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The American College

(An Autonomous Institution Affiliated to Madurai Kamaraj University)

Madurai -625002

Meeting of the Academic Council

Wednesday, June 10, 2015
10:00 am

Venue
Main Hall

APPENDIX AJ
Vol. I

AGENDA

1. Prayer
2. Welcome address - Dr. M. Davamani Christober
   Principal & Secretary
3. Confirmation of the minutes of the meeting of the Academic Council held on March 7, 2014
4. Special resolutions
   a. Resolutions 1 to 4
5. Departmental resolutions: Undergraduate programmes (Aided)
   a. Resolutions 5 to 20
6. Departmental resolutions: Postgraduate programmes (SF)
   a. Resolutions 21 to 25
7. Departmental resolutions: Undergraduate programmes (SF)
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   a. Resolution 42
9. Community College
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THE AMERICAN COLLEGE, MADURAI
(An Autonomous Institution Affiliated to Madurai Kamaraj University)

MINUTES OF THE ACADEMIC COUNCIL MEETING HELD ON FRIDAY 07 March 2014 IN THE MAIN HALL

Dr. M. Davamani Christober, Principal and Secretary, was in the chair.

The Meeting began with prayer by Rev. Dr. S. Joseph Wellington.

The Principal welcomed all the members of the Academic Council on behalf of the college and extended a special word of welcome to the external members from the other institutions: Dr. C. Seethalakshmi, Joint Director of Collegiate Education, Madurai Region, Madurai. Dr. G. Jeyalakshmi, Head of the Department of English Language Studies and Member Syndicate, Madurai Kamaraj University, and Dr. J. Daniel Chellappa, Senior Scientist, Department of Atomic Energy, (BARC), Kalpakkam, Chennai.

He acknowledged the good work done by all the Deans, Additional Deans, Heads of the Departments, Members of the faculty for processing the curriculum planning and the proposals for the present Academic Council. He recognised the meticulous work done by the Office of the Dean for Academic Policies and Administration, Dr. J. Karunyal, Dean and Dr. J. Paul Jayakar, Additional Dean for Academic Policies and Administration.

The Principal felt very happy that all the faculty members had involved in this academic exercise at various levels and stages. He informed the House that this academic endeavour was thoroughly proposed and scrutinized by the members of the departments concerned in their department meetings, Boards of Studies, the College Senatus, and now the Academic Council. Academically and research-wise, this year too was a productive year, he contended. With these introductory observations, the Chairman invited all the members to scrutinize the proposals that were being presented in the House.

The Minutes of the previous Academic Council Meeting held on 24.09.2010 was placed before the Academic Council for confirmation. .

Since there was no question raised, the Minutes of the Academic Council Meeting held on 24.09.2010 was passed unanimously.

Special Resolutions

As a follow-up action to the suggestions on the retention of the Assignment component as part of Continuous Internal Assessment and on the reopening of the June Repeat Examinations opportunities to all students of the college irrespective of the semester/year made by the members in the meeting of the Academic Council held on 24.09.2010 and as subsequently decided in the appropriate forums, it was decided to reintroduce the Assignment component at the undergraduate level for 20 marks and the June Repeat Examinations for all the students. Accordingly, the following resolutions were moved.

R1: RESOLVED to accept the changes in the continuous internal assessment as 30:30:20:20for Test I, Test II, Quiz (I&II), Assignment (I & II) respectively with retrospective effect from the academic year 2011-2012.

Resolution was moved by Prof. J. Jesupaul Thangaraj and seconded by Dr. A. Martin David

Resolution was passed unanimously.

R2: RESOLVED to re-introduce the June Repeat Examinations for all the students of the college, with retrospective effect from the academic year 2012-2013.

Resolution was moved by Prof. J. Jesupaul Thangaraj and seconded by Dr. A. Martin David

Resolution was passed unanimously.

R3: RESOLVED to accept a two hour end-of-semester examination for all the undergraduate courses that have three or less than three credits, with effect from April 2014.

Resolution was moved by Prof. J. Jesupaul Thangaraj and seconded by Dr. A. Martin David

After discussion it was resolved to incorporate the phrase "**diploma and certificate courses**" after "undergraduate courses" in Resolution No: 3.

Resolution was passed unanimously.

In response to the requests made by students who had already completed B.Sc., and M.Sc.degree programmes and to enhance employment opportunities without any ambiguity, it was decided in the Senatus to change the nomenclature of the undergraduate and postgraduate science programmes that have the tag "special" and specialisation details within parentheses the following resolution were moved.

R4: RESOLVED to change the nomenclature from "B.Sc. (Special)" to"B.Sc." in Mathematics (aided & SF), Physics (aided & SF), Chemistry, Zoology, Microbiology, Bio-Chemistry, and Computer Science with retrospective effect from the academic year 2011-2012.

R4 (i): RESOLVED to change the nomenclature from "B.Sc. (Special)" to "B.Sc." in Mathematics (aided & SF), Physics (aided & SF), Chemistry, Zoology, Microbiology, Bio-Chemistry, and Computer Science with effect from the academic year 2014- 2015.

Resolutions were moved by Dr. J. Karunyal and seconded by Dr. J. Paul Jayakar

Resolutions were passed unanimously.

R5: RESOLVED to remove the specialization details from the course nomenclature in B.Sc. Botany, B.Sc. Zoology, and B.Sc. Microbiology with retrospective effect from the academic year 2011-2012.

R5(i): RESOLVED to remove the specialization details from the course nomenclature in B.Sc. Botany, B.Sc. Zoology, and B.Sc. Microbiology with effect from the academic year 2014-2015.

Resolutions were moved by Dr. J. Karunyal and seconded by Dr. J. Paul Jayakar

Resolutions were passed unanimously.

R6: RESOLVED to remove the specialization details from the course nomenclature in M.Sc. Botany and M.Sc. Zoology with retrospective effect from the academic year 2012-2013.

R6(i): RESOLVED to remove the specialization details from the course nomenclature in M.Sc. Botany and M.Sc. Zoology with effect from the academic year 2014-2015.

Resolutions were moved by Dr. J. Karunyal and seconded by Dr. J. Paul Jayakar

Resolutions were passed unanimously.

R7: RESOLVED to accept the changes for Part I - General Hindi and Advanced Hindi and Part IV Life Skills and the syllabi as presented on pages from HIN 1 to HIN 13 with effect from the academic year 2014-2015.

Resolution was moved by Dr. A. Saframma and seconded by Mrs. B. Poongodi

Resolution was passed unanimously.

R8: RESOLVED to adopt the syllabi of Part I General Hindi and Advanced Hindi of aided-stream for the Part I and Part IV of Self-financed courses as presented on pages from HIS 1 to HIS 12 with effect from the academic year 2014-2015.

Resolution was moved by Dr. A. Saframma and seconded by Mrs. B. Poongodi

Resolution was passed unanimously.

Hindi is one of the languages that is considered as the official language of the Union Government of India and official language of some States. Learning Hindi is essential in India for communication because several Indian states use Hindi as the State Official language. Knowledge of Hindi is highly useful as it broadens one's employment potentials. It is also a doorway to higher studies in any of the Indian universities. With this introduction the following resolution was moved.

R9: RESOLVED to accept the programme of studies for B.A. Hindi (Self-financed) as presented on pages from HIS 13 to HIS 15 and the syllabi for the program as presented from pages HIS 16 to HIS 41 with effect from the academic year 2014-2015.

Resolution was moved by Dr. A. Saframma and seconded by Mrs.B.Poongodi

After discussion it was resolved to incorporate all the corrections suggested by the members in the B.A. Hindi grid, and prescriptive & descriptive syllabus.
Resolution was passed unanimously.

R10: RESOLVED to accept the programme of studies for a new certificate course in Hindi and the syllabi for the course as presented on page HIS 42 with effect from the academic year 2014-2015.

Resolution was moved by Dr. A. Saframma and seconded by Mrs. B. Poongodi

Resolution was passed unanimously.

R11: RESOLVED to accept the changes for Part I - General French and Advanced French and the syllabi as presented on pages from FRE 1 to FRE 4 with effect from the academic year 2014-2015.

Resolution was moved by Ms. B. Vijaya and seconded by Mr. G. Victor Packiyaraj

Resolution was passed unanimously.

R12: RESOLVED to adopt the syllabi of Part I General French and Advanced French aided-stream for the Part I and Part IV of Self-financed courses as presented on pages from FRS 1 to FRS 4 with effect from the academic year 2014-2015.

Resolution was moved by Ms. B. Vijaya and seconded by Mr. G. Victor Packiyaraj

Resolution was passed unanimously.

In this era of digital connectivity, the ability to use a foreign language like French is of high value. French is not merely the language of France but is one of the world's most important languages in terms of its role in various fields such as science, industry, and international diplomacy with these introductory remarks the following resolution was moved.

R13: RESOLVED to accept the programme of studies for B.A. French (Self-financed) as presented on pages from FRS 5 to FRS 7 and the syllabi for the programme as presented on pages from FRS 8 to FRS 25 with effect from the academic year 2014-2015.

Resolution was moved by Ms. B. Vijaya and seconded by Mr. G. Victor Packiyaraj

Resolution was passed unanimously.

R 14: RESOLVED to accept the programme of studies for a new certificate course in French and the syllabi for the course as presented in page FRS 26 with effect from the academic year 2014-2015.

Resolution was moved by Mr. G. Victor Packiyaraj and seconded by Ms. B. Vijaya

Resolution was passed unanimously.

Dr. J. John Sekar informed the House that Part II language courses had not undergone any change both structure- and content-wise during the last two decades. So far the structural method has been followed and now in order to keep pace with the modern trend and to follow

communicative language teaching methodology, the present syllabus for Part II English proposes to cater to the needs of students in the changing world.

R15: RESOLVED to accept the changes in the programme of studies for BA English as presented on pages from ENG 1 to ENG 3 and the syllabi for the programme as presented on pages from ENG 4 to ENG 14 with effect from the academic year 2014 – 2015.

Resolution was moved by Dr. J. John Sekar and seconded by Prof. N. Elango

To a query raised by Prof. S. Stephen regarding the conduct of external exam for the course ENG 1361, Conversational Skills, Dr. J. John Sekar informed the House that the Board of Studies in English decided to introduce 100% oral examination for the end-of-semester examination.

Resolution was passed unanimously.

In response to the policy of the college and the needs and demands of society for accommodating more students in BA English, the department unanimously decided to start an additional section under self-financed scheme. Accordingly, the following resolution was moved.

R16: RESOLVED to adopt the syllabi of BA English with the necessary changes in the cluster courses for BA English (Self-financed) programme as presented on pages from ENS 1 to ENS 3 and the syllabi for the programme as presented on pages from ENS 4 to ENS 26 with effect from the academic year 2014 – 2015.

Resolution was moved by Dr. J. John Sekar and seconded by Prof. N. Elango.

It was resolved to delete certain items in the course content of Business English (Life Skills course) as suggested by Dr. C. Vijayakumar.

Resolution was passed unanimously.

R17: RESOLVED to adopt the syllabi of Part II General English of the aided-stream for Part II of Self-financed courses as presented on pages from ENS 27 to ENS 28 with effect from the academic year 2014-2015.

Resolution was moved by Dr. J. John Sekar and seconded by Prof. N. Elango.

Resolution was passed unanimously.

At this juncture Dr. G. Jeyalakshmi congratulated the Department of English on bringing about changes in the Part II curriculum and making it skills-based and in particular the evaluation system that is going to be adopted from the academic year 2014 – 2015. Further the external member offered her help in designing testing and evaluation patterns. Training in TOEFL, IELTS, and BEC could be given to students of Part II so that students will be better trained to compete globally. Dr. G. Jeyalakshmi also insisted that students should also be trained in the Tamil language.

The JDCE informed the House that steps were being taken by the Government to extend sponsorship to students to get training in English language skills and soft skills in overseas universities.

R18: RESOLVED to introduce the course RPS 1230 – Environment and Ethical Issues and RPS 3214 – Career Development Skills with modifications as presented on pages from RPS 1 to RPS 2, with effect from the academic year 2014-2015.

Resolution was moved by Dr. M. G. Rethan and seconded by Prof. C. Premkumar Immanuel

Resolution was passed unanimously.

The Undergraduate Department of Microbiology was started in the year 1997 and was suspended in the year 2001. In order to cater to the needs of students' employment opportunities the College Management decided to resume the course from the year 2014 – 2014. With these few words the following resolution was moved.

R19: RESOLVED to accept the programme of studies for B.Sc. Microbiology as presented on pages from MIC 1 to MIC 3 and the syllabi for the resumed programme as presented on pages from MIC 4 to MIC 43 with retrospective effect from the academic year 2013-2014.

Resolution was moved by Dr. C. M. Jeyachandra and seconded by Ms. J. Stella Mary.

After discussion the resolution was passed unanimously.

R20: RESOLVED to change the course codes of "Economic Development and Planning" and "Fiscal Economics" from ECO 3422 to ECO 3426 and from ECO 3424 to ECO 3428 respectively with retrospective effect from the academic year 2010-2011.

Resolution was moved by Dr. L. Ruban Dennis Joel and seconded by Dr. C. Muthuraja

Resolution was passed unanimously.

Bachelor of Commerce with Information Technology (B.Com IT) degree programme will offer students a wide range of employment opportunities and enable students to have enough exposure in various fields of commerce and information technology. This course will also help students meet the demands and rapid changes that happen in this global era. With these few introductory remarks the following resolution was moved.

R21: RESOLVED to accept the programme of studies for B.Com. (Information Technology) as presented on pages from Errata 13 to Errata 16 and the syllabi for the programme for I and II Semesters as presented on pages from Errata 16 to Errata 30 with effect from the academic year 2014-2015.

Resolution was moved by Ms. R. Mary Sophia Chitra and seconded by Dr. A. Martin David

After a long discussion it was **resolved to permit the Department of Commerce – Information and Technology to implement the first and second semester syllabi with**

necessary changes and corrections. The Chairman ruled that the syllabi of the remaining semesters be taken back to the Board of Studies for reconsideration in the light of the suggestions made in the House.

Resolution was passed unanimously.

R22: RESOLVED to accept the changes in the programme of studies for BBA as presented on pages from Errata 31 to Errata 32, and the syllabi for the programme as presented on pages from BBA 3 to BBA 36 with effect from the academic year 2014-2015.

Resolution was moved by Dr. S.C.B. Samuel Anbuselvan and seconded by Mr. S.Sathya Dev

Resolution was passed unanimously.

R23: RESOLVED to accept the changes in the programme of studies in NSS under Part-V for the I year and II year students as presented on pages from NSS 1 to NSS 2 with effect from the academic year 2014-2015.

Resolution was moved by Dr. S.C.B. Samuel Anbuselvan and seconded by Prof.S.T.Jacob Ponraj

Resolution was passed unanimously.

Lt. Sagimaynonathan informed the House that NCC (ARMY) is offering Life Skill courses under Part IV for the first time since autonomy. So far NCC was offered only in Part V. With this the following resolutions were moved.

R24: RESOLVED to accept the introduction of NCA 1204 and NCA 2205 as Life Skills courses under Part IV as presented on pages from NCC 1 to NCC 4 with retrospective effect from the Academic year 2013-2014.

R24 (a): RESOLVED to accept the changes in NCA 1206 and NCA 2206 under Part V as presented on page NCC 4 with retrospective effect from the Academic year 2013-2014.

Resolutions were moved by Capt.Prof.V.P. Sagimaynonathan and seconded by Lt.Dr. S. Israel

Resolution were passed unanimously.

Lt. Dr. S. Israel informed the House that the NCC had added a new leaf in the history of the American College. NCC of the College pioneered in framing the syllabus along with the other members of the Board of Studies for NCC. This syllabus had been prescribed for the entire Nation. With these introductory remarks the following resolutions were moved.

R25: RESOLVED to accept the introduction of NCN 1204 and NCN 2205 as Life Skills courses under Part IV as presented on pages from NCC 5 to NCC 8 with retrospective effect from the Academic year 2013-2014.

R25(a): RESOLVED to accept the changes in NCN 1206 and NCN 2206 under Part V as presented on pages from NCC 8 to NCC 9 with retrospective effect from the Academic year 2013-2014.

Resolutions were moved by Lt. Dr. S. Israel and seconded by Capt. Prof. V.P. Sagimaynonathan

Resolutions were passed unanimously.

Prof. N. Elango informed the House that in order to revitalise and contemporarise the M.A. English programme the following changes have been effected without changing the grid with this the following resolution was moved.

R26: RESOLVED to accept the changes in the programme of studies for M.A. English as presented on page PGE 1 and the syllabi for the programme as presented on pages from PGE 2 to PGE 18 with effect from the academic year 2014-2015.

Resolution was moved by Prof. N. Elango and seconded by Dr. J. John Sekar

Resolution was passed unanimously.

R27: RESOLVED to accept the changes in the programme of studies for M.Sc. Mathematics as presented on page PGM 1 with retrospective effect from the academic year 2012-2013 and on page PGM 2 with effect from the academic year 2014-2015 and the syllabi for the programme as presented on pages from PGM 3 to PGM 18.

Resolution was moved by Prof. M. Jeyakumar and seconded by Prof. P. Jeyakodibalan Premkumar

Resolution was passed unanimously.

R28: RESOLVED to accept the programme of studies for Master of Computer Application as presented on pages from MCA 1 to MCA 2 and the syllabi for the programme as presented on pages from MCA 3 to 51 with effect from the academic year 2014-2015.

Resolution was moved by Prof. J. Frank Reuban and seconded by Dr. J. John Jeya Kamaraj

After discussion the resolution was passed unanimously.

R29: RESOLVED to accept the changes in the programme of studies for MBA as presented on page Errata 33 and the syllabi for the programme as presented on pages from Errata 34 to Errata 46 with effect from the academic year 2014-2015.

Resolution was moved by Dr. S. Raju and seconded by Prof. C. Reena Elizabeth

Resolution was passed unanimously.

Prof. N. Elango informed the House that with the aim of intensifying and increasing the quality of research in the M.Phil programme offered by the Department of English, the department has effected certain changes in the syllabus. With these introductory remarks the following resolution was moved.

R30: RESOLVED to accept the changes in the programme of studies for M.Phil English as presented on page MPE 1 and the syllabi for the programme as presented on pages from MPE 2 to MPE 4 with effect from the academic year 2014-2015.

Resolution was moved by Prof. N. Elango and seconded by Dr. J. John Sekar

Dr. C. Muthuraja wanted 'Synopsis' to be included in one of the units in MPE 6611, Research Methodology. It was agreed.

Resolution was passed unanimously.

Special Resolution

Prof. S. Stephen informed the House that for the first time in the history of the college an officer has been honoured with a Defence Secretary's Commendation Cord and therefore suggested that a special resolution be moved to place the appreciations of the House on record for Lt. Dr. S. Israel. Accordingly, the Chairman asked the Dean of Academic Policies and Administration to move a special resolution to that effect

R31: Resolved to place on record the appreciation of this House to Lt. Dr. S. Israel on his being honoured with the Defence Secretary's Commendation Cord by the Ministry of Defence for the year 2013 – 2014.

Resolution was moved by Dr. J. Karunyal and seconded by Dr. J. Paul Jayakar

Resolution was passed unanimously.

Dr. J. Daniel Chellappa, Senior Scientist, Technical Coordination Wing, BARC, Chennai, suggested that the American College should explore the possibilities of having collaboration with IGCAR (Indira Gandhi Culture for Atomic Research), BARC, and all funding resources for research activities.

The Principal said that all the suggestions were well taken and appropriate steps would be taken for incorporating all the suggestions in the curriculum which would be useful to students.

Other matters, if any

Prof. S. Stephen and Dr. A. Robson Benjamin brought matters which were not related to the resolutions which the House already passed; therefore the Chairman disallowed any discussion on such matters.

Since there was no other matter, the Chairman requested Dr. G. C. Abraham, the Vice Principal to propose a vote of thanks.

Vote of thanks

Dr. G. C. Abraham, the Vice Principal thanked all the External members for their presence, support and their valuable suggestions and also placed on record appreciations to Dean

Dr. J. Karunyal and Additional Dean Dr. J. Paul Jayakar and the other Deans and Additional Deans for taking up the responsibility to scrutinize all the proposals presented in the meeting. He also thanked Dr. J. John Sekar, Dean for Curriculum and Research for all the help. He thanked all the Heads of the Departments, the faculty members, and the student members. He also thanked Mr. K. Rajendran and other clerical staff for all the secretarial work relating to the conduct of the Academic Council meeting.

The Meeting was adjourned.

J. Karunyal

(Dr. J. Karunyal)
Dean for Academic Policies & Administration

(Dr. M. Davamani Christober)
Principal & Secretary

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RESOLUTIONS

Special Resolutions

R. 1: In response to the policy directions from the Director of Collegiate Education and as recommended by the Senatus, RESOLVED to accept the changes in the new CBCS Grid for all undergraduate courses as presented on page SR 1 to be implemented from the academic year 2015 - 2016.

R.2: In response to the policy directions from the AICTE and as recommended by the Senatus, RESOLVED to admit students who have completed Bachelor's Degree of minimum 3 years duration in BCA and B.Sc (Information Technology / Computer Science) with Mathematics as a course at 10 + 2 level or at graduate level shall be eligible for admission to second year MCA programme with retrospective effect from the academic year 2013 – 2014.

R.3: As recommended by the Senatus, RESOLVED to introduce Diploma Courses in Medical Lab Technology and Aquaculture under Community College approved by the University Grants Commission with retrospective effect from the academic year 2014 – 2015.

R.4: As recommended by the Senatus, RESOLVED to introduce Human Value Education as Life Skill course under Part IV for all third year Self-financed programmes with effect from the academic year 2015 – 2016.

Departmental Resolutions: Undergraduate Programmes (Aided)

R.5: As recommended by the Board of Studies in Tamil, RESOLVED to accept the changes in the programme of studies for BA Tamil as presented on pages from TAM 1 to TAM 2 and the syllabi for the programme for I and II Semesters as presented on pages from TAM 3 to TAM 18 with effect from the academic year 2015 – 2016.

R.6: As recommended by the Board of Studies in Hindi, RESOLVED to accept the changes in PART I as presented on page HIN 1 and the syllabi for PART I as presented on pages from HIN 2 to HIN 5 with effect from the academic year 2015-2016.

R.7: As recommended by the Board of Studies in French, RESOLVED to accept the changes in PART I as presented on page FRE 1 and the syllabi for PART I as presented on pages from FRE 1 to FRE 3 with effect from the academic year 2015-2016.

R.8: As recommended by the Board of Studies in English, RESOLVED to accept the changes in the programme of studies for BA English as presented on pages from ENG 1 to ENG 3 and the syllabi for the programme for I and II Semesters as presented on pages from ENG 4 to ENG 16 with effect from the academic year 2015 – 2016.

R.9: As recommended by the Board of Studies in Mathematics, RESOLVED to accept the changes in the programme of studies for B.Sc Mathematics as presented on pages from MAT 1 to MAT 2 and the syllabi for the programme for I and II Semesters as presented on pages from MAT 3 to MAT 10 with effect from the academic year 2015 – 2016.

R.10: As recommended by the Board of Studies in Physics, RESOLVED to accept the changes in the programme of studies for B.Sc Physics as presented on pages from PHY 1 to PHY 5 and the syllabi for the programme for I and II Semesters as presented on pages from PHY 6 to PHY 17 with effect from the academic year 2015 – 2016.

R.11: As recommended by the Board of Studies in Chemistry, RESOLVED to accept the changes in the programme of studies for B.Sc Chemistry as presented on pages from CHE 1 to CHE 2 and the syllabi for the programme for I and II Semesters as presented on pages from CHE 3 to CHE 15 with effect from the academic year 2015 – 2016.

R.12: As recommended by the Board of Studies in Botany, RESOLVED to accept the changes in the programme of studies for B.Sc Botany as presented on pages from BOT 1 to BOT 2 and the syllabi for the programme for I and II Semesters as presented on pages from BOT 3 to BOT 16 with effect from the academic year 2015 – 2016.

R.13: As recommended by the Board of Studies in Zoology, RESOLVED to accept the changes in the programme of studies for B.Sc Zoology as presented on pages from ZOO 1 to ZOO 3 and the syllabi for the programme for I and II Semesters as presented on pages from ZOO 4 to ZOO 13 with effect from the academic year 2015 – 2016.

R.14: As recommended by the Board of Studies in Economics, RESOLVED to accept the changes in the programme of studies for B.A Economics (Tamil and English medium) as presented on pages from ECO 1 to ECO 2 and the syllabi for the programme for I and II Semesters as presented on pages from ECO 2 to ECO 9 with effect from the academic year 2015 – 2016.

R.15: As recommended by the Board of Studies in Commerce, RESOLVED to accept the changes in the programme of studies for B.Com Commerce as presented on pages from COM 1 to COM 2 and the syllabi for the programme as presented on pages from COM 3 to COM 33 with effect from the academic year 2015 – 2016.

R.16: As recommended by the Board of Studies in Religion, Philosophy and Sociology, RESOLVED to accept the changes in the programme of studies for Religion, Philosophy, and Sociology as presented on pages from RPS 1 to RPS 2 and the syllabi for the programme as presented on pages from RPS 3 to RPS 33 with effect from the academic year 2015 – 2016.

R.17: As recommended by the Board of Studies in NCC (ARMY), RESOLVED to accept the changes in the programme of studies for NCA as presented on pages from NCC 1 to NCC 5 with effect from the academic year 2015 - 2016.

R.18: As recommended by the Board of Studies in NCC (NAVY), RESOLVED to accept the changes in the programme of studies for NCN as presented on pages from NCC 6 to NCC 10 with effect from the academic year 2015-2016.

R.19: As recommended by the Board of Studies in NCC (ARMY), RESOLVED to introduce the programme of studies for NCW (Self-financed women students) and the syllabi for the programme as presented on pages from NCC 11 to NCC 15 with effect from the academic year 2015-2016.

R.20: As recommended by the Board of Studies in Service Learning Programme, RESOLVED to accept the syllabi and evaluation pattern for the SLP courses offered under Part V as presented on pages from SLP 1 to SLP 12 with retrospective effect from the academic year 2014 – 2015.

Departmental Resolutions: Postgraduate Programmes (SF)

R.21: As recommended by the Board of Studies in English (Self-financed), RESOLVED to introduce the programme of studies for MA English (Self-financed) as presented on page PSE 1 and the syllabi for the programme for I and II semesters as presented on pages from PSE 2 to PSE 15 with effect from the academic year 2015-2016.

R.22: As recommended by the Board of Studies in Physics (Self-financed), RESOLVED to introduce the changes in the programme of studies for M.Sc Physics as presented on page PSP 1 and the syllabi for the programme for I and II semesters as presented on pages from PSP 2 to PSP 15 with effect from the academic year 2015-2016.

R.23: As recommended by the Board of Studies in Environmental Science, RESOLVED to introduce the programme of studies for M.Sc Environmental Science as presented on pages from PES 1 to PES 2 and the syllabi for the programme for I and II semesters as presented on pages from PSE 3 to PSE17 with effect from the academic year 2015-2016.

R.24: As recommended by the Board of Studies in Social Work, RESOLVED to accept the changes in the programme of studies for MSW as presented on pages MSW 1 and MSW 2 and the syllabi for the programme as presented on pages from MSW 3 to MSW 65 with effect from the academic year 2015-2016.

R.25: As recommended by the Senatus, RESOLVED to accept the changes in the Course code as presented on page MPE 1 with retrospective effect from the academic year 2014 – 2015.

Departmental Resolutions: Undergraduate Programmes (SF)

R.26: As recommended by the Board of Studies in Hindi, RESOLVED to accept the changes in the programme of studies for B.A. Hindi (Self-financed) as presented on pages from HIS 1 to HIS 4 and the syllabi for the programme as presented on pages from HIS 5 to HIS 31 with effect from the academic year 2015-2016.

R.27: As recommended by the Board of Studies in French, RESOLVED to accept the changes in the programme of studies for B.A. French (Self-financed) as presented on pages from FRS 1 to FRS 5 and the syllabi for the programme as presented on pages from FRS 6 to FRS 27 with effect from the academic year 2015-2016.

R.28: As recommended by the Board of Studies in English (Self-financed), RESOLVED to accept the changes in the programme of studies for BA English (Self-financed) as presented on pages from ENS 1 to ENS 4 and the syllabi for the programme for I and II Semesters as presented on pages from ENS 5 to ENS 19 with effect from the academic year 2015 – 2016.

R.29: As recommended by the Board of Studies in Mathematics (Self-financed), RESOLVED to accept the changes in the programme of studies for B.Sc Mathematics (Self-financed) as presented on pages from MAS 1 to MAS 2 and the syllabi for the programme for I and II Semesters as presented on pages from MAS 3 to MAS 10 with effect from the academic year 2015 – 2016.

R.30: As recommended by the Board of Studies in Physics (Self-financed), RESOLVED to accept the changes in the programme of studies for B.Sc Physics (Self-financed) as presented on pages from PHS 1 to PHS 2 and the syllabi for the programme for I and II Semesters as presented on pages from PHS 3 to PHS 16 with effect from the academic year 2015 – 2016.

R.31: As recommended by the Board of Studies in Chemistry (Self-financed), RESOLVED to introduce the programme of studies for B.Sc Chemistry (Self-financed) as presented on pages from CHS 1 to CHS 2 and the syllabi for the programme for I and II Semesters as presented on pages from CHS 3 to CHS 14 with effect from the academic year 2015 – 2016.

R.32: As recommended by the Board of Studies in Bio-Chemistry (Self-financed), RESOLVED to accept the changes in the programme of studies for B.Sc Bio-Chemistry (Self-financed) as presented on pages from BCH 1 to BCH 2 and the syllabi for the programme as presented on pages from BCH 3 to BCH 35 with effect from the academic year 2015 – 2016.

R.33: As recommended by the Board of Studies in Microbiology (Self-financed), RESOLVED to accept the changes in the programme of studies for B.Sc Microbiology (Self-financed) as presented on pages from MIC 1 to MIC 3 and the syllabi for the programme for I and II Semesters as presented on pages from MIC 4 to MIC 15 with effect from the academic year 2015-2016.

R.34: As recommended by the Board of Studies in Computer Science, RESOLVED to accept the changes in the programme of studies for B.Sc Computer Science as presented on pages from COS 1 to COS 3 and the syllabi for the programme as presented on pages from COS 4 to COS 31 with effect from the academic year 2015-2016.

R.35: As recommended by the Board of Studies in Visual Communication, RESOLVED to accept the changes in the programme of studies for B.Sc Visual Communication for I and II Semesters as presented on page BVC 1 and the syllabi for the programme for I and II Semesters as presented on pages from BVC 2 to BVC 11 with effect from the academic year 2015-2016.

R.36: As recommended by the Board of Studies in Information Technology, RESOLVED to introduce the programme of studies for B.Sc (Information Technology) as presented on pages from BIT 1 to BIT 3 and the syllabi for the programme for I and II Semesters as presented on pages from BIT 4 to BIT 11 with effect from the academic year 2015-2016.

R.37: As recommended by the Board of Studies in Commerce, RESOLVED to accept the changes in the programme of studies for B.Com. (Self-financed) as presented on pages from CME 1 to CME 2 and the syllabi for the programme as presented on pages from CME 3 to CME 33 with effect from the academic year 2015-2016.

R.38: As recommended by the Board of Studies in Commerce, RESOLVED to accept the changes in the programme of studies for B.Com (Computer Application) (Self-financed) as presented on pages from CMC 1 to CMC 2 and the syllabi for the programme as presented on pages from CMC 3 to CMC 35 with effect from the academic year 2015-2016.

R.39: As recommended by the Board of Studies in Commerce, RESOLVED to accept the changes in the programme of studies for B.Com. (Information Technology) as presented on pages from CIT 1 to CIT 2 and the syllabi for the programme as presented on pages from CIT 3 to CIT 39 with effect from the academic year 2015-2016.

R.40: As recommended by the Board of Studies in Business Administration, RESOLVED to accept the changes in the programme of studies for BBA as presented on page BBA 1 and the syllabi for the programme as presented on pages from BBA 2 to BBA 34 with effect from the academic year 2015-2016.

R.41: As recommended by the Board of Studies in Computer Application, RESOLVED to accept the changes in the programme of studies for BCA as presented on pages from BCA 1 to BCA 3 and the syllabi for the programme as presented on pages from BCA 4 to BCA 30 with effect from the academic year 2015-2016.

Human Value Education

R.42: As recommended by the Board of Studies in Human Value Education, RESOLVED to introduce Human Value Education as Life Skill course under Part IV for all third year Self-financed programmes and the syllabus as presented on page HVS 1 with effect from the academic year 2015 – 2016.

Community College

R.43: As recommended by the Board of Studies in Community College, RESOLVED to introduce Diploma Course in Medical Lab Technology and the syllabus as presented on pages from DML 1 to DML 21 with retrospective effect from the academic year 2014 – 2015.

R.44: As recommended by the Board of Studies in Community College, RESOLVED to introduce Diploma Course in Aquaculture and the syllabus as presented on pages from DAQ 1 to DAQ 18 with retrospective effect from the academic year 2014 –2015.

Certificate Courses in English

R.45: As recommended by the Board of Studies in English, RESOLVED to introduce certificate courses in English as presented on page CCE 1 and the syllabi for the courses as presented on pages from CCE 2 to CCE 8 with effect from the academic year 2015 – 2016.

New CBCS GRID for all undergraduate programmes with effect from the academic year 2015-2016

Semester-wise distribution of course of 180 hrs with 158 credits + 2

I semester					II semester		
course	hours	credit			course	hours	credit
PART I	3	2			PART I	3	2
PART II	3	2			PART II	3	2
MAJOR	13(3)	13			MAJOR	13(3)	13
LS1	3	2			LS2	3	2
NME1	3	2			NME2	3	2
SUPPO	5	4			SUPPO	5	4
	30	**25**				**30**	**25**
PART V							25+1

III semester					IV semester		
PART I	3	2			PART I	3	2
PART II	3	2			PART II	3	2
MAJOR	19(4)	19			MAJOR	19(4)	19
SUPPO	5	4			SUPPO	5	4
	30	**27**				**30**	**27**
PART V							23+1

V semester					VI semester		
LS3	3	2			LS4	3	2
VAL/EVS*	4	2			VAL/EVS**	4	2
MAJOR	23(4)	23			MAJOR	23(4)	23
	30	**27**				**30**	**27**
					Total hours/ Credits	**180**	**158+2**

NME Non-Major Elective **LS - Life skill courses**

SUPPO Supportive courses

VAL/EVS* Value Education for TAM, ENG, ECO,ECE,COM, RPS (ENS, FRS, HIS, BBA,CMC ,CIT, CME, COS,BCA) STUDENTS
Environmental Studies for MAT, PHY, CHE, BOT, ZOO (BVC, BCH,MAS, MIC ,PHS,) students

VAL/EVS** Environmental Studies for TAM, ENG, ECO,ECE,COM, RPS (ENS, FRS, HIS, BBA,CMC ,CIT, CME, COS,BCA) STUDENTS
Value Education for MAT, PHY, CHE, BOT, ZOO (BVC, BCH,MAS, MIC ,PHS,) students

DEPARTMENT OF TAMIL (UG)

Choice Based Credit System 2015 -2016

Programme for B.A. Degree in Tamil

SEM	PART	COURSE CODE	COURSE TITLE	Hrs\Wk	Cr.	MARKS
I	I	TAM 1201	பொதுத்தமிழ் - I	3	2	30
I	II	ENG 1201	Conversational Skills	3	2	30
I	III C	TAM 1421	மொழி - அடிப்படை	4	4	60
I	III C	TAM 1523	கவிதை–அடிப்படை	5	5	75
I	III C	TAM 1425	இலக்கியவரலாறு - I	4	4	60
I	LS I	TAM 1209	தொடர்பியல்	3	2	30
I	IV E	NME 0000	Non- Major Electives	3	2	30
I	III SUP	TAM 1427	தொல்லியலும் தமிழகமும்	5	4	60
				30	25	375

SEM	PART	COURSE CODE	COURSE TITLE	Hrs\Wk	Cr.	MARKS
II	I	TAM 1202	பொதுத்தமிழ் - II	3	2	30
II	II	ENG 1202	Reading & Writing Skills	3	2	30
II	III C	TAM 1422	இக்காலக் கவிதை	4	4	60
II	III C	TAM 1524	புனைகதை	5	5	75
II	III C	TAM 1426	இலக்கியவரலாறு - II	4	4	60
II	LS II	TAM 1210	திரைப்படரசனையும் குறும்படங்களும்	3	2	30
II	IV E	NME 0000	Non- Major Electives	3	2	30
II	III SUP	TAM 1428	நாட்டுப்புற வழக்காற்றியல்	5	4	60
				30	25	375

SEM	PART	COURSE CODE	COURSE TITLE	Hrs\Wk	Cr.	MARKS
III	I	TAM 2201	பொதுத்தமிழ் - III	3	2	30
III	II	ENG 2201	Study Skills	3	2	30
III	III C	TAM 2521	சங்கம் - அகநெறி	5	5	75
III	III C	TAM 2523	கவிதை–இறைநெறி	5	5	75
III	III C	TAM 2525	நன்னூல் - எழுத்து	5	5	75
III	III C	TAM 2427	புதிய ஊடகங்களும் தமிழும்	4	4	60
III	III SUP	TAM 2429	பிறமொழி இலக்கியம்	5	4	60
				30	27	405

SEM	PART	COURSE CODE	COURSE TITLE	Hrs\Wk	Cr.	MARKS
IV	I	TAM 2202	பொதுத்தமிழ் - IV	3	2	30
IV	II	ENG 2202	Career Skills	3	2	30
IV	III C	TAM 2522	சங்கம் - புறநெறி	5	5	75
IV	III C	TAM 2524	இயக்கமும் இலக்கியமும்	5	5	75
IV	III C	TAM 2526	நன்னூல் - சொல்	5	5	75
IV	IIIC	TAM 2428	திரைப்படக்கலை	4	4	60
IV	III SUP	TAM 2430	சித்தர் நெறி	5	4	60
				30	27	405

SEM	PART	COURSE CODE	COURSE TITLE	Hrs\Wk	Cr.	MARKS
V	III C	TAM 3621	யாப்பும் அணியும்	6	6	90
V	III C	TAM 3623	சிற்றிலக்கியம்	6	6	90
V	III C	TAM 3625	இக்காலமொழியியல்	6	6	90
V	III C	TAM 3527	நாடகம் - அடிப்படை	5	5	75
V	LS III	TAM 3209	போட்டித் தேர்வில் தமிழ்	3	2	30
V	IV VE	VEL 0000	Value Education	4	2	30
				30	27	405

SEM	PART	COURSECODE	COURSE TITLE	Hrs\Wk	Cr.	MARKS
VI	III C	TAM 3622	இலக்கியக் கோட்பாடு	6	6	90
VI	III C	TAM 3624	காப்பியம்	6	6	90
VI	III C	TAM 3626	தமிழ்ச் சமுதாயவரலாறு	6	6	90
VI	III C	TAM 3228	நாடகம் - அரங்கியற் கூறுகள்	5	5	75
VI	LS IV	TAM 3210	இலக்கிய ரசனையும் படைப்புக் கலையும்	3	2	30
VI	EVS	TAM 3212	சுற்றுச்சூழலும் தமிழிலக்கியமும்	4	2	30
				30	27	405
				180	158	2370

C :Major Core S : Supportive LS : Life Skill
NME; Non- Major Electives VE : Value Education EVS : Environmental Studies

PART III Supportive

SEM	COURSE CODE	COURSE TITLE	Hrs\Wk	Cr.	MARKS
I	TAM 1427	தொல்லியலும் தமிழகமும்	5	4	60
II	TAM 1428	நாட்டுப்புறவியல்	5	4	60
III	TAM 2429	பிறமொழி இலக்கியம்	5	4	60
IV	TAM 2430	சித்தர் நெறி	5	4	60

PART IV Non – Major Electives

SEM	COURSE CODE	COURSE TITLE	Hrs\Wk	Cr.	MARKS
I	TAM 1211	தமிழிலக்கிய வரலாறு	3	2	30
I	TAM 1213	அடிப்படைத் தமிழ் - I	3	2	30
I	TAM 1215	சிறப்புத் தமிழ் - I	3	2	30
II	TAM 1212	தமிழக வரலாறும் பண்பாடும்	3	2	30
II	TAM 1214	அடிப்படைத் தமிழ் - II	3	2	30
II	TAM 1216	சிறப்புத் தமிழ் - II	3	2	30

PART IV Life Skill Courses

SEM	COURSE CODE	COURSE TITLE	Hrs\Wk	Cr.	MARKS
I	TAM 1209	தொடர்பியல்	3	2	30
II	TAM 1210	திரைப்பட ரசனையும் குறும்படத் தயாரிப்பும்	3	2	30
V	TAM 3209	போட்டித் தேர்வில் தமிழ்	3	2	30
VI	TAM 3210	இலக்கியரசனையும் படைப்புக்கலையும்	3	2	30

தமிழ் 1201 **பொதுத்தமிழ் - I** **3Hrs./2Credits**

*** நோக்கம் :**

⟹ தற்காலத் தமிழிலக்கியப் பரப்பில் நவீன இலக்கிய வடிவங்களான புதுக்கவிதை, நாவல், சிறுகதை ஆகியனவற்றை அறிமுகப்படுத்தி இரசனை முறையிலும், திறனாய்ந்து நோக்கும் முறையிலும் மாணவர்களை அணுகச் செய்தல் இப்பாடத்தின் நோக்கமாகும்.

பாடத்திட்டம்:

கூறு–1:இலக்கியம் வரையறை – நவீன இலக்கியத்தின் வரவு – தமிழிலக்கியப் பரப்பில் நவீன இலக்கியத்தின் இடம் - நவீன இலக்கியத்தைப் பயிலுவதன் நோக்கமும் பயன்பாடுகளும்.

கூறு–2:புதுக்கவிதை : விளக்கமும் விவரனைகளும் - புதுக்கவிதையின் தோற்றமும் வளர்ச்சி நிலைகளும் - ந.பிச்சமூர்த்தி தொடங்கி இக்காலம் வரை எழுந்துள்ள குறிப்பிடத் தகுந்த கவிதைப் பரம்பரையும் பாடுபொருட்களும்.

கூறு–3:புதுக்கவிதையின் புதுவரவுகள்: பிற புலங்களிலிருந்து தருவிக்கப்பட்டு, தற்காலத் தமிழ்ச் சூழலில் வேர்கொண்டுள்ள ஹைக்கூ, சென்ரியூ, லிமரிக்கூ கவிதை வடிவங்கள் - வரையறைகள்.

ஹைக்கூ - சொற்சுருக்கம், ஜென் சித்தாந்தப் பின்னணி, இயற்கையை நேசித்தலில் முதன்மை, இருண்மையும் நுண் பொருண்மையும், படிம உறைவு. சென்ரியூ: உயிர்களை நேசிப்பதில் முதன்மை, மானுடம் மீதான கவனக் குவிப்பும் மறைபொருட் தன்மையும், அங்கதம் வழிச் சுட்டியுரைத்தல், உத்திகளின் உள்ளுறைவு / லிமரிக்கூ : கலப்பின வடிவம், பகடித்துச் சுட்டும் தன்மை.

கூறு–4:நாவல் : தோற்றப் பின்னணி – காப்பிய மரபின் தேய்வும் நாவலின் வரவும் - நாவல் வடிவம் - வகைமைகள் - பாகுபாடுகள்.

கூறு–5:சிறுகதை: வடிவ இலக்கணம், - சிறிய கதை - சிறுகதை வேறுபாடுகள், தோற்றச் சூழல், உலக, இந்திய, தமிழக அளவில் குறிப்பிடத்தக்க சிறுகதைப் படைப்பாளர்களும் பிரதிகளும்

பாடப்பகுதிகள்

I.புதுக்கவிதைகள்:

1. ந.பிச்சமூர்த்தி	-	i.காதல், ii.காதல் ,
2. பிரமிள்	-	i.சொறிமுத்துச் சித்தர் ii.என்று, iii. என்றேன் என்கிறார். iv. என்றேன் என்றார், v.இண்டியன் ரைட்டர் பேட்டி
3. சுந்தர ராமசாமி	-	1. மந்த்ரம் 2. கதவைத் திற
4. இன்குலாப்	-	கண்மணி இராஜம்
5. மீரா	-	கனவுகள்+ கற்பனைகள்= காகிதங்கள்
6. மு.மேத்தா	-	தேசப் பிதாவுக்கு ஒரு–தெருப்பாடகனின் அஞ்சலி
7. கங்கை கொண்டான்	-	சில நைலான் கனவுகள் எரிகின்றன
8. i. சங்கரி	-	அவர்கள் பார்வையில்
ii. தாமரை	-	i. தொலைந்து போனேன், ii. ஒரு கதவும் கொஞ்சம் கள்ளிப்பாலும்
iii. இளம்பிறை	-	i.சிதறல், ii.சில்க் சுமிதா என்கிற விஜயலட்சுமிக்காக, iii. அறுவடைக்காலம்
9. அன்பாதவன்	-	i.மூன்று சதவீத எச்சில் ii. மாட்டுக்கறி
10. சேரன்	-	எல்லாவற்றையும் மறந்து விடலாம்

11. சமயவேல் - i.பரிணாமப் பயன்பாடுகள்
ii.ஏதேனும் ஒரு அழகிய கனவு
iii.எங்களுக்கு ஒரு அறை இருந்தது.
12. மனுஷ்ய புத்திரன் - தோழர் ஹிட்லர்

II. குறுநாவல்:
ஜெயமோகன் - யானை டாக்டர்

III. சிறுகதைகள் :
1. புதுமைப்பித்தன் - மோட்சம்
2. கு.ப.ரா. - விடியுமா?
3. கி.ரா. - மின்னல்
4. ஜெயகாந்தன் - சுமைதாங்கி
5. பிரபஞ்சன் - கருணையினால் தான்
6. அசோகமித்திரன் - மழை
7. சுஜாதா - நகரம்
8. ச.தமிழ்ச்செல்வன் - அசோகவனம்
9. பெருமாள் முருகன் - சந்தனச் சோப்பு
10. உமா மகேஸ்வரி - நெடி

IV. நவீன இலக்கிய வரலாற்றுக் குறிப்புகள் மற்றும் தேர்ந்தெடுத்த கவிதைகளின் தொகுப்புகள் அடங்கிய தமிழ்த்துறை வெளியீட்டு நூல்.

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* நோக்கம் : சங்க காலம் தொடங்கி மறுமலர்ச்சிக் காலம் வரை எழுந்துள்ள கவிதைகளை அவையெழுந்த சூழல்களோடு இணைத்து சொல், பொருள், ஓசை, கற்பனை, உணர்வு ஆகிய பல உறுப்புகளின் கூட்டாகிய கவிதையை விளங்கச் செய்தலும், உள்ளுறை, இறைச்சி, குறிப்பு, உவமை முதலான அணிகளின் வழி கவிதையை நயக்கச் செய்தலும், படைப்பாளனின் கவித்துவம் உயிராற்றலோடு வெளிப்படும் இடங்களை இனங்காணச் செய்தலும் இப்பாடத்தின் பிற நோக்கங்களாகும்.

கூறு–1. சங்கக் கவிதை: தொல்காப்பியம் சுட்டும் திணைப் பாடுபாடு – திணை அடிப்படையில் பாடல்கள் தொகுக்கப் பெற்ற விவரம் – அகத்துறை, புறத்துறை ஆகியவற்றின் முக்கியத்துவம் – இயற்கையும், அழகும், மனித வாழ்வும் இயைந்திருக்கும் சங்கப் பாடல்களின் எளிமைத் தன்மை – காலங் கடந்து நிற்றலுக்கான காரணம் - செவ்வியல் பண்பு - இவற்றை முதன்மைப் படுத்துதல். தேர்வு செய்யப்பட்ட பாடல்கள் வழி இக் கூறு விளக்கம் பெறும்.
(குறுந்தொகை – 10 பாடல்கள் (திணைக்கு–2 பாடல்கள்), கலித்தொகை –3 பாடல்கள், புறநானூறு 10 பாடல்கள், முல்லைப்பாட்டு 1–25 அடிகள்).

கூறு–2. அறநெறிக்காலக் கவிதை : சங்கப் பாடல்களில் மென்மையாக இடம்பெற்ற அறம், சங்க மருவிய காலகட்டத்திலெழுந்த பாடல்களில் அழுத்தமாக முன்மொழியப்பட்ட பாங்கினை எடுத்துக்காட்டுதல் - தனி மனிதன், சமூகம் சார்ந்து அறங்கள் நேர்த்தியாக மொழியப் பெற்றதைச் சுட்டுதல் - தேர்வு செய்யப்பட்ட பாடல்கள் வழி இக்கூறு விளக்கப்பெறும். குறள் (3 அதிகாரம் - வாய்மை, இன்னா செய்யாமை, புலவி நுணுக்கம்), நாலடியார் (இளமை நிலையாமை, செல்வம் நிலையாமை) ஆசாரக்கோவை 15 பாடல்கள்).

கூறு–3. இறைநெறிக் கவிதை: பக்தி இயக்கம் தோன்றுவதற்கான சூழலைக் கூறுதல் – முந்தைய காலகட்டங்களில் சிறப்பிடம் பெற்றிருந்த வீரம், காதல், அறம் முதலான பாடுபொருட்கள் புதிய பொருண்மையைப் பக்தி இயக்க காலகட்டத்தில் பெறுவதைச் சுட்டிக் காட்டல் - தேர்வு செய்யப்பட்ட பாடல்கள் வழி இக்கூறு விளக்கப்பெறும். (ஆண்டாள் - நாச்சியார் திருமொழி மாணிக்கவாசகர் - திருக்கோத்தும்பி, நாவுக்கரசர் - 10 பாடல்கள் (மாசில் ... நாமார்க்கும்...).
கதைநெறிக் காலக்கவிதை: சிறு உணர்வை/ நிகழ்வொன்றைப் பாடிய சூழல் மறைந்து ஒரு கதையைத் தொடர்நிலைச் செய்யுளாகப் பாட வேண்டிய சூழல் எழுந்தமையைச் சுட்டல் - ஐம்பெருங்காப்பியம் - கம்பராமாயணம் - பெரியபுராணம், நளவெண்பா, தேம்பாவணி, சீறாப்புராணம், இரட்சண்ய யாத்திரீகம் முதலானவற்றை அறிமுகப்படுத்துதல் - கவிதையின் அழகியல் தன்மை – புலவனின் சமத்காரம் - கருத்துக்களை நயமுற எடுத்துரைக்கும் பாங்கு முதலானவற்றைத் தேர்வு செய்யப்பட்ட பாடல்கள் வழி எடுத்துக் காட்டுதல். (கம்பன் - 15 பாடல்கள், இரட்சண்ய யாத்ரீகம் – 10 பாடல்கள்.

கூறு–4. மீயியல்பு நெறிக் காலக் கவிதை:
தொல்காப்பியத்தில் சுட்டப் பெற்றுள்ள சில உறுப்புகள் காலகட்டத்திற்கேற்பப் புதிய கோலம் பூண்டதை எடுத்துக் கூறுதல் – சிற்றிலக்கியங்களின் வகைகளை அறிமுகம் செய்தல் - உயர்வு நவிற்சி என்ற கூறு இக்காலகட்டத்திய பாடல்களில் முதன்மையிடம் பெற்றதைத் தெளிவுபடுத்துதல் - தேர்வு செய்யப்பட்ட பாடல்களின் வழி இக்கூறு விளக்கம் பெறும். (கலிங்கத்துப் பரணி – பேய்களைப் பாடியது 15 பாடல்கள், குற்றாலக் குறவஞ்சி – நாட்டு வளம்).

கூறு–5. மறுமலர்ச்சிநெறிக் காலக் கவிதை: ஐரோப்பியர் வருகையினால் சமூகத்தில் ஏற்பட்ட மாற்றம் – தனி மனித வாழ்க்கையைப் பாதித்தல் – அடிமை நாடாகப் பாரதம் மாறிய சூழலில் பாரதி முதலான கவிஞர்கள் அரசியல், விடுதலை, சமூக

விடுதலை, தனி மனித விடுதலை முதலான பாடுபொருட்களை மையமிட்டுக் கவிதை வடித்ததைக் குறிப்பிடல் - பாரதி பரம்பரை – பாரதிதாசன் பரம்பரை அறிமுகம் - புதுக்கவிதை வரவு – தனி மனித மன உளைச்சல், வேலையின்மை, முதிர்கன்னியர் பிரச்சினை, காதல், கல்வி, சாதி வர்க்க முரண்பாடு முதலானவை கவிதையின் பாடு பொருள்களாக அமைந்ததைத் தேர்ந்தெடுத்த பாடல்கள் வழி சுட்டிக் காட்டுதல்.

(பாரதி : பாரத தேச மென்று ..., நெஞ்சு ..., விடுதலை i)கண்ணன் பாட்டு - (iii) பாதிதாசன் : அழகின் சிரிப்பு – குன்றம், (i) சித்திரச் சோலைகளே ... (i), தமிழின் இனிமை (i), புதுக் கவிதைகள் : மு.மேத்தா, அப்துல் ரகுமான், நா.காமராசன் (10)).

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17. நாஞ்சில்நாடன், சிற்றிலக்கியங்கள், தமிழினி, 2014.

TAM 1421 **மொழி அடிப்படை** **4Hrs/4 Credits**

நோக்கம்: **தமிழ் மொழியின் அமைப்பைப் புரிந்துகொண்டு பிழையின்றிப் பேசவும் எழுதவும் பயிற்றுவித்து அன்றாட நடைமுறை வாழ்வில் மொழியை சிறப்பாக கையாளும் திறனைப் பெறச்செய்தல்**

கூறு-1: வாக்கியங்கள் - வகைகள் - பொருள் அடிப்படையிலான வாக்கிய வகைகள்: செய்தி வாக்கியம் - ஏவல் - வியங்கோள் - வினாவாக்கியம் - வியப்புவாக்கியம் - உடன்பாடு – எதிர்மறை வாக்கியம். அமைப்பு அடிப்படையிலான வாக்கிய வகைகள்:தொகைகளும் தொடர்களும் - அவற்றின் அமைப்பும் வகைகளும் பயன்பாடும், தனி வாக்கியம் - கூட்டு வாக்கியம் கலவை வாக்கியம் செய்வினை வாக்கியம் - செயப்பாட்டுவினை வாக்கியம் போன்றவை.

கூறு-2: பெயர் - இலக்கணம் வகைகள் - பெயரடை – வகைகள் - வேற்றுமைகளின் பயன்பாடு.

கூறு-3: வினை - இலக்கணம் - வகைகள் - ஏவல் - வியங்கோள் - முற்று எச்சம் - பெயரெச்சம் - வினையெச்சம் - வினையடை – வகைகள் - துணை வினைகள் பயன்பாடும் பொருள் வேறுபாடும்.

கூறு-4: எழுத்து வேறுபாடும் பொருள் உணர்த்தலும் : ல-ள, ல-ழ,ழ,ன,ண ன-ந, ற-ர வேறுபாடும்
பொருள் வேறுபாடும் - ஒற்றுமிகுதல், மிகாமை அதனால் பொருள் வேறுபடுதல்.

கூறு-5: தமிழில் பிழையின்றிக் கட்டுரை – கடிதம் - விண்ணப்பம் எழுதுவதற்குப் பயிற்றுவித்தல்.

துணை நூல்

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7.தமிழ் நடைக் கையெடு, மொழி வெளியீடு, இந்திய மொழிகள் நடுவண் நிறுவனம் , 2001.
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TAM 1425 தமிழ் இலக்கிய வரலாறு I 4Hrs/4 Credits

நோக்கம் : **தமிழிலக்கிய மாணவர்களுக்காக வடிவமைக்கப்பட்டுள்ள இப்பாடம் தமிழிலக்கிய வரலாற்றைக் காலம் மற்றும் இலக்கிய வகைமைகள் அடிப்படையில் புரிந்துகொள்ளச் செய்யும். நீண்ட தமிழிலக்கியப் பரப்பின் செம்பாதியை இப்பாடம் உள்ளடக்கும்.**

பாடத்திட்டம்

1. தமிழ்மொழி வரலாறும் இலக்கியப் போக்கின் தொடர்ச்சியும்: தமிழ்மொழியின் தொன்மை – தொல்காப்பியம் - காலகட்ட அடிப்படையிலான தமிழிலக்கிய வகைமை.
2. சங்க இலக்கியங்கள் : எட்டுத் தொகை – பத்துப்பாட்டு – அகம் புறம் போன்ற உள்ளடக்கச் செய்திகள் — சங்கம் ஏற்பு, மறுப்பு பற்றிய செய்திகள் - வேந்தர்கள் - குறுநில மன்னர்கள் - வள்ளல்கள் செவ்விலக்கியத் தகுதிகள்.
3. சங்க மருவிய இலக்கியங்கள்: பதினெண்கீழ்க்கணக்கு நூல்கள் - அறம் முதன்மை பெறும் பாங்கு, களப்பிரர் காலம், சமண பௌத்த சமயங்களின் தாக்கம் - திருக்குறள், நாலடியார், பழமொழி போன்ற நூல்களின் சிறப்பு - இம்மூன்று தவிர்த்த பிற சங்கம் மருவிய நூல்கள்.
4. தமிழில் காப்பியங்கள்: சங்கமருவிய காலத்தின் தொடர்ச்சியில் பிறந்த காப்பியங்கள் - ஐம்பெரும் காப்பியங்கள் - ஐஞ்சிறு காப்பியங்கள் - சிலப்பதிகாரம், மணிமேகலை, சீவசிந்தாமணி – பிற – கருத்துகளிலும் வடிவங்களிலும் ஏற்பட்ட மாற்றங்கள் - இதன் தொடர்ச்சியாக அடுத்தடுத்த நூற்றாண்டுகளில் பிறந்த கம்பராமாயாணம் பெரியபுராணம் போன்றவை குறித்த குறிப்புகள்.
5. பக்தி இலக்கியங்கள் : பன்னிரு திருமுறைகள் - நாலாயிர திவ்வியப் பிரபந்தம் - தேவார மூவர், மாணிக்கவாசகர் - பல்லவர்கள் ஆட்சி - பன்னிரு ஆழ்வார்கள் - பக்தி பெறும் முதன்மை - இசை கோயில் போன்றவற்றின் மீட்சி.

பாடநூல்

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பார்வை நூல்கள்

1. மு.வரதராசானார் - தமிழிலக்கிய வரலாறு, சாகித்ய அகாடமி வெளியீடு
2. கா.கோ.வேங்கடராமன்- தமிழிலக்கிய வரலாறு
3. மது.ச.விமலானந்தம்- தமிழிலக்கிய வரலாறு

4. ஆ.வேலுப்பிள்ளை - தமிழிலக்கியத்தில் காலமும் கருத்தும், குமரன் பதிப்பகம், கொழும்பு – சென்னை
5. க.கைலாசபதி - பண்டைத் தமிழர் வாழ்வும் வழிபாடும் குமரன் பதிப்பகம், கொழும்பு – சென்னை
6. சு.வித்தியானந்தன் - தமிழர் சால்பு

TAM 1209 **தொடர்பியல்** **3Hrs/2 Credits**

நோக்கம்:தொடர்பியல் கலையின் வகைகளைக் கூறி குறிப்பாக உடல்மொழி, பேச்சுமொழி, நடத்தை முறைகளின் தன்மைகள் மற்றும் முக்கியத்துவத்தைக் கற்பித்தலின் மூலம் மாணவர்களின் ஆளுமையை மேம்படுத்துவது இப்பாடத்தின் நோக்கமாகும்.

கூறு 1. தொடர்பியல் எனும் கலை – தனிமனிதர்கிடையிலான தொடர்பு - குழுத் தொடர்பு – வெகுசனத் தொடர்பு - வெகுசன ஊடகங்கள்: வகைகள் தன்மைகள் (அச்சு ஊடகங்கள் :. மின்னியல் ஊடகங்கள்)

கூறு 2. ஊடக விழிப்புணர்வின் அவசியம் – (ஊடக அரசியல் – விளம்பரங்களின் தாக்கங்கள் – ஊடகங்களும் இளையோர் பண்பாடும்)

கூறு 3. உடல் மொழியின் தன்மைகள் (இயல்பானவை(inborn) / கிரகித்துக் கொள்பவை(inherited) / கற்றுக் கொள்பவை(learned)) உடல்மொழியும் பண்பாடும் - பார்த்தல் வழி தொடர்பு - பாவனைகளும் பாவங்களும் – கைகளும் கால்களும் -நிற்றல் நிலைகளும் நகர்தலும் அமர்தலும்

கூறு 4. பேச்சுமொழியின் தன்மைகள் – கையாளும் வழிகள் : (குரல் / சத்தம் / சுருதி / வேகம் / தொனி / அழுத்தம் / தெளிவு /நிறுத்தம் / நிறுத்தக் குறிகள் / உச்சரிப்பு

கூறு 5. உடையும் தோற்றமும் — மொழியும் மொழியற்ற தொடர்பும் – கேட்டல் மற்றும் கவனித்தல் எனும் கலை – நடத்தை முறைகளும் புழங்கு வெளியும் – அந்தரங்க வெளியும் சமூக வெளியும் – தொடர்பியல் கல்வியின் நடைமுறைப் பயன்பாடுகள்

பரிந்துரை நூல்கள்

1. தொடர்பியல் சமூகம் வாழ்க்கை: க.பூரணச்சந்திரன்: 2011: அடையாளம் பதிப்பகம்
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TAM 1213 **அடிப்படைத் தமிழ் - I** **3Hrs/2 Credits**

நோக்கம்: தமிழ்மொழியை முதன்மைப் பாடமாகப் பயிலாத மாணவர்களுக்குத் தமிழின் நெடுங்கணக்கு, பெயர், பதிலிப்பெயர், எண்கள் மற்றும் வினாச் சொற்கள் ஆகியவற்றைப் பயிற்றுவித்து, எழுதச் செய்தல் இப்பாடத்தின் நோக்கமாகும்.

கூறு 1: தமிழ் நெடுங்கணக்கு – வடிவங்கள் – ஒலிப்பு முறைகள் – சர்வதேச ஒலிப்பு முறைகளின் வழியாகப் பயிற்றுவித்தல்.

கூறு 2: பெயர்ச்சொற்கள் - ஆண்பால் பெயர்ச்சொற்கள் - பெண்பால் பெயர்ச்சொற்கள் - ஒன்றன்பால் பெயர்ச்சொற்கள் - பலர்பால் பெயர்ச்சொற்கள்- பலவின்பால் பெயர்ச்சொற்கள்.

கூறு 3: பதிலிப் பெயர்கள் - ஆண்பால் பதிலிப்பெயர்கள்- பெண்பால் பதிலிப்பெயர்கள் - பலர்பால் பதிலிப்பெயர்கள் - ஒன்றன்பால் பதிலிப் பெயர்கள் - பலவின்பால் பதிலிப் பெயர்கள்.

கூறு 4:எண்கள் 1-50 வரை தமிழில் எழுதிப் பழக்குதல்.

கூறு 5:வினாச் சொற்கள் - தமிழில் வழங்கி வரும் மரபான வினாச் சொற்களைப் பயிற்றுவித்தல்.

பாட நூல்: தமிழ்த்துறை வெளியீடு.

TAM 1225 சிறப்புத் தமிழ் - I 3Hrs/2 Credits

நவீனத் தமிழிலக்கிய வகைமைகளான கவிதைகள், சிறுகதைகள், கட்டுரைகள் ஆகியனவற்றை அறிமுகம் செய்து அவற்றின் இலக்கியச் சுவைகளை உணரச்செய்தல் இப்பாடத்தின் நோக்கமாகும்.

கூறு1: பாரதி – பாரதிதாசன் - மு.மேத்தா - இன்குலாப் - அப்துல் ரகுமான்.
கூறு2: கலாப்பிரியா – மனுஷியபுத்திரன் - சல்மா – சுகிர்தராணி - இசை.
கூறு3: புதுமைப்பித்தன் - காலனும் கிழவியும், தி.ஜானகிராமன் / பரதேசி வந்தான், கி.ராஜ நாராயணன்/ மின்னல், ஜெயந்தன்/குணாலெட்சுமி.
கூறு4: பூமணி – நொறுங்கல், சோ.தர்மன் - அஹிம்சை,கந்தர்வன் - சாசனம், கண்மணி குணசேரன் - சுருக்கு
கூறு5: நான்கு கட்டுரைகள், தொ.பரமசிவன், ஜெயமோகன், ஷாஜி,நாஞ்சில்நாதன்

பாடநூல்: தமிழ்த்துறை வெளியீடு

TAM 1212 தமிழக வரலாறும் பண்பாடும் **3Hr/Cr2**

நோக்கம்: **தமிழக வரலாற்றையும் அதன் பண்பாட்டுக் கூறுகளையும் இலக்கியச் சான்றுகள் மற்றும் வரலாற்றுச் சான்றுகளின் அடிப்படையில் கற்கச் செய்தல் இப்பாடத்திட்டத்தின் நோக்கமாகும்.**

பாடத்திட்டம்:

கூறு-1: தமிழக வரலாற்றை அறிய உதவும் அடிப்படை வரலாற்றுச் சான்றுகள், தமிழகத்தின் நிலவியல் வரலாற்றுடன் கொண்ட தொடர்பு, வரலாற்றுக்கு முற்பட்ட காலம், தமிழகத்தின் நில எல்லை, குமரிக்கண்டம், கடற்கோள்.

கூறு-2: சங்கம் இருந்தமைக்கான சான்றுகள், சங்ககாலத் தமிழர் வாழ்வியல் (சமுதாயம், சமயம், போர், உணவு, தொழில், சடங்கு, பண்பாடு) தமிழகம் அயல்நாட்டுடன் கொண்ட வாணிக தொடர்புகள், தமிழக மூவேந்தர்கள், குறுநில மன்னர்கள், கடையேழு வள்ளல்கள்.

கூறு-3: களப்பிரர் வருகை, பல்லவ பேரரசுகளின் தோற்றம், பல்லவர் சாளுக்கியர் போர், பல்லவர் ஆட்சிமுறை, சமயம், கட்டிடக் கலை, பிற்காலச் சோழப் பேரரசு, ஊராட்சி, அரசியல், சமயம், கோவில் பணி, சோழர் வீழ்ச்சி.

கூறு-4: பிற்காலப் பாண்டியர்களின் எழுச்சி, தென்னகத்தில் இஸ்லாமிய ஆதிக்கம், பாண்டியர் வீழ்ச்சி, நாயக்கர், விஜய நகர பேரரசு தோற்றம், நாயக்க மன்னர்கள்,பாளையபட்டு ஆட்சி முறை, நாயக்கர் கால சமயம், கலைகள், தஞ்சை மராட்டியர்.

கூறு-5: தமிழகத்தில் ஐரோப்பியர் வருகை கிறிஸ்தவ மத பரவல் ஆங்கிலேயே ஆட்சியின் விளைவுகள், விடுதலைப் போரில் தமிழகத்தின் பங்கு, விடுதலைக்குப் பின் தமிழகம் 1969 வரை.

பார்வை நூல்கள்

1. முனைவர்.க.வெங்கடேசன், முற்காலத் தமிழ்நாட்டு வரலாறு, வி.சி.பப்ளிகேஷன்ஸ், இராஜபாளையம் -117.
2. ஆ.இராமகிருட்டிணன், தமிழக வரலாறும் தமிழர் பண்பாடும், சர்வோதய இலக்கிய பண்ணை, மதுரை -1.
3. மா.இராஜமாணிக்கனார், தமிழக வரலாறும் பண்பாடும், NCBH வெளியீடு, சென்னை, 98.
4. செவல் குளம் ஆச்சா, மதுரை நாயக்க மன்னர்கள், சுரா பதிப்பகம், சென்னை.
5. முனைவர்.குரு ஜெகந்நாதன், வெற்றித் திருநகர் (விஜய நகர சாம்ராஜ்ஜிய வரலாறு), மன்னர் திருமலை நாயக்கர் கல்லூரி வெளியீடு, மதுரை.

TAM 1214 அடிப்படைத் தமிழ் - II 3Hr/Cr2

நோக்கம்: **தமிழை முதன்மைப்பாடமாகப் பயிலாத மாணவர்களுக்குத் தமிழ் மொழியின் அடிப்படைகளான வினை வடிவங்கள், வேற்றுமைத் தொகைகள், எண்கள், தமிழ்நாட்கள், மாதங்கள் ஆகியனவற்றை விளக்கி சிறுவாக்கியங்களை அறிமுகம் செய்தல் இப்பாடத்தின் நோக்கமாகும்.**

கூறு 1: வினைச்சொற்கள் - நிகழ்கால இடைநிலைகள் - எதிர்கால இடைநிலைகள் - இறந்தகால இடைநிலைகள் - சந்தி – சாரியை.

கூறு 2: வேற்றுமைகள் விளக்கம் – உருபுகள் - எழுவாய் வேற்றுமை – கருவிப்பொருள் வேற்றுமை – கொடைப் பொருள் வேற்றுமை, நீங்கல் பொருள் வேற்றுமை – உடமைப் பொருள் வேற்றுமை - இடப்பொருள் வேற்றுமை – விளி வேற்றுமை – செயபடுபொருள் வேற்றுமை.

கூறு 3: எண்கள் - 51 – 100. தமிழில் எழுதப்பழக்குதல்

கூறு 4: தமிழ் நாட்கள் - மாதங்கள் - பெயர்களை அறிமுகப்படுத்துதலும் எழுதப்பழக்குதலும்

கூறு 5: சிறிய வாக்கியங்களை அறிமுகப்படுத்திப் பிழையின்றி எழுதப்பழக்குதல் - தமிழ்ப்பழமொழிகளை அறிமுகப்படுத்துதல்.

பாட நூல்: தமிழ்த்துறை வெளியீடு.

TAM 1226 சிறப்புத் தமிழ்-II 3Hr/Cr2

நோக்கம்:**தமிழில் காலந்தோறும் எழுந்த இலக்கியங்களைப் பொருண்மை நோக்கில் விளக்கி, அந்தந்தக்கால இலக்கியங்களின் பகுதிகளைக் கற்கச் செய்வதன் மூலமாக மரபிலக்கிய அறிமுகத்தைப் பெறச்செய்தல் இப்பாடத்தின் நோக்கமாகும்.**

கூறு1: சங்க காலம், சங்க மருவிய காலப் பின்னணி விளக்குதல் (குறுந்தொகை, 5 பாடல்கள், புறுநானூறு….. திருக்குறள் - மூன்று அதிகாரங்கள்)

கூறு2: காப்பிய இலக்கியம் வகை, பின்னணியை விளக்குதல். மதுரைக் காண்டம், வழக்குரைக் கதை சிறுபகுதி

கூறு3: பக்தி இலக்கியம் அறிமுகம், நாயன்மார்கள், ஆழ்வார்கள் அறிமுகம் நிலையில் விளக்கு காரைக்கால் அம்மையார் 5-பாடல் ஆண்டாள் 5 பாடல்.

கூறு4: சிற்றிலக்கியம் தோற்றம் பின்னணி, உலா இலக்கியத்தின் அமைப்பு, மூவருலா மூன்று அரசர்களைப் பற்றி 15 பாடல்கள்.

கூறு5: சித்தர் இலக்கியம், பின்னணி சிவவாக்கியர், பாம்பாட்டிச்சித்தர்.

பாடநூல்: தமிழ்த்துறை வெளியீடு

TAM 1427 தொல்லியலும் தமிழகமும் 5Hr/Cr4

நோக்கம்:**தொல்லியல் ஆய்வுகளின் அடிப்படைகளை அறியச் செய்து, தமிழகத் தொல்லியல் தரவுகளை இலக்கியத்தோடு ஒப்பிட்டு நோக்கச் செய்தல் இப்பாடத்தின் நோக்கமாகும். மாணவர்களைத் தொல்லியல் களங்களைப் பார்வையிடச் செய்தலும் கல்வட்டுப் படியெடுக்கப் பயிற்சி பெறச்செய்தலும் இப்பாடத்துள் அடங்கும்.**

கூறு 1: தொல்லியல் பொருள் விளக்கம், தொல்லியலும் பிற துறைகளும், 19ஆம் நூற்றாண்டின் புகழ்பெற்ற இந்தியத் தொல்லியல் துறை முன்னோடிகள், அகழ்வாய்வு முறைகள், அகழ்வாய்விற்குப் பயன்படும் கருவிகள், பொருட்கள், அகழ்வாய்வு நிபுணர் கடமைகள், தொல் பொருளியல் காலகணிப்பு முறைகள்.

கூறு 2: பெருங்கற்காலம், நடுகற்கள், முதுமக்கள் தாழிகள், தமிழ் இலக்கியத்தில் பெருங்கற்கால எச்சங்கள், மட்பாண்டங்கள், பாறை ஓவியங்கள்.

கூறு 3: வரலாற்றுக் காலம் -கொற்கை, ஆதிச்ச நல்லூர், அழகன்குளம், கரூர், உறையூர், காவிரிப்பூம்பட்டினம், கொடுமணல் ஆகிய ஊர்களில் நடைபெற்ற அகழ்வாய்வுகள்,

கூறு 4: சிற்பக்கலை (சைவம் வைணவம், சமணம், பௌத்தம்) முத்திரை, கோலங்கள், ஆயுதங்கள், தமிழக கோயிற்கலை.

கூறு 5: தமிழ்ப்பிராமி கல்வெட்டுகள், செப்பேடுகள் அறிமுகம் (சின்னமனூர், லெய்டன், வேலஞ்சேரி, ஆனைமங்கலம்) நாணயங்கள் (பழந்தமிழரசர்-சேர, சோழர் பாண்டியர்) ஓலைச்சுவடிகள், அருங்காட்சிவியல், ஆவணங்கள், வெளிநாட்டார் பயணக் குறிப்புகள்.

பார்வை நூல்கள்

1. முனைவர் தி.மனோன்மணி, முனைவர் த.செல்வநாயகி, தொல்லியல், NCBH வெளியீடு, சென்னை-9.
2. பொ.இராசேந்திரன் , சொ.சாந்தலிங்கம் , கோயிற்கலை, NCBH வெளியீடு, சென்னை -98
3. K.V.ராமன், தொல்லியல் ஆய்வுகள் , NCBH வெளியீடு,சென்னை -98
4. கு.ராஜவேலு, ராமமூர்த்தி - தமிழ்நாட்டு தொல்லியல் அகழ்வாய்வுகள் , சென்னை -117
5. கா.ராஜன் , தொல்லியல் நோக்கில் சங்ககாலம், உலகத் தமிழராய்ச்சி நிறுவனம், சென்னை 113
6. நீலகண்ட சாஸ்திரி - வெளிநாட்டார் பயணக் குறிப்புகள் -தமிழக அரசு வெளியீடு, சென்னை
7. ஆனந்தரங்கம் பிள்ளை நாட்குறிப்பு - சாகித்ய அகடாமி வெளியீடு,
8. செப்பேடுகள் - தமிழகத் தொல்லியத்துறை வெளியீடு.
9. இராசு பவுன் துரை – தமிழக பாறை ஓவியங்கள்- தமிழகத் தொல்லியத்துறை வெளியீடு,
10. வை.சுந்தரேச வாண்டையார் , முப்பது கல்வெட்டுகள், பழனியப்பா பிரதர்ஸ் ,சென்னை -14
11. நடன காசிநாதன் , தமிழர் காசு இயல் ,உலகத் தமிழராய்ச்சி நிறுவனம், சென்னை 600 113
12. முனைவர்.அ.இராமசாமி, தொன்மத் தமிழர் நாகரீக வரலாறு, NCBH வெளியீடு, சென்னை 98
13. www.tnarch.gov.in
14. asi.nic.in › Excavations
15. https://tn**archaeology**.wordpress.com/
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TAM 1202 பொதுத்தமிழ்- **II** **Hr&3/Cr2/ 60 marks**

நோக்கம்

20ஆம் நூற்றாண்டில் எழுதப்பட்ட மரபுக்கவிதைகளை இரசனை முறையில் அணுகச் செய்தலும் பயிற்சியின் மூலம் மாணவர்களின் எழுத்துத் திறனை மேம்படுத்துவதும் இப்பாடத்தின் நோக்கமாகும். பொதுத்தமிழ் 1இன் தொடர்ச்சியாக இது அமையும்.

கூறு:1 மரபு இலக்கியம் வரையறை, தமிழிலக்கியப் பரப்பில் மரபு இலக்கியத்தின் இடம், மரபு இலக்கியத்தைப் பயிலுவதன் நோக்கம், இராமலிங்க அடிகள் -திருவருட்பா (5ஆம்திருமுறை அன்பு மாலை தெரிவு செய்யப்பட்டவை), தாயுமானவர் (பைங்கிளிக்கண்ணி தெரிவு செய்யப்பட்ட அடிகள்), இறைவனிடம் கையேந்துங்கள்

கூறு:2 பாரதியார் - 1.பாரத தேசம்- வெள்ளி பனிமலை மீது, 2.செந்தமிழ் நாடென்னும் போதினிலே, 3.புதிய கோணங்கி, 4.அச்சமில்லை அச்சமில்லை

பாரதிதாசன்- 1.தமிழுக்கு அமுதென்று பேர்-இன்பத்தமிழ், 2.தொழிலாளர் விண்ணப்பம் - சமத்துவம் , 3.புத்தக சாலை, 4.கொட்டு முரசே
கவிமணி தேசிக விநாயகம் பிள்ளை- 1.கோவில் வழிபாடு, 2.பெண்களின் உரிமைகள் 3.பிஜித் தீவுத் தமிழருக்கு 4.ஆசிய ஜோதி -புத்தர் மகனிழுந்த தாயிடம் கூறுவன

கூறு.3 நாமக்கல் கவிஞர் பாடல்கள் 1.இளைஞரின் சபதம் 2.தீண்டாமை ஒழிக 3.தமிழா மறக்காதே 4. சுதந்தரச் சபதம், சுடர்மணி – மலைப்பொழிவு

கூறு.4 நாட்டுப்புற பாடல்கள் (1.தாலாட்டு தாயின் கனவுகள் (ந.வா) 2.புன் செய் உழவு ப.429 (ந.வா)3.பஞ்சமும் மழையும் (ப.68) 4.ஆளுக்கோரு தேசமானோம். (ப.51)) 5.ஓப்பாரி

கூறு5 மொழிப் பயற்சி: அடிப்படைத் தமிழ் இலக்கணம், (பெயர் சொல் வினைச் சொல்), வாக்கிய வகை, வாக்கிய அமைப்பில் அறிய வேண்டுவன, கடிதம் எழுதுதல், கட்டுரை எழுதுதல், பிழை நீக்கல், பிழை திருத்தம்.

பாடநூல்: தமிழ்த்துறை வெளியீடு

தமிழ் 1422 இக்காலக் கவிதை 4Hrs/4Credits

*** நோக்கம் :**

பாரதி தொடங்கி ஒரு நூற்றாண்டுத் தமிழ்க் கவிதைகளை அறிமுகப்படுத்துவதும் கால வரிசையில் அல்லாத உருவம், உத்திகள், கருத்தியல் பின்புலத்தில் சமகாலம் வரையிலுமாக உள்ள தமிழ்ப் புதுக்கவிதையுலகின் பல்வேறு போக்குகளை அறிமுகப் படுத்துவதும் இப்பாடத்திட்டத்தின் நோக்கங்களாகும்.

*** பாடத்திட்டம்:**

கூறு –1. தற்காலக் கவிதையின் முன்னோடியாக பாரதி அமையும் விதம் - செய்யுளிலிருந்து கவிதையின் பரிணாமம். பாரதியின் பன்முகத் தன்மையைப் பிரதிநிதித்துவப்படுத்தும் கவிதை வகைமைகள். சமூகத் தளங்களில் கவிதை இயங்கத் தொடங்குதல். தேசியம் - திராவிடம் - தமிழுணர்வு – சமூகத் தளைகளைச் சாடல் - பாரதிதாசன், கவிமணி, நாமக்கல் இராமலிங்கம் ஆகியோரின் கவிதைகள். மரபின் தொடர்ச்சியும் தேக்கமும் - வடிவப் பிடிவாதத்தில் கவிதை இரண்டாம் பட்சமாதல் - சுரதா, முடியரசன், வாணிதாசன், தணிகைச் செல்வன், தமிழ்ஒளி.

கூறு –2. புதுக்கவிதையின் தோற்றச் சூழல் - தமிழில் புதுக்கவிதை எழுந்ததற்கான பின்புலம் - புதுக்கவிதைக்கான வரையறை– ந.பிச்சமூர்த்தியின் தொடக்கால முயற்சிகள். புதுக்கவிதை மலர்ச்சி பெறல்: கு.ப.ரா., க.நா.சு. புதுக்கவிதையின் புதுப் பரிமாணங்கள் – எள்ளல் தன்மை இழையோடுதல்: புதுமைப்பித்தன், ஞானக்கூத்தன். அகத்தூண்டல் கவிதையின் மையமாதல்: தி.சோ.வேணுகோபாலன், சி.மணி. அந்தரங்கத்தன்மை : ஆத்மாநாம், நகுலன். உருவப் பரிசோதனை: சி.சு.செல்லப்பா, ஞானக்கூத்தன். படிமம், குறியீடு உள்ளிட்ட உத்தி ஆக்கங்கள்: தருமு சிவராமு, அபி, பசுவய்யா, எஸ்.வைத்தீஸ்வரன் ஆகியோரின் படைப்புகள்.

கூறு– 3. அகவுலகம் சார்ந்த கவிதைகளுக்கு மாற்றாக எழுந்த வானம்பாடிகள் இயக்கத்தின் தோற்றம் - இடதுசாரி சிந்தனைகளின் உரத்த குரல்கள் - சமூக விடுதலை கவிதைகளின் மையமாகுதல். மீரா, கங்கை கொண்டான், தமிழ் நாடன், சிற்பி, ஞானி, புவியரசு, மு.மேத்தா, இன்குலாப், நீலமணி முதலானோர்களின் கவிதைகள்.

கூறு–4. பிரச்சாரத் தொனியை மறுத்தல் - அன்றாட வாழ்வனுபவங்களைக் கவிதையாக்குதல் - சுய அனுபவம் சார்ந்த அக வெளிப்பாட்டை முதன்மைப்படுத்துதல் - எளிமை – நேரடித் தன்மை கொண்ட கவிதைகள் - கல்யாண்ஜி, விக்கிரமாதித்யன், தேவதேவன், தேவதச்சன், கலாப்ரியா, சமயவேல், வண்ணநிலவன். கிராமிய வாழ்வனுபங்களைக் கவிதையாக்குதல் – மண்ணையும்

மரபின் வேர்களையும் தேடும் போக்கு – கவிதையில் வட்டார மொழியை முன்வைத்தல் - சுயம்புலிங்கம், பழமலய், வித்யாசங்கர், தமிழச்சி.

கூறு –5. இருபதாம் நூற்றாண்டின் இறுதி, 21ஆம் நூற்றாண்டின் தொடக்க காலகட்டங்களில் தமிழிலக்கியத்தில் வேர்கொண்ட பலவேறு கோட்பாடுகள், சிந்தனைகள், போக்குகளின் தாக்கம்: அடையாள அரசியல் - தமிழ்த்தேசியம் - அறிவுமதி, காசி ஆனந்தன். பால்பாகுபாடு – நா.காமராசன், மு.சத்யா. உடல்மொழி – சுகிர்தாராணி, லீனா மணிமேகலை, குட்டி ரேவதி. பெண்ணியப் பகிர்வுகள் - வெண்ணிலா, சல்மா, இளம்பிரை, மாலதி மைத்ரி, உமாமகேஸ்வரி. தலித்தியச் சிந்தனை வீச்சுக்கள் - அன்பாதவன், ஆதவன் தீட்சண்யா, கே.ஏ.குணசேகரன், என்.டி.ராஜ்குமார். அகதிமை – சேரன், அனார், வில்வரத்தினம். ஊலகமய, நவகாலனியச் சூழல் – லட்சுமி மணிவண்ணன, லிபி ஆரண்யா- நவீன கவிதையும் இருண்மைப் படுத்தும் போக்கும் - பிரேம் - ரமேஷ், யவனிகா ஸ்ரீராம், புதிய வரவுகள் - ஹைக்கூ, சென்ரியூ, லிமெரிக்யூ கவிதை வடிவங்கள்

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25. www.thoguppugal.com
26. www.classical in tamil.in

தமிழ் 1524 புனைகதை **5 Hours/5Credit**

***நோக்கம் : உரைநடை மற்றும் புனைகதை இலக்கிய அடிப்படைத்தகவல்களைக் கூறி தீவிரவாசிப்பு, திறனாய்வு உள்ளிட்ட நுட்பங்களை அறிமுகம் செய்தலே இப்பாடத்தின் நோக்கமாகும். தமிழ்ப் புனைகதை இலக்கியத்தின் தோற்றப் பின்புலம், புனைகதைக் கூறுகள், திறனாய்வுப் போக்குகள் ஆகியனவற்றையும் தொட்டுச் செல்வதாகப் இப்பாடத்திட்டம் அமையும்.**

*பாடத்திட்டம்:

கூறு–1. ஐரோப்பியச் சூழலில் உரைநடை, புனைகதை இலக்கியத்தின் தோற்றம்; அவை பெருமளவில் வளர்ந்து பரவியதற்கான வரலாற்றுச் சூழல் (ஐரோப்பாவில் ஏற்பட்ட தொழிற் புரட்சி – நகர்மயமாக்கம் - நடுத்தர வர்க்கம் உருவாதல் – அச்சுத் தொழில் வளர்ச்சி - இதழ்களின் தோற்றம் - வாசிப்புப் பழக்கம் உருவாதல் - சிறுகதை, நாவல் இலக்கியத் தொடக்கம்).

கூறு–2. காலனியப் பின்னணியில் இந்தியாவிலும் தமிழிலும் உரைநடை இலக்கியத்தின் தோற்றம் - முன்னெடுத்துச் சென்றவர்கள் - 19ஆம் நூற்றாண்டு இதழ்கள், நூல்கள் - புனைகதையானது இலக்கியமாகப் பரிமாணம் பெறல்.

கூறு–3. இயந்திர நாகரிகம் - நவீனமயமாதல் –உலகப் போர்களுக்குப் பின் மேற்குலகில் ஏற்பட்ட சிந்தனை மாற்றங்கள் - அவற்றின் விளைவுகளால் புனைகதை இலக்கியத்தில் நேர்ந்த அமைப்பு மாற்றங்கள் - பரிசோதனை முயற்சிகள்.

கூறு–4. நாவல் வளர்ச்சியில் தேக்கநிலை – நாவல் மலர்ச்சியில் தேசிய இயக்கத்தின் பங்களிப்பு. சிறுகதை இலக்கியம்: தோற்றமும் பரவலும் - தேசிய இயக்கத்தின் குறிக்கத்தக்க புனைகதையாளர்களும் அவர்கள் படைப்புகளும் - தமிழில் பல்வேறு இயக்கப் பின்னணியில் உருப்பெற்ற புனைகதை வகைகள் - அதற்கான சான்றுகள்.

கூறு–5. நாவல், சிறுகதை உறுப்புகள், புனைகதையில் புனைவும் எதார்த்தமும், படைப்புக்கும் படைப்பாளிக்குமிடையிலான உறவு – படைப்புக்கும் வாசகருக்குமான உறவு – பனுவலும் வாசிப்பு முதன்மையும்.

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II.சிறுகதைகள் :

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2. மௌனி - ஏன்?
3. கு.அழகிரி சாமி - தெய்வம் பிறந்தது
4. ஜெயகாந்தன் - ஒருபிடிச் சோறு
5. சுந்தரராமசாமி - பிரசாதம்
6. ச.தமிழ்ச் செல்வன் - வெயிலோடு போய்...
7. மேலாண்மை பொன்னுசாமி - அரும்பு
8. பாமா - எளக்காரம்

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19. www.azhiasudar.com
20. www.thoguppugal.com
21. www.classical in tamil.in

TAM 1426 தமிழ் இலக்கிய வரலாறு – II **4 Hours/4Credit**

நோக்கம்: **தமிழிலக்கிய மாணவர்களுக்காக வடிவமைக்கப்பட்டுள்ள இப்பாடம் தமிழிலக்கிய வரலாற்றை காலம் மற்றும் இலக்கிய வகைமைகள் அடிப்படையில் புரிந்துகொள்ளச் செய்யும். நீண்ட தமிழிலக்கியப்பரப்பின் செம்பாதியில் பிற்பகுதியை இப்பாடம் உள்ளடக்கும்.**

பாடத்திட்டம்:

1. பிற்கால சோழர்கால இலக்கியங்களும் இலக்கணங்களும் : பிற்கால சோழர் எழுச்சி - இலக்கியங்களைத் தொகுத்தல் என்னும் செயல்முறை - திருமுறைகள் - சைவசாத்திரங்கள் - வைணவம் - நாதமுனிகள் - வைணவ உரைகள் - பெரியபுராணம் தொடர்ச்சியாய்த் திருவிளையாடல் புராணம் -
2. சோழர்கால காப்பியத் தேய்வும் சிற்றிலக்கியங்களின் வரவும்: நன்னூல்- வீரசோழியம்- நேமிநாதம் போன்ற இலக்கண நூல்கள். 96 சிற்றிலக்கிய வகைகள் - உரையாசிரியர்களின் பெருக்கம் - பெருங்காப்பியம் தேயவும் சிற்றிலக்கியம் தோன்றவும் உண்டான காரணங்கள்.
3. நாயக்கர் காலம் : பரணி, கலம்பகம், பிள்ளைத் தமிழ், தூது, உலா போன்றவை – அரசர்களும் வீரர்களும் பாடப்படுதல் - சமூக அடிநிலை மாந்தர்கள் பாடப்பெறுதல் - முக்கூடற் பள்ளு குற்றாலக் குறவஞ்சி – தலபுராணங்கள் - சித்தர் பாடல்கள் - தனிப்பாடல்கள்.
4. ஐரோப்பியர்களின் வருகை: சமயப் பரவல் - உரைநடை அறிமுகம் - புதிய வசன நடை – அச்சுப் பண்பாடு- அகராதிகள், எழுத்து சீர்திருத்தம் - பழைய ஏடுகள் அச்சேறல் - புலவர்கள் வரலாறு – வரலாறு எழுதும் புதிய நடைமுறை – நாவல், சிறுகதை அறிமுகம் - செய்யுள் அடைந்த புதுக்கவிதை வடிவம்.
5. நவீன இலக்கியங்கள்: புதுக்கவிதை எழுச்சியில் பாரதியார் பாரதிதாசன் ந.பிச்சமூர்த்தி - இதழ்கள் இதழியல் நடை – நாவல்களின் பெருக்கமும் நிதான மடைதலும் - புதிய தமிழ் உரைநடை மற்றும் தனித்தமிழ் இயக்கம் உள்ளிட்டவை – தமிழாரய்ச்சி - இலக்கிய இயக்கங்கள் - நாட்டாரியலும், தொல்லியலும் - இருபதாம் நூற்றாண்டின் கடைசி இருபதாண்டு போக்குகள்.

பாடநூல்

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எஸ்.ஸ்ரீகுமார் சுதர்சன் புக்ஸ், நாகர் கோவில்

பார்வை நூல்கள்

ஆ.வேலுப்பிள்ளை - தமிழிலக்கியத்தில் காலமும் கருத்தும் குமரன் பதிப்பகம், கொழும்பு – சென்னை 2006
க.கைலாசபதி - தமிழ் நாவல் இலக்கியம், குமரன் பதிப்பகம், கொழும்பு – சென்னை 2006
மு.வரதராசனார் - தமிழ் இலக்கிய வரலாறு- சாகித்ய அகாடமி வெளியீடு
கா.மீனாட்சி சுந்தரம் - ஐரோப்பியர்களின் தமிழ்பணி- சென்னைப் பல்கலைக்கழக வெளியீடு.
மது.ச.விமலானாந்தம் - தமிழிலக்கிய வரலாறு
மயிலைசீனி. வேங்கடசாமி - பத்தொன்பதாம் நூற்றாண்டு தமிழிலக்கியம், மெய்யப்பன் தமிழாய்வகம் - சிதம்பரம்

ஆ.கி. பரந்தாமனார் - நாயக்கர் காலம்.
வை.சதாசிவ பண்டாரத்தார் - பிற்கால சோழர் வரலாறு அண்ணாமலை பல்கலைக்கழகம் - சிதம்பரம்

TAM 1210 திரைப்பட ரசனையும் குறும்படத் தயாரிப்பும் **3 Hours/2Credit**

நோக்கம்:
திரைப்படக் கலையின் அடிப்படைகளை அறியச்செய்வதன் மூலம் மாணவர்களின் திரைப்பட ரசனையை மேம்படுத்தி குறும்படத்தயாரிப்பில் பங்கு பெறச் செய்தல் இப்பாடத்தின் நோக்கமாகும். இதன் மூலம் திரைப்படங்கள், தொலைக்காட்சித் தொடர்கள், விளம்பரங்கள் உள்ளிட்ட காட்சி ஊடகங்களில் தங்கள் ஆர்வங்களைப் பட்டை தீட்டிக் கொள்ளும் வாய்ப்பை மாணவர்கள் பெறுவர் திரைக்கலையின் அடிப்படைகள் – திரைப்படம் எனும் கூட்டுக்கலை – திரைப்படம் எனும் அறிவியல் கலை

கூறு 1. ஷாட் வகைகள் – கோணங்கள் – கேமரா அசைவுகள் – படத்தொகுபில் அர்த்தம் கொள்ளும் சினிமா

கூறு 2. குறும்படங்களின் தேவைகள் – வகைகள் – குறும்படங்களும் பெரும் படங்களும் வேறுபடும், ஒன்றிணையும் புள்ளிகள்

கூறு 3. சிறந்த குறும்படங்களை (உலகளவிலான மற்றும் தமிழ்) திரையிட்டு அதன் சிறப்புக்கள் தயாரிப்பு முறைகளை விவாதித்தல்

கூறு 4. குறும்படங்களுக்கான திரைக்கதையை உருவாக்குதல் – படத்தயாரிப்பின் மூன்று நிலைகள் (தயாரிப்புக்கு முன் – படப்பிடிப்பு – படப்பிடிப்புற்குப் பின்) -

கூறு 5. குறும்படத் தயாரிப்பு: மாணவர்களைக் குழுக்களாகப் பிரிந்து 5 லிருந்து 15 நிமிடங்களுக்குள்ளான படங்களைத் தயாரிக்கச் செய்வதன் மூலம் குறும்படத் தயாரிப்பு முறைகளையும் நுணுக்கங்களையும் செயல்வழிமூலம் கற்கச் செய்தல்.

இப்பாடத்தின் அகமதிப்பீட்டுத் தேர்வுகள் 50% எழுத்துத் தேர்வாகவும் 50% செய்முறைப் பயிற்சியாகவும் அமையும். புறமதிப்பீட்டுத் தேர்வு 100% செய்முறைப் பயிற்சியாக அமையும்.

பரிந்துரை நூல்கள்

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2. சினிமா ஓர் அற்புத மொழி: எம். சிவகுமார்: 2003: சவுத் விஷன் வெளியீடு
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4. Basic Tool Kit & Resource Guide for Young Film Makers: AFI American Film Institute: 2008

TAM1428 நாட்டுப்புற வழக்காற்றியல் **5Hours/4Credit**

நோக்கம்:நாட்டுப்புறவியல் எனும் துறையை அறிமுகம் செய்வித்து, நாட்டுப்புற மக்களின் வாழ்வியலோடு பிணைந்துள்ள பண்பாட்டுச் செயல்பாடுகளைக் கோட்பாடுகளின் வழி புரிந்துகொள்ளச் செய்தல் இப்பாடத்தின் நோக்கமாகும்.

கூறு:1 நாட்டுப்புறவியல் விளக்கம் - அறிஞர்களின் கருத்துகள் - நாட்டுப்புறவியல், நாட்டுப்புறம், நாட்டார் ஆகிய சொற்களுக்கான வரையறைகள் - ஐரோப்பிய – தமிழ்ச்சூழலில் அறிஞர்களிடைய நடைபெற்ற விவாதங்கள் - வழக்காறுகள் குறித்த விளக்கங்கள் - சூழல் (Context), பாடம்(Text), இழைவு (Texture) அடிப்படையில் வழக்காறுகளை நிர்ணயம் செய்தல் - வாய்மொழி வழக்காறுகளின் இயல்புகளை அடையாளம் காட்டுதல் - வழக்காறுகளுக்கு இடையிலான தொடர்பினைச் சுட்டுதல்.

கூறு:2 வாய்மொழி இலக்கியப் பண்புகள் - பாரி-லார்டு கோட்பாடு - செவ்வியல் இலக்கியப் பண்புகள் - வாய்மொழி மற்றும் செவ்வியல் - இவை இரண்டும் இணையும் மையப்புள்ளிகள் - வேறுபடும் இடங்கள் - வாய்மொழி மரபின் தொடர்ச்சியே செவ்வியல் மரபு என்கிற விவாதம் - பாணர் - புலவர் மரபு - சங்கப் பாடல்களைச் சான்று காட்டி விளக்குதல்.

கூறு:3 நாட்டுப்புறப் பாடல்கள் - தாலாட்டு - ஒப்பாரி - குழந்தைப் பாடல்கள் முதலானவை - பழமொழிகள் - விடுகதைகள் - சூழல் அடிப்படையில் விளக்குதல்.

கூறு:4 நாட்டுப்புறக் கதைகள் - இயற்கை, தெய்வம், பேய் முதலியன பற்றிய கதைகள் - உயிரியங்கள் பற்றிய கதைகள் - அரசன், நீதி, அறம் பற்றிய கதைகள் - குடும்பம் பற்றிய கதைகள், சங்கிலித் தொடர்கதைகள் முதலானவை - நாட்டுப்புறக் கதைப்பாடல்கள் - பண்புகள் - வகைகள் - மதுரைவீரன் காத்தவராயன் கதைப்பாடல்களை எடுத்துக்காட்டல்.

கூறு:5 நாட்டுப்புற நிகழ்த்துக்கலைகள் - திருவிழாக்கள் - சடங்குகள் - நிகழ்த்தும் களம், காலம், நிகழ்த்தும் முறைகள் இவற்றிக்கிடையிலான உறவுகளை விவாதித்தல் - நாட்டுப்புற விளையாட்டுகள் - அகப்புற விளையாட்டுகள் - சமூகப் புலப்பாட்டுத் திறன் - நாட்டுப்புற மருத்துவம் - மாற்று மருத்துவ மரபுகள்.

பயன்படும் நூல்கள்

தே.லூர்து — **'நாட்டார் வழக்காற்றியல் : சில அடிப்படைகள்'**
நாட்டார் வழக்காற்றியல் ஆய்வு மையம், பாளையங்கோட்டை.

ஆறு.இராமநாதன் — **'தமிழர் கலை இலக்கிய மரபுகள்'**
மெய்யப்பன் பதிப்பகம், சிதம்பரம்.

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தமிழ்ப் பல்கலைக்கழகம், தஞ்சாவூர்.

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இ.முத்தையா — **'நாட்டுப்புற மருத்துவ மந்திரச் சடங்குகள்'**
அன்னம், சிவகங்கை.

இ.முத்தையா — **'நாட்டுப்புறச் சடங்குகளும் மனித உறவுகளும்'**
அரசு பதிப்பகம், மதுரை

தே.ஞானசேகரன் — **'மக்கள் வாழ்வில் மந்திர சடங்குகள்'**
பார்த்திபன் பதிப்பகம், திருச்சிராப்பள்ளி.

தே.ஞானசேகரன் — **'மந்திரம் சமயம் சடங்குகள்'**
பார்த்திபன் பதிப்பகம், திருச்சிராப்பள்ளி.

தர்மராஜ் — **'தமிழ் நாட்டுப்புறவியல் (பெண்கள், கவிஞர்கள், தெய்வங்கள்)'**
புலம் வெளியீடு, மதுரை.

வே.சரோஜா — **'மண்ணின் மணம்'**
வஞ்சிக்கோ பதிப்பகம், மதுரை.

இரா.பாலச்சந்திரன்(பதி.ஆ) — **'தமிழ்க்கதைப்பாடல்கள்'**
சாகித்திய அகாதெமி, புதுதில்லி.

ஆ.சிவசுப்பிரமணியன் — **'மந்திரமும் சடங்குகளும்'**
மக்கள் வெளியிடு, சென்னை.

ஆ.சிவசுப்பிரமணியன் — **'நாட்டார் வழக்காற்றியல் அரசியல்'**
கங்கு வெளியீடு, சென்னை.

சேவியர் அந்தோனி — **'ஈர்ப்பு விசை'** (பயன்பாட்டு நாட்டுப்புறவியல் ஆய்வுகள்)
வைகறைப் பதிப்பகம், திண்டுக்கல்.

Richard. M. Dorson — **'Folklore and Folklife'**
University of Chicago Press, Chicago.

Alan Dundes — **'Interpreting Folklore'**
Indiana University Press, Bloomington.

Department of Hindi
SYLLABUS
For UG program Under Part-I
Academic Year 2015-2016 onwards

Objectives:

- To make the students proficient in Hindi language.
- To help them invest knowledge in their career.
- To develop their communicative skills.
- To enhance their ability in speaking, reading and writing Hindi.
- To acquire good pronunciation and speak fluently.

Course structure: Text, grammar and applied grammar.
No of Papers: One per Semester
No of Lectures: One hour per day; Three hours per week.

Language Courses offered Under Part-I
(For 2015-16 onwards)

Semester	Course Code	Course Title	Credits	Hours per week	Hours per Semester
I	HIN1201	General Hindi-I	2	3	45
II	HIN1202	General Hindi-II	2	3	45
III	HIN2215	General Hindi-III	2	3	45
IV	HIN2216	General Hindi-IV	2	3	45

Part-I General Hindi

This course is open to all except for the students who studied Hindi up to 10th & 12th standard. The objective of the course is to support and promote the learning of Hindi language from the Basics.

Evaluation Pattern

Ratio of Marks awarded

Internal: 100 Marks

Test-1(30 Marks) + Quiz-1(10 Marks) +Assignment-1(10 Marks) =50Marks
Test-2(30 Marks) + Quiz-2(10 Marks) +Assignment-2(10 Marks) =50Marks

Duration of the Internal Test: 1 Hour.
External: 60 Marks
Duration of External Examination: 2 Hours.
Total Marks: Internal + External.

- Two Academic years/Four semesters
- The course curriculum is divided into 3 Modules.
- Each Module for 15 Hours classroom teaching.

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Semester-I

HIN1201 **General Hindi-I** **3Hr/2Cr**

Objective:

- To make the students learn from words to sentences.
- To impart Basic Hindi Knowledge.

Module-I (Vocabulary)

Days
Months
Relations
Vegetable
Fruits
Flowers
Numbers (1 to100)

Reference:

Hindi Vatayan-Dr.K.M.Chandramohan-Vishva vidhyalay Publication, Varanasi, 2010.

Module-II (Prose)

Samay ka sadhupayog
Sant Tulsidaas
Mahakavi Thiruvalluvar
Rastrakavi Bharati

Reference:

Hindi Parichay-Dakshin Bharat Hindi Prachar Sabha, 2006.

Module-III (Grammar & Translation)

Unit-I (Grammar)

Singular-Plural
Gender
Synonyms
Antonyms
Question Making

Unit-II (Translation)

Exercise 1 to 5

Reference:

Hindi Parichay-Dakshin Bharat Hindi Prachar Sabha, 2006.

Semester-II

HIN1202 **General Hindi-II** **3Hr/2Cr**

Objective:

- To enhance creative thinking through short stories.
- To develop the reading, speaking and writing skills in Hindi.

Module-I (Short Stories)

Kuve me chand
Kapati Kauva
Lalchi kutta
Fakeer aur Badshah
Aam ke ped
Bandar aur Bakra
Shikaree aur sher

Reference:

Mazedhaar Kahaniyan-Dhakshin Bharat Hindi pracahar sabha, 2006.

Module-II (Converstion & Letter writing)

Unit-I (Conversation)

In the Bus stand
In the Lodge
In the Hotel
Between Doctor and Patient
Between Student and Teacher

Unit-I (Letter writing)

Letter to Friend
Leave Letter
Books Order
Complaint Letter

Reference:

Hindi Parichay-Dakshin Bharat Hindi Prachar Sabha, 2006.
Pramanik Alekhan aur tippan-Prof.M.A.Viraj, Shiva Shakti Printers, Delhi, 2013.

Module-III (Grammar and Translation)

Introduction to Tense
Translation - Exercise 1 to 5

Text Book:

Subodh Hindi Rachna-Dhakshin Bharat Hindi pracahar sabha, 2013.

Semester-III

HIN2215 **General Hindi-III** **3Hr/2Cr**

Objective:

- To make the students appreciate the nuances of Hindi language through one act plays.
- To develop the art of writing essays.
- To have the basic knowledge in Hindi grammar.

Module-I (One act play)

Seetha
Apoorva thiyag
Parivartan
Sone ki Varsha

Reference:

Sone ki Varsha-Dhakshin Bharat Hindi pracahar sabha, 2009.

Module-II (Grammar)

Unit-I (Grammar)

Sangya
Sarvanaam
Visheshan
Kriya
Kriya visheshan

Unit-II (Applied Grammar)

Hints Development.

Reference:

Hindi Vyakaran praveshika-1-Dakshin Bharat Hindi Prachar Sabha, 2012.

Module-III

Unit-I (General Essays)

Hamara desh
Rashtra Bhasha Hindi
Madurai
Tajmahal
Vidhyasagar
Vivekanand

Unit-II

Comprehension
Translation (Ex. 5 to 10)

Reference:

Subodh Hindi Rachna-Dhakshin Bharat Hindi pracahar sabha, 2013.
Comprehension as Prepared by the Department.

Semester-IV

HIN2216 **General Hindi-IV** **3Hr/2Cr**

Objective:

- To familiarize the students with poetic words.
- To enhance the students' linguistic competency.
- To enable them to use the different registers through grammar at an advanced level.

Module-I (Modern Poetry)

Bhikshuk
Maa kahe kahani
Pupshp ki Abhilasha
Raja aur Rani
Khilouna

Reference:

Padhya sarita-Dhakshin Bharat Hindi pracahar sabha, 2009.
Kavya kusum-Bharat Hindi pracahar sabha, 2009.

Module-II (Grammar)

Sambandbodhak
Samuchchaybodhak
Vismayaadibodhak
'Ne' ka proyog
Upasarg
Prathyai

Reference:

Hindi Vyakaran praveshika-1-Dakshin Bharat Hindi Prachar Sabha, 2012.

Module-III (Grammar and Translation)

Translation.
Precise Writing.

Reference:

Subodh Hindi Rachna-Dhakshin Bharat Hindi pracahar sabha, 2013.
Pramanik aalekhan aur tippani- prof.M.A.Viraj-Shivasakti printers, Delhi, 2013.

French – Part – I
Study plan for UG (Aided) students (2015 batch onwards)
Courses offered for UG Programme under Part I

Semester	Category	Code	Course Title	Hr/ wk	Cr.
I	Part I	FRE 1201	General French - I	3	2
II	Part I	FRE 1202	General French - II	3	2
III	Part I	FRE 2203	Advanced French - I	3	2
IV	Part I	FRE 2204	Advanced French - II	3	2

Rationale:

In the present context of globalization, mobility and migration, there is a growing need for learning a foreign language in order to compete with the job market. Learning a foreign language would also be a gateway to undertake higher studies in French / Francophone universities.

FRE 1201 & FRE 1202 – General French I & II

Objective:

This course aims to develop the students' proficiency in the four basic skills of listening, speaking, reading and writing French, with equal thrust on vocabulary building and cultural awareness.

Syllabus structure:

The course content is based on the recommendations given by Common European Framework in Language Learning.

The syllabus aims at:

(a) Developing communicative competence of the students in French.
(b) Creating cultural awareness.
(c) Promoting autonomy in learning French.

Text book:

Monique Denyer, Agustin Garmendia, Marie-Laure Lions-Olivieri, *Version Originale 1* Méthode de français – Livre d'élève (A1), Editions Maison des langues, Paris, 2009.

Grammar book for reference :

1. Roxane Boulet, Anne Vergne-Sirieys, Sylvie Poisson-Quinton. Célyne Huet-Ogle, *Grammaire expliquée du français*. (niveau débutant)

Dictionaries:

1. Bilingual: **The Concise Oxford-Hachette French Dictionary**
2. Monolingual French: **Le Petit Robert**.

Duration:

The course content to be covered in one semester is divided into 4 units. Each unit is taught for a period of 10 hrs.

FRE 1201 **GENERAL FRENCH – I** **3hr / wk: 2cr**

Unit 1	Parlez-vous français?	France, Greetings, Francophone countries
Unit 2	Elle s'appelle Laura.	Social relations, French Personalities.
Unit 3	Mon quartier est un monde.	Location - Locate a place in the map of France.
Unit 4	Tes amis sont mes amis.	Invitations

FRE 1202 **GENERAL FRENCH –II** **3hr / wk: 2cr**

Unit 1	Jour après jour	Social behaviour, Hobbies.
Unit 2	On fait les boutiques	Clothes and fashion
Unit 3	Et comme dessert?	Gastronomy / Gourmet
Unit 4	Je sais bricoler.	Information and services

FRE 2203 & FRE 2204 – Advanced French I & II

Objectives:

This course aims to develop the students' proficiency in the four basic skills of listening, speaking, reading and writing French, with equal thrust on vocabulary building and cultural awareness.

Syllabus structure:

This course helps the students to understand French society and its culture. It enables them to enrich their vocabulary and expressions. It also familiarizes them with the sentence structure of the language, reinforcing the grammar rules and the sentence patterns which have been dealt with in the earlier semesters. Focus will also be on translation skills which would open up opportunities for the students in areas of education, business transactions at international level, specifically in the IT & ITES organisations.

The syllabus aims at:

1. This course aims at developing communicative competence of the students in different situations (commercial, social, technical)
2. To introduce the students into the field of Translation

Text books:

1. Denis C. Meyer, *Clés pour la France en 80 Icônes Culturelles, Hachette*, Paris, 2010.
2. Evelyne Siréjols, Dominique Renaud, *Grammaire 450 nouveaux exercices* (niveau intermédiaire), CLE International, 2012.

Grammar books for reference:

1. Roxane Boulet, Anne Vergne-Sirieys, Sylvie Poisson-Quinton. Célyne Huet-Ogle, *Grammaire expliquée du français*. (niveau intermédiaire)

Dictionaries:

1. Bilingual: **The Concise Oxford-Hachette French Dictionary**
2. Monolingual French: **Le Petit Robert**.

Duration:

The course content to be covered in one semester is divided into 3 units. Each unit is taught for a period of 13 hrs.

FRE 2203 **ADVANCED FRENCH - I** **3hr / wk: 2cr**

Unit 1 Alimentation et gastronomie - Les pronoms personnels - Le pronom en - Le pronom y).
Unit 2 Célébrités - Le temps passé (le passé composé) - L'imparfait.
Unit 3 Histoire et institutions – Le Futur - Le conditionnel présent – Le Participe Présent – Le gérondif.

FRE 2204 **ADVANCED FRENCH – II** **3hr / wk: 2cr**

Unit 1 Langue, médias et culture - Les pronoms (possessifs, démonstratifs, interrogatifs)
Unit 2 Industrie, éducation et travail - Le pronom relatif simple - Le subjonctif
Unit 3 La vie quotidienne - Le conditionnel passé – Le plus-que parfait – Le futur antérieur

Undergraduate Department of English

Programme for BA English from 2015 batch

Sem.	Part		Code	Title	Hr/ Wk	Cr.	Marks
I	Part I		TAM/FRE/HIN		3	2	30
	Part II		ENG 1201	Conversational Skills	3	2	30
	Part III Major	Core	ENG 1461	Prose I:	4	4	60
			ENG 1463	Short Story	4	4	60
			ENG 1565	One Act Play	5	5	75
		Supportive	ENG 1467	Literary Terms and Forms	5	4	60
	Part IV	Non-Maj. Elect.	TAM / ENG 1221	Basic Tamil / Advance Tamil / Film Appreciation	3	2	30
		Life Skill I	ENG 1223 ENG 1225	Word Power/ Pronunciation Skills	3	2	30
				Total	**30**	**25**	**375**
II	**Part I**		**TAM/FRE/HIN**		3	2	30
	Part II		ENG 1202	Reading & Writing Skills	3	2	30
	Part III Major	Core	ENG 1562	Poetry I: Chaucer to Arnold	5	5	75
			ENG 1464	Fiction I:	4	4	60
			ENG 1466	Drama I: Elizabethan to Augustan	4	4	60
		Supportive	ENG 1468	History of English Literature	5	4	60
	Part IV	Non-Maj. Elect.	TAM / ENG 1222	Basic Tamil / Advance Tamil / Science Fiction	3	2	30
		Life Skill II	ENG 1224	Spoken English	3	2	30
	Part V	Extension	XXX 0000	Extension Activity (PED/NSS/NCC/SLP)	2	1	
				Total	**30**	**25+1**	**375**
III	**Part I**		**TAM/FRE/HIN**		3	2	30
	Part II		ENG 2201	Study Skills	3	2	30
	Part III Major	Core	ENG 2561	Indian Literature in English	5	5	75
			ENG 2563	Poetry II: Modern English Poetry	5	5	75
			ENG 2565	Drama II: Modern British Drama	5	5	75
			ENG 2467	Fiction II:	4	4	60
		Supportive	ENG 2469	Critical Reading & Writing	5	4	60
			Total		**31**	**27**	**405**

Sem.	Part		Code	Title	Hr/ Wk	Cr.	Marks
IV	Part I		TAM/FRE/HIN		3	2	30
	Part II		ENG 2202	Career Skills	3	2	30
	Part III Major	Core	ENG 2562	American Literature	5	5	75
			ENG 2564	Translation	5	5	75
			ENG 2566	Prose II:	4	4	60
		Innovative	ENG 2568	21st Century Bookers	5	5	75
		Supportive	ENG 2470	Modern Grammar & Usage	5	4	60
	Part V	Extension		Extension Activity (NSS/NCC/SLP)	2	1	
				Total	**30**	**27+1**	**405**
V	III	Core	ENG 3671	New Literatures in English	6	6	90
			ENG 3673	Literary Criticism	6	6	90
			ENG 3675	Fiction III:	6	6	90
		Innovative	ENG 3577	English and Media	5	5	75
	IV	Life Skill III	ENG 3279	Creative English	3	2	30
	IV	VAL	XXX xxxx	Value Education	4	2	30
				Total	**30**	**27**	**405**
VI	III	Core	ENG 3672	Introduction to Modern Linguistics	6	6	90
			ENG 3674	Contemporary English Literature	6	6	90
			ENG 3676	English Language Education	6	6	90
		Innovative	ENG 3578	Film and Literature	5	5	75
	IV	EVS	ENG 3200	Environmental Studies & Literature	4	2	30
	IV	Life Skill IV	ENG 3280	English for Competitive Exams	3	2	30
				Total	**30**	**27**	**405**
				Grand Total for semesters I-VI	**180**	**158+2**	**2370**

Life Skills Courses

SEM	Course No	Course Title	Hrs/Wk	Cr	Marks
I	ENG 1223	Word Power/Pronunciation Skills	3	2	30
II	ENG 1224	Spoken English	3	2	30
V	ENG 3279	Creative English	3	2	30
VI	ENG 3280	English for Competitive Exams	3	2	30
Total			**12**	**8**	**120**

Non-Major Electives

SEM	Course No	Course Title	Hrs/Wk	Cr	Marks
I	ENG 1221	Film Appreciation	3	2	30
II	ENG 1222	Science Fiction	3	2	30
Total			**6**	**4**	**60**

Self-Supportive Courses

Sem	**Code**	**Title**	**Hrs**	**Cr**	**Marks**
I	ENG 1467	Literary Terms & Forms	5	4	60
II	ENG 1468	History of English Literature	5	4	60
III	ENG 2469	Critical Reading & Writing	5	4	60
IV	ENG 2470	Modern Grammar & Usage	5	4	60
			20	**16**	**240**

ENG 1201 **Conversational Skills** **3 Hrs/2 Cr.**
[CS]

The Course aims at helping students converse in English on the matters that matter to them in daily life. It provides the learners with ample opportunities and social contexts through conversations so that they can freely and fluently use informal English. It also exposes them to the apt vocabulary of such informal conversations.

Student shall

- enhance their conversational fluency as well accuracy
- fine-tune their pronunciation and accent
- become familiar with and therefore effortlessly internalize the structures of English

Unit 1 : Conversational skills
Unit 2 : Day-to-day matters like eating, emotions, fashion, health, friendship, money, romance, housing, job, faith & hope, busy life, memory, shopping, time, Traffic, travelling, vacation, weather
Unit 3 : Social expressions
Unit 4 : English sounds
Unit 5 : English accent and intonation

Text Book:
Sekar, John, J. 2014. **Conversational Skills.** Madurai. Department of English, the American College.

ENG 1461 **Prose I** **4 Hrs. /4Cr.**
[PR1]

This course aims to introduce representative models of English prose for students to critically examine a wide variety of prose styles. The essays compiled under Prose –I range from Francis Bacon to George Orwell. The selection includes different types of essays viz didactic, informative, imaginative and journalistic.

At the completion of the course students shall be able to

i. enhance their vocabulary and make effective use of it
ii. differentiate between fiction and non fiction
iii. understand and analyze any conventional prose writing
iv. appreciate and practice creative writing

Unit 1

Francis Bacon	"Of Truth," "Of Studies," & "Of Friendship"
Abraham Cowley	"On Avarice" & "The Country Life"

Unit 2

Joseph Addison	"Sir Roger at Church," "Witchcraft: The Story of Moll White," & "Party Patches"
Richard Steele	"The Pangs of the Jilted Lover" & "The club at the Trumpet"

Unit 3

Oliver Goldsmith	"Man in Black" & "The Fear of Mad Dogs Ridiculed"
Charles Dickens	"Night Walks" & "The Enlightened Clergyman"

Unit 4

Samuel Johnson	"The bustle of idleness described and ridiculed" & "The use of memory considered"
Charles Lamb	"Dream Children," "A Dissertation Upon Roast Pig," & "The Praise of Chimney-Sweepers"

Unit 5

George Orwell	"A Hanging," "Politics and the English Language," & "Reflections on Gandhi"
John Ruskin	"The Veins of Wealth" & "The Law of Repetition"

Self study

"Of Friendship," "Party Patches," "The Fear of Mad Dogs Ridiculed," "The Praise of Chimney-Sweepers," "Reflections on Gandhi"

References

Boulton, Majorie. The Anatomy of Prose. New Delhi: Kalyani Publishers, 1993.
Minton, William. A Manual of English Prose Literature. New Delhi: Atlantic Publishers, 1995

ENG 1463 **Short Story [SS]** **4 Hrs./4 Cr**

The course is designed to provide students an experience of reading and enjoying a variety of English short stories. The course would focus on increasing students' understanding of the key elements in Short story. It would aim at strengthening students' ability to read and analyze short stories meaningfully. Further, it intends to motivate students in expressing their ideas and experiences in short fiction forms.

At the completion of the course students will be able to

i. understand Short stories as a genre and its basic elements including plot, character, dialogue, theme, symbol, irony, and setting.
ii. read, understand and enjoy a variety of short stories
iii. analyze short stories meaningfully and write analytically about them.
iv. relate the various reflections and instances in short stories with personal experiences
v. articulate their ideas/imaginations in written forms.

UNIT 1

1. The Gift of the Magi - O. Henry
2. The Necklace - Guy de Maupassant
3. Christmas Every Day - William Dean Howells
4. An Angel in Disguise - by T.S. Arthur

UNIT 2

5. A Tiger in the House - Ruskin Bond
6. Karma - Kushwant Singh
7. An Astrologer's Day - R.K.Narayan
8. Kabuliwala - Rabindranath Tagore

UNIT 3

9. The Storyteller - by H. H. Munro (Saki)
10. Clay - James Joyce
11. The Model Millionaire - Oscar Wilde
12. A Ghost Story - Mark Twain

UNIT 4

13. A Simple Question - Temsula Ao
14. One of These Days - Gabriel Garcia Marquez
15. The Enemy - Pearl S. Buck
16. Shooting an Elephant - George Orwell

UNIT 5

17. The Thief - Fyodor Dostoevsky
18. Sherlock Holmes: A Case of Identity - Sir Arthur Conan Doyle
19. A Haunted House - Virginia Woolf
20. The Doll's House - Katherine Mansfield

Self Study

1. The Gift of the Magi - O. Henry
2. An Astrologer's Day - R.K.Narayan
3. The Storyteller - by H. H. Munro (Saki)
4. Shooting an Elephant - George Orwell
5. Sherlock Holmes: A Case of Identity - Sir Arthur Conan Doyle

References

Cassill,R.V., **The Norton Anthology of Short Fiction**. 3rd Edition., New York: W.W.Norton and Company, 1986. P

Learning English through Short stories – hand out, British Council, 2009-10

ENG 1565 **One Act Play [OAP]** **5 Hrs/5 Cr**

This course aims at enabling students to learn one-act play as a genre. These short plays will provide an interesting quick read and will help students explore different themes and style.

Students shall

i. learn the dimensions and techniques of One Act Plays
ii. identify different types of One Act Plays like vaudeville, farce, horror and drawing room comedy
iii. comprehend the adaptation of One Act plays for stage (fewer props, scenery, and cast members)
iv. become familiar with the basic elements of plays like character, setting, plot and theme
v. analyze and explore different styles of writing like moralistic, humorous, satirical and philosophical

Unit 1

J.M.Synge	Riders to the Sea
John Galsworthy	Defeat
A. A. Milne	The Ugly Duckling

Unit 2

Tennesse Williams	The Frosted Glass Coffin
J. B. Priestley	Mother's Day
Harold Pinter	The Dumb Waiter

Unit 3

Eugene Ionesco	The Lesson
George Bernard Shaw	Press Cuttings
Norman McKinnel	The Bishop's Candlesticks

Unit 4

Fritz Karinthy	Refund
Eugene O' Neil	Thirst
Alice Gerstenberg	He Said and She Said-

Unit 5

Anton Chekhov	The Marriage Proposal
W.W.Jacobs	The Monkey's Paw-
Arthur Miller	A Memory of Two Mondays-

Texts for Self Study

A. A. Milne	The Ugly Duckling
Harold Pinter	The Dumb Waiter
Norman McKinnel	The Bishop's Candlesticks
Alice Gerstenberg	He Said and She Said
Arthur Miller	A Memory of Two Mondays

References

Innes, Christopher. Modern British Drama 1890-1990. New York: Cambridge University Press, 1992.
Lewis, Allan. American Plays and Playwrights of the Contemporary Theatre. New York: Crown Publishers, 1970.
Boulton, Marjourie. The Anatomy of Drama. London: Routledge & Kegan Paul Limited, 1960.

ENG 1223 **Word Power [WP]** **3 Hrs./2 Cr**

The course aims at helping students to enrich English vocabulary for academic and career purposes. They are introduced to a variety of strategies to enhance their ability to understand and retain new words. It also enables them to better appreciate the rich terminology used in medicine, business, education, law, technology, sciences and the humanities.

Students shall be able to

- test their present vocabulary range
- broaden their understanding of different and difficult words
- be familiar with the technical terms
- get trained in the vocabulary for professional exams
- enrich vocabulary through games.

Unit I Introduction; test of vocabulary range; test of verbal speed; test of verbal responsiveness; affixation-prefix, suffix; synonyms.

Unit II Homonyms and homographs; words of foreign origin; antonyms; redundant words; phrases; acronyms; words commonly confused; slang and new words.

Unit III Technical terms-personality types; relationships; medicines; science; business, education, law, technology, and the humanities.

Unit IV Vocabulary for professional exams-TOEFL; IELTS; SAT; GRE; CAT; MAT; TANCET; BEC; GMAT.

Unit V Vocabulary games-synonyms; antonyms; compound word; homophone; idioms; literature; oxymoron; parts of speech; prefix; suffix; root word; spelling; word play.

Reference

Lewis, Norman. (2015) *Word Power Made Easy*. New Delhi: Bloomsbury.

Web Resources

www.spelling-words-well.com
http://spellingbee.com
www.freetech4teachers.com
www.word-buff.com
www.vocabulary.com
http://www.merriam-webster.com/home.htm
http://infohawk.uiowa.edu

ENG 1225 Pronunciation Skills 3 Hrs./2 Cr
[PS]

The Course aims at fine tuning students' English pronunciation skills. It deals with all major segmental and suprasegmental features of Standard Spoken British English. The Course is meant for those who need special attention in this aspect of Spoken English. Since it is a practical course, students will be given a thorough practice in these skills

The learners shall be able to

i. articulate all the vowels and constants
ii. follow in their speech the rules of word accent
iii. identify the patterns of Word Accent
iv. use four major intonational patters in their speech
v. recognize the discoursal features such elision, assimilation, juncture

Unit 1 : English Vowels: Practice
Unit 2 : English Consonants: Practice
Unit 3 : Word Stress and Sentence Stress:
Unit 4 : Intonation
Unit 5 : Assimilation, Juncture, Elision

Reference

O'Connor, J.D. **Better English Pronunciation**. New Delhi: CUP, 2000.
Banksal, R.K. & Brasnett, Clive. **An English Phonetic Reader**. Chennai: Orient Longman, 1994.
Balasubramanian, T. **English Phonetics for Indian Students: A Workbook**. Chennai: Macmillan, 1998.
Robert, L. Allen, Allen, Virginia French, & Shute, Margaret. **English Sounds and Their Spellings**. New York: Thomas Y. Crowell Company, 1966.

ENG 1221 **Film Appreciation [FA]** **3Hrs/2 Cr**

This is an introductory course that aims at exposing learners to cinema as an art form with socio-cultural and political underpinnings. It deals with Western as well as Indian films against the larger context of world cinema.

At the completion of the course, students shall learn to

i. acknowledge the various aspects of Films
ii. read the visuals and visualize the text
iii. study cinema as an industry
iv. locate cinema in social milieu
v. critically analyze films

Unit 1 Aspects and genres: premise, plot, characterization, screenplay, direction, acting, sound & image—action, adventure, comedy, crime, drama, epic, horror, musical, romance, science fiction and war

Unit 2 Reading a Visual and Visualizing Script: Montage and Mise-es-scene

Unit 3 Film History: Origin and development, early American productions, rise of Hollywood

Unit 4 German Expressionism, Art and Dialectic in Soviet Film, Italian Neo-realism, French New Wave, and Asian Film

Unit 5 Screening and Critical Analysis

Self Study

Films for screening may include the following

1. The Birth of a Nation (1915)
2. The Cabinet of Dr.Caligari (1920)
3. The Battleship Potemkin (1925)
4. City Lights (1931)
5. Citizen Kane (1941)
6. The Bicycle Thief (1948)
7. Rashomon, 1950
8. Seven Samurai (1954)
9. Pather Panchali (1955)
10. 12 Angry Men (1957)
11. Ben-Hur (1959)
12. North By Northwest (1959)
13. Breathless (1960)
14. Psycho (1960)
15. Lawrence of Arabia (1962)
16. Charulatha (1964)
17. The Sound of Music (1965)
18. The Godfather (1972)
19. Schindler's List (1993)
20. The Lion King (1994)
21. Forest Gump (1994)
22. The Shawshank Redemption (1994)
23. Titanic (1997)
24. Saving Private Ryan (1998)
25. The Matrix (1999)
26. Troy (2004)

Reference

Barnow, Erik and Krishnaswamy, S. **Indian Film: A Reviewing**. New Delhi: OUP, 1980
Beja, Morris. **Film and Literature: An Introduction**. London: Longman, 1997.
Ellis, Jack C. **A History of Film**. USA: Allyn & Bacon, 1995.
Hayward, Susan. **Key Concepts in Cinema Studies**. London: Routledge, 2004.
Monaco, James. **How to Read a Film**. London: OUP, 2009.
Murry, Edward. **Ten Film Classics: A Reviewing**. New York: Frederick Unger, 1978.
Robinson, David. **World Cinema: A Short History**. London: Eyre Methyen, 1981.

ENG 1467 **Literary Terms and Forms** **5Hr./4Cr.**
[LTF]

The Course is intended for the novice of English literature. Students familiarize themselves with the importance and uniqueness of literature as a major subject. They are introduced to major genres of English literature and the vocabulary of literature.

The students shall be able to

i. understand the purpose of literary studies
ii. demonstrate their understanding of the features of the major literary genres
iii. discuss the reading theories
iv. use effectively the vocabulary to discuss the various literary forms
v. learn theoretical terms and concepts

Unit 1: What is Literature? [Humanist, Structuralist, & Post-structuralist perceptions]
Unit 2: Poetry [Narrative & Lyrical],
Unit 3: Drama [Tragedy & Comedy], the One Act Play,
Unit 4: The Novel and the Short Story, Prose [the Essay, Biography, Autobiography]
Unit 5: Theories of reading: reader-response, deconstruction, new historicist, modernist, post-modernist, postcolonial, and psychoanalytic

Self Study
Chapter 1 of R.J. Rees, Eagleton, and Culler

Reference
Rees, R.J. **English Literature: An Introduction for Foreign Readers**. Chennai: Macmillan, 2000.
Culler, J. 2011. **Literary Theory: A Very Short Introduction**. London: OUP.
Eagleton, T. 2008. **Literary Theory: an Introduction**. New Delhi: Wiley India Pvt Ltd.
Abrams, M.H. A Glossary of Literary Terms. 7th ed. New York: Heinle & Heinle, 1997.
http://www.ohio.edu/people/hartleyg/ref../abrams_mh.pdf

ENG 1202 **Reading and Writing Skills** **3 Hrs./3 Cr.**
[RWS]

The Course aims at improving the learners' productive skills of English. It offers professional guidance on meaningful and aggressive reading experiences by familiarizing them with techniques and micro-skills of reading, comprehension abilities through literary and non-literary reading materials. It also strengthens their writing skills through the forms of writing that are useful to them academically and vocationally.

The learners shall

i. get training in aggressive speed reading with different sub-skills
ii. improve their comprehension abilities
iii. learn the art and craft of paragraph and a five-paragraph essay writing

Unit 1 : Reading and comprehension skills
Unit 2 : Reading at various speeds, skimming & scanning, inferring & interpreting, predicting, reorganizing material, comprehension skills
Unit 3 : Writing leave letters and apology letters
Unit 4 : Paragraph writing, five-paragraph essay writing,

Unit 5 : Types of essay and paragraph writing: descriptive, argumentation, narrative, and expository

Text Book

Sekar, John, J. 2014. **Reading and Writing Skills.** Madurai. Department of English, the American College.

ENG 1562 **Poetry I: Chaucer to Arnold [PY1]** **5Hrs / 5 Credits**

The aim of the course is to enhance the level of thinking of the students to such a degree that they can interact with poems from different ages of English literature, understand and appreciate the different genres of poetry such as Narrative Poetry and Lyric Poetry.

By the end of this course, students shall be able to

i. learn the basic themes of the medieval poetry and understand the medieval social setup
ii. read and analyze the high diction, sublime poetry of the premier craftsmen of the English Poetry
iii. explicate the highly intellectualized metaphysical poetry and will appreciate the strange imagery, the complicated thought and the use of paradox
iv. understand and appreciate a new kind of poetry that emphasized intuition over reason and the pastoral over the urban
v. explore more realistic narrative lengthy poems focused on meter and rhythm which are full of emotions.

Unit 1 **Geoffrey Chaucer to Philip Sydney**

Geoffrey Chaucer : "Prologue to The Canterbury Tales" (lines 1- 42)
Thomas Wyatt : "Farewell, Love"
Sir Philip Sydney : "Astrophel and Stella: I"

Unit 2 **Edmund Spenser to John Milton**

Edmund Spenser : Sonnet 54: "Of this worlds theatre in which we stay"
William Shakespeare : Sonnet 116: "Let me not to the marriage of true minds"
John Milton : "Lycidas," "Paradise Lost" Book I (Lines 1–30)

Unit 3 **John Donne to Thomas Gray**

John Donne : "Valediction, Forbidding Mourning"
Andrew Marvel : "To His Coy Mistress"
John Dryden : "Mac Flecknoe"
Alexander Pope : "Epistle to Dr.Arbuthnot"
Thomas Gray : "Elegy Written in a Country Churchyard"

Unit 4 **William Blake to John Keats**

William Blake : "Tyger"
William Wordsworth : "The solitary Reaper"
Samuel Taylor Coleridge: "Kubla Khan"
Percy Bysshe Shelley : "Ode to the west wind"
John Keats : "Ode on a Grecian Urn"

Unit 5 **Alfred Lord Tennyson to Mathew Arnold**
Alfred Lord Tennyson : "Ulysses" "Lotus Eaters"
Robert Browning : "My Last Duchess"
Mathew Arnold : "Dover Beach"

Self Study

Thomas Wyatt : "Farewell, Love"
John Milton : "Lycidas"
Alexander Pope : "Epistle to Dr. Arbuthnot"
Samuel Taylor Coleridge: "Kubla Khan"
Alfred Lord Tennyson: "Ulysses"

Reference

1. Abrams, M.H. **A Glossary of Literary Terms**. 11th Edition ed. Emeritus Geoffrey Harpham, 2015. Print, 448 Pages.
2. **English Poetry I: From Chaucer to Gray**. Vol. XL. The Harvard Classics. New York: P.F. Collier & Son, 1909–14;
3. **Six centuries of English Poetry: Tennyson to Chaucer, typical selections from the great poets**. Baldwin, James, Boston ; New York [etc.] : Silver, Burdett & company 320 Pages.
4. Spearing, A.C. **Medieval to Renaissance in English Poetry**. Cambridge UP, 1985. 380. Print.
5. http://www.bartleby.com/40/index1.html

ENG 1464 **Fiction I: Eighteenth Century** **4Hr./4Cr.**
[F1]

The Novel started to develop as a literary form during the 18th century. Fiction I, the first of the three sequential courses, will canvas the origin and development of the modern novel in England. In this course students will read early fiction that shaped the emerging genre.

Students shall be able to

i. study the development of novel as a literary genre
ii. learn the different types experimented by writers of that period – realistic, sentimental, satirical, allegorical and gothic
iii. analyze the novels from that period with specific focus on plot, character, point of view, theme and irony
iv. form critical opinions about the historical and cultural contexts, and literary merits of the novels.

Unit 1	Daniel Defoe	**Robinson Crusoe** (1719)
Unit 2	Jonathan Swift	**Gulliver's Travels (Book I & Book II)** (1726)
Unit 3	Henry Fielding	**Joseph Andrews** (1742)
Unit 4	Oliver Goldsmith	**The Vicar of Wakefield** (1766)
Unit 5	Horace Walpole	**The Castle of Otranto** (1764)

Self-study

Daniel Defoe	**Robinson Crusoe** (1719)
Jonathan Swift	**Gulliver's Travels (Book II)**

Reference

1. Allen, Walter. **The English Novel.** Harmondsworth: Penguin Books Ltd., 1954. Print.
2. Brian, McCrea. "Rewriting **Pamela**: Social changes and Religious Faith in **Joseph Andrews." Studies in the Novel**, Vol. XVI, No.2, Summer 1984. Print.
3. Cook, Terry. "Dividing the Swift Mind: A Reading of **Gulliver's Travels." Critical Quarterly,** XXII, No.3, Autumn, 1980. Print.
4. Eagleton, Terry. **The English Novel: An Introduction**. Oxford: Blackwell Publishing Ltd., 2005. Print.
5. Hilliard, Raymond F. "The Redemption of Fatherhood in **The Vicar of Wakefield." Studies in English Literature 1500-1900**. Vol. XXIII, No.3, Summer, 1983. Print.
6. Kettle, Arnold. **An Introduction to the English Novel: Defoe to George Eliot**. Vol.1. New York: Harper and Brothers, 1960. Print. <http://ia60140.us.archive.org/29/items/introduction009571mbp/introductionth009571mbp.pdf> Web.
7. Probyn, Clive T. **English Fiction of the Eighteenth Century 1700-1789**. Essex: Longman Group, 1987. Print.

ENG 1466 **Drama I: Elizabethan to Augustan** **4 Hrs./4 Cr.**
[D1]

The course introduces the origin and development of drama in English literature. It will help students cultivate the ability to read and appreciate drama. Students will be aware of the different aspects of drama and the importance of Shakespeare in relation to other playwrights. It will enable them to understand and analyze the nuances of dialogues and the handling of it by different playwrights of Elizabethan and Augustan periods.

On completion of the course, students shall be able to

i. appreciate the social, cultural, historical, political and artistic milieu of the play and the playwright
ii. understand the different aspects of drama like theme, plot, characterization, stage craft and rhetoric of theatre
iii. analyze how the themes of tragedy and comedy are treated effectively by Shakespeare and other playwrights
iv. develop analytical and critical thinking
v. understand the concept of vision and performance

Unit 1: Elizabethan Tragedy	
Christopher Marlowe	Doctor Faustus
Unit 2: Shakespearean Tragedy	
Shakespeare	Othello
Unit 3: Shakespearean Comedy	
Shakespeare	A Midsummer Night's Dream
Unit 4: Elizabethan Comedy	
Ben Jonson	The Alchemist
Unit 5: Augustan Comedy	
Oliver Goldsmith	She Stoops to Conquer
Self Study	
Oliver Goldsmith	She Stoops to Conquer

References

Bradley, A.C. Shakespearean Tragedy. London: Macmillan, 1904.
Charlton, H.B. Shakesperian Comedy. London: Methuen & Co Ltd, 1938.
Griffiths, Stuart. How Plays Are Made. Oxford: Heinemann Educational Books, 1982.
Neilson, William Allan (ed.). Lectures on The Harvard Classics: Drama. pp. 369-408. 27.04.2015. https://archive.org/details/lecturesonharvar00neiliala
O'Neill, Judith (ed.). Critics on Marlowe. London: George Allen and Unwin Ltd., 1969.
Watson, G.J. Drama: An Introduction. London: Macmillan, 1983.

ENG 1224 **Spoken English** **3 Hr./2 Cr.**
[SE]

The purpose of the course is to create a campus where English speaking capability can be harnessed by each and every student to increase their potentials to succeed in their professional and personal life.

At the completion of this course the students shall learn to

i. listen and comprehend well
ii. converse in their life situations
iii. use English for practical purpose
iv. speak fluently in any circumstances, and
v. improve students' communicative competence.

Unit 1: English Everywhere

Non- Conventional Pedagogical tools - Mobile, Television, Computer, News, Theatre, Famous Speeches, Friends etc.,

Unit 2: Speech Acts

Greetings, introducing oneself, invitation, making request, expressing gratitude, complimenting and congratulating, expressing sympathy, apologizing, asking for information, seeking permission, complaining and expressing regret, Idioms and Phrases

Unit 3: English in real life situations

At the College office, Library, Department, Bank, Railway station, Post office, Police station, Travel agency, Interview

Unit 4: Fluency Development

Vocabulary enhancement, Conversation skills, Role play, Commentary etc.,

Unit 5: Speaking skills

Presentation skills, Public Speaking skills, GD skills, Interview skills,
Independent practice: Listening to News-NDTV, BBC, CNN and paying attention to idiomatic usage of the language and different accent for speech acts that are used,
Watch and appreciate English movies.

Independent Practice: Watching English movies
Listening to various News channels
Listening to Podcasts on all the 4 language skills (LSRW)

Reference

Collins, Stevens. Practical Everyday English: A Self-study Method of Spoken English for Upper Intermediate and Advanced Students . Montserrat Publishing; 5th Revised edition edition, 2008
Mohan, Krishna and N.P. Singh. Speaking English Effectively. Delhi: Macmillan, 1995.
Sekar, John, J. 2014. Conversational Skills, Department of English, The American College.

ENG 1468 **History of English Literature** **5 Hrs/4 Cr.**
[HEL]

The Course aims at enabling students to gain some general knowledge out of which English literature has come into being as a whole and during its successive periods. In other words, students shall trace in a general way, from period to period, the social life of England and get some acquaintance with the lives of the more important major authors.

At the end of the Course, students shall be able to

- **i)** fix each major author in a particular social background
- **ii)** compare and contrast the literary texts and genres of different periods
- **iii)** comprehend both major and minor literary movements
- **iv)** write short notes and five-paragraph essays on minor and major writers' contribution

Unit1 From Old English to Restoration up to 1690
Unit 2 Eighteen Century Literature 1690-1780
Unit 3 Literature of the Romantic Period 1780-1830
Unit 4 Victorian Literature 1830-1920
Unit 5 20th Century Literature

Reference

Edward, Albert. **History of English Literature.** 5th ed. New Delhi: OUP.
Long, W.J. 2014. **English Literature.** New Delhi: Createspace.
Trevelyan, G.M. **English Social History.** London: Longman, 1978

ENG 1222 **Science Fiction** **3 Hrs/2 Cr.**
[SF]

The purpose of this course is to provide an understanding of contemporary science fiction by tracing the origin of the genre and many of the great works that incidentally paved way for vital scientific inventions.

At the completion of the course students shall be able to

- **i.** understand and appreciate Science Fiction
- **ii.** familiarise with the different Types of Science fiction - Hard and Soft Science Fiction
- **iii.** perceive the relationship between science and literature
- **iv.** trace the significance of science fiction in scientific inventions
- **v.** relate Science fiction to movies adapted from Science fiction

Unit 1 Introduction - Science Fiction - Classification
Unit 2 Time Travel Science Fiction - Time Machine - H.G . Wells
Unit 3 Detective Science Fiction - The Caves of Steel - Isaac Asimov
Unit 4 Alien Science Fiction – Childhood's End – Arthur C. Clarke
Unit 5 Science Fiction Film adaptation - Jurassic Park - Michael Chrichton

Self Study

Science Fiction Film adaptation - Jurassic Park - Michael Chrichton

Reference

Marshall B. Tymn The Science Fiction Reference Book: A Comprehensive Handbook and Guide to the History, Literature, Scholarship, and Related Activities of the Science Fiction and Fantasy Fields: Borgo, 1996

Proposal for Internal and External Evaluation Pattern

1. **Poetry & Drama**
   i. Annotation with three specific questions: 4/7x5 (1+2+2) = 20
   ii. Paragraph 5/7x6=30
   iii. Essay 5/7x10=50
2. **Prose & Fiction, Linguistics, Survey, Literary Forms & Terms, ELE, Criticism**
   i. Short Answer Questions 10x2 = 20 OR Multiple Choice
   ii. Paragraph 5/7x6=30
   iii. Essay 5/7x10=50
3. **Three hour courses of two hour exam duration**
   i. Short answer questions 10x2=20
   ii. Paragraph 2/3x5=10
   iii. Essay 3/5x10=30
4. **Conversational Skills, Spoken English, Pronunciation Skills**
   100% Oral
5. **Word Power & English for Competitive Exams**
   Different types of objective questions such as match-the-following, mcq, fill-in-the-blanks, rewrite-the-following…
6. **Creative Writing**
   Questions on application and creativity can be asked.
7. **National Literatures**
   i. Annotations from poetry & drama with three specific questions: 4/7x5 (1+2+2) = 20
   ii. Short answer questions from Prose & fiction 10x2 = 20
   iii. Paragraph 4/7x5=20
   iv. Essay 4/7x10=40

Internal and External Examiners are expected to set both objective and descriptive questions that test students' knowledge, comprehension, application, analysis, evaluation, and creativity.

DEPARTMENT OF MATHEMATICS

Program for B.Sc. Degree in Mathematics - CBCS -2015-16

Sem	Part	Course Code	Course Title	Hr/ wk	Cr.	Marks
1	I	XXX xxxx	TAM/FRE/HIN	3	2	30
1	II	ENG 1201	Conversational Skills	3	2	30
1	III M	MAT 1511	Classical Algebra	5	5	75
1	III M	MAT 1411	Analytical Geometry -3D	4	4	60
1	III M	MAT 1413	Differential Calculus	4	4	60
1	III S	MAT 1421	Programming in C	5	4	60
1	IV LS	XXX xxxx	Life Skill - I	3	2	30
1	IV NME	XXX xxxx	Non-major Elective - I	3	2	30
			Total	**30**	**25**	**375**
2	I	XXX xxxx	TAM/FRE/HIN	3	2	30
2	II	ENG 1202	Reading & Writing Skills	3	2	30
2	III M	MAT 1512	Algebra- I	5	5	75
2	III M	MAT 1412	Analysis -I	4	4	60
2	III M	MAT 1414	Integral Calculus	4	4	60
2	III S	MAT 1422	Objected Oriented Programming in C++	5	4	60
2	IV LS	XXX xxxx	Life Skill - II	3	2	30
2	IV NME	XXX xxxx	Non-major Elective - II	3	2	30
2	V	XXX xxxx	Ext. Activity NCA/NCN/NSS/PED/SLP		1	15
			Total	**30**	**26**	**390**
3	I	XXX xxxx	TAM/FRE/HIN	3	2	30
3	II	ENG 2201	Study Skills	3	2	30
3	III M	MAT 2511	Algebra -II	5	5	75
3	III M	MAT 2513	Analysis -II	5	5	75
3	III M	MAT 2515	Differential Equations	5	5	75
3	III M	MAT 2411	Statistics- I	4	4	60
3	III S	PHY xxxx	Physics for Mathematics- I	5	4	60
			Total	**30**	**27**	**405**
4	I	XXX xxxx	TAM/FRE/HIN	3	2	30
4	II	ENG 2202	Career Skills	3	2	30
4	III M	MAT2512	Algebra- III	5	5	75
4	III M	MAT 2514	Analysis- III	5	5	75
4	III M	MAT 2516	Vector Calculus & Trigonometry	5	5	75
4	III M	MAT 2412	Statistics- II	4	4	60
4	III S	PHY xxxx	Physics for Mathematics- II	5	4	60
4	V	XXX xxxx	Ext. Activity NCA/NCN/NSS/PED/SLP		1	15
			Total	**30**	**28**	**420**

Sem	Part	Course Code	Course Title	Hr/ wk	Cr.	Marks
5	III M	MAT 3611	Mechanics	6	6	90
5	III M	MAT 3613	Graph Theory	6	6	90
5	III M	MAT 3615	Operations Research- I	6	6	90
5	III M	MAT 3511	Combinatorics	5	5	75
5	IV LS	XXX xxxx	Life Skill- III	3	2	30
5	IV	MAT 3200	Environmental Studies	4	2	30
			Total	**30**	**27**	**405**
6	III M	MAT 3612	Number Theory	6	6	90
6	III M	MAT 3614	Complex Analysis	6	6	90
6	III M	MAT 3616	Fuzzy Mathematics	6	6	90
6	III M	MAT 3512	Operations Research- II	5	5	75
6	IV LS	XXX xxxx	Life Skill - IV	3	2	30
6	IV	VAL xxxx	Value Education	4	2	30
			Total	**30**	**27**	**405**

Courses offered to Non-major students by the Department of Mathematics (UG)

Supportive

Sem	Part	Course Code	Course Title	Hr/wk	Cr.	Marks
1	III S	MAT 1431	Maths for Physics- I	5	4	60
1	III S	MAT1433	Maths for Economics (ECE & ECO)	5	4	60
2	III S	MAT 1432	Maths for Physics- II	5	4	60
2	III S	MAT 1434	Fundamentals of Computer Applications(ECE &ECO)	5	4	60
3	III S	MAT 2431	Maths for Chemistry- I	5	4	60
3	III S	MAT 2433	Business Statistics (COM)	5	4	60
4	III S	MAT 2432	Maths for Chemistry- II	5	4	60
4	III S	MAT 2434	Business Mathematics (COM)	5	4	60

Non-Major Elective

Sem	Part	Course Code	Course Title	Hr/wk	Cr.	Marks
1	IV	MAT1221	Arithmetic & Mathematical Logic	3	2	30
2	IV	MAT 1222	Recreational Mathematics	3	2	30

Life Skill Courses

Sem	Part	Course Code	Course Title	Hr/wk	Cr.	Marks
1	IV	MAT 1231	Mathematics for Life	3	2	30
2	IV	MAT 1232	Mathematical Reasoning	3	2	30
5	IV	MAT 3231	Mathematics for Competitive Exam.	3	2	30
6	IV	MAT 3232	Developing Quantitative Aptitude	3	2	30

MAT1511 **CLASSICAL ALGEBRA** **5HRS**

Objective: This is a foundational course for any student aspiring to complete B.Sc., degree in Mathematics. The students are introduced to the different methods of solving polynomials with real coefficients. The second section is devoted to the relation between arithmetic mean, geometric mean and harmonic mean and their subsequent applications. The third section deals with the elementary properties of matrices and their uses in solving simultaneous linear equations. The binomial, exponential and logarithmic series are introduced and is used to find out the approximate values of certain rational indices.

Unit 1: Theory of Equations: – Relation between roots and coefficients – Symmetric functions of roots – Formation of equation – Transformation of equation.

Unit 2: Reciprocal equation – Descartes' rule of signs – Diminishing and Increasing the roots – Newton's method of divisors – Horner's method.

Unit 3: Inequalities: – A.M., G.M. , H.M. and applications – Cauchy Schwartz inequality – Weierstrass inequality – Applications to maxima and minima.

Unit 4: Binomial, Exponential and Logarithmic series – Approximations.

Unit 5: Types of Matrices – Elementary transformations – Inverse of a matrix and Rank of matrix using elementary transformations – Solution of simultaneous linear equations – Eigen values and Eigen vectors - Cayley Hamilton theorem –Diagonalization.

References:

1. T.K. Manickavachagam Pillay, T. Natarajan and K.S. Ganapathy,Algebra Vol I and II, S.Viswanathan Pvt. Ltd., 2013.
2. S. Arumugam, A. Thangapandian Isaac, Theory of Equations, New Gamma Publishing House, 1996.
3. M.L. Khanna, Matrices, S.Chand and Co., 1998.

MAT 1411 **ANALYTICAL GEOMETRY-3D** **4HRS**

Objective: This is a foundational course for any student aspiring to complete B.Sc., degree in Mathematics. Analytical geometry is a conventional mathematics course which deals with geometrical objects in their analytical form. The first two units are entirely devoted for understanding objects such as planes and lines in three dimensions. The coplanarity of two straight lines or they being skew lines is dealt. The analytical form of a sphere, cone and cylinder are introduced.

Unit 1: Analytical Geometry 3D-rectangular Cartesian co-ordinates - D.r, and D.c's- Angle between the planes- Equation of a plane through the line of intersection of two given planes- Length of the perpendicular- Equation of the planes bisecting the angle between the planes.

Unit 2: Straight lines-Symmetrical form of equation of the lines- Equation of straight line passing through two given points.

Unit 3: Plane and the straight line- Coplanarity of straight lines- Shortest distance between two given lines-Intersection of three planes- Volume of a tetrahedron.

Unit 4: Standard equation of sphere-Results based on the properties of a sphere-Tangent plane to a sphere- Equation of a circle- Introduction to cone and cylinder.

References:

1. T.K. Manicavachagom pillay and T.Natarajan , Analytical Geometry Part II 3D, S.Viswanathan Pvt., Ltd.,2006
2. P. Durai Pandian, Analytical Geometry , Asia Publishing House, 1968
3. S.Arumugam and A.Thangapandian Isaac, Analytical Geometry, New Gamma Publishing house, 1996.
4. M.L. Khanna, , Solid Geometry, Jai prakashnath & Co Publishers ,Meerut, 1999.

MAT1413 DIFFERENTIAL CALCULUS 4HRS

Objective: This is a foundational course for any student aspiring to complete B.Sc., degree in Mathematics. The calculus is the science of determining the effect of very small change. Different methods of calculating the derivative of a function and the interpretation of derivative at different circumstances are dealt in detail. The functions involving more than one variable and the rate of change with respect to one variable are attributed as partial derivative. The application of partial derivatives as a tool for engineers, scientists and social scientists are illustrated.

Unit 1: Differentiation – Standard form – Function of function rule – Hyperbolic function – Inverse function – Substitution - Logarithmic function – Transformation – Implicit function – one function with respect to other function.

Unit 2: Successive differentiation, n^{th} derivations – Leibnitz formula for n^{th} derivative of a product.

Unit 3: Interpretation of derivatives - Tangent and Normals – Maxima and Minima of single variable -Envelope – Curvature – Center of curvature – Radius of curvature – Evolute and Involute.

Unit 4: Partial differentiation – Errors and approximation – Maxima and Minima for functions of two or more variables.

References:

1. S.Narayanan and T.K.Manickavachagom Pillay, Calculus Vol I and II, Viswanathan Pvt Ltd, 2013.
2. S.Arumugam and A.Thangapandian Isaac, Calculus Vol I and II, New Gamma Publishing House, 2013.

MAT1512 **ALGEBRA - I** **5HRS**

Objective: This is a basic course for any student aspiring to complete B.Sc., degree in Mathematics. The essence of mathematical logics and its ramifications in the study of mathematics is introduced. Basic properties of sets which are needed for the study of algebra are introduced. The students are exposed to the basic algebraic structure called group. Subsequently the properties of groups and imbedding a group in a bigger group called the group of symmetries are dealt with. The algebraic equivalence of any two groups are studied by means of isomorphism.

Unit 1: Statement- Negation – Disjunction – Statement formulas and truth tables – Conditional and Bi-conditional – Tautologies – Equivalence of formulas – Normal forms – Theory of inference and predicate calculus.

Unit 2: Introduction to set theory – Cartesian products – Relations – Properties of binary relations – Partition and covering of a set – Equivalence relations – Compatibility relation – Partial ordering – Functions – Peano axioms and mathematical induction.

Unit 3: Equivalent definitions of a group – Permutation groups – Cyclic group – Cosets – Lagrange's theorem.

Unit 4: Normal subgroup – Quotient group – Cayley's theorem.

Unit 5: Homomorphism – Isomorphism – Automorphism – Inner Automorphism – Fundamental theorems of homomorphism.

References:

1. Tremblay J.P, Manohar R, Discrete Mathematical Structure with applications to Computer science, Tata McGraw – Hill, 1997.
2. S.Arumugam and A.Thangapandian Isaac, Modern Algebra, SCITECH publications, 2006.
3. Vijay K. Khanna and S.K. Bhambri, A course in Abstract Algebra, Vikas Publishing House Pvt. LTd.,1998
4. Joseph A. Gallian, Contemporary Abstract Algebra,8th Edition, Brooks/Cole Cengage Learning, 2013.
5. Rao, Abstract Algebra,Vijay Nicole, 2012.

MAT1412 **ANALYSIS - I** **4HRS**

Objective: This is a basic course for any student aspiring to complete B.Sc., degree in Mathematics. The set of all real numbers is looked at as a linear continuum. Sequence of real numbers which has a property of becoming clustered after a finite stage is looked at as converging sequence. The algebra of such converging sequences is studied in detail. The sequences which do not have this property are categorized as either divergent sequence or oscillating sequence. The inter relation between these sequences are studied at length. Summation of infinite number of real numbers as a limit of a sequence of partial sums is introduced as converging series. The different criteria for checking whether a series is convergent are introduced.

Unit 1: The algebraic and order properties of R- Supremum and Infimum- Completeness property of R- Archimedean property-Characterization of intervals-Countable sets-Uncountable sets.

Unit 2: Sequences- Limit of a sequence- Convergent sequences- Divergent sequences-Bounded sequences- Monotone sequences- Operations on convergent sequences-Operations on divergent sequences.

Unit 3: Cauchy sequences-Bolzano –Weierstrass theorem-Limit superior- Limit inferior.

Unit 4: Definition of infinite series-Sequence of partial sums- Convergence and Divergence-series with negative terms- Alternating series- Leibniz test-Conditional convergence and Absolute convergence- Test of convergence-Comparison test- Ratio test- Root test- Series whose terms form a non-increasing sequence.

References:

1. Richard R.Goldberg, Methods of Real Analysis, oxford &IBH publishing co.Pvt.Ltd., New Delhi, 2010.
2. R.G.Bartle and D.R.Sherbert, Introduction to Real Analysis, John Wiley and Sons(Asia)Pvt. Ltd., Singapore, 2002.
3. K.A.Ross, Elementary Analysis: The Theory of Calculus, Undergraduate Texts in Mathematics, Springer(SIE), Indian reprint, 2004.
4. J.M. Howie ,Real Analysis, Springer 2007.
5. Ghorpade and Limaye , A Course in Calculus and Real Analysis, Springer,2006.
6. J.V. Deshpande, Mathematical Analysis and Applications, Alpha Science International,2004.

MAT1414 **INTEGRAL CALCULUS** **4HRS**

Objective: This is a foundational course for any student aspiring to complete B.Sc., degree in Mathematics. The concept of integration as a limit of summation is introduced. The different methods of integration are dealt with. The applications of integration in physical sciences, biological sciences and social sciences are discussed. The Beta and Gamma functions in terms of integration are introduced and their properties are studied in detail.

Unit 1: Integration – Standard Methods – Bernoulli's formula-Definite integral.

Unit 2: Reduction formula – Integration as summation – Area – Volume – Length of the curve.

Unit 3: Evaluation of double and triple integrals – Changing the order of integration – Change of variables– Application in double and triple integrals.

Unit 4: Beta and Gamma functions – Recurrence formula for Gamma functions – Properties of Beta functions – Relation between Beta and Gamma functions.

References:

1. S.Narayanan and T.K.Manickavachagom Pillay, Calculus Vol I and II, Viswanathan Pvt Ltd, 2002.
2. S.Arumugam and A.Thangapandian Isaac, Calculus Vol I and II, New Gamma Publishing House, 2001.

MAT1421 PROGRAMMING IN C 5HRS

Objective: This is a supportive course for all students aspiring to complete B.Sc., degree in Mathematics. This course introduces the syntax of the programming in C and develops the skills in writing programs. Students are encouraged to write programs in C related to the problems they encounter in day-to-day life and validate in the computer lab.

Unit 1: Introduction to C- History- Identifiers- Keywords- Variables-Operators and Expressions- Data types- Arithmetic expressions- Input and Output statements.

Unit 2: Control statements- Looping statements- Arrays- Strings - Functions- Call by values- Call by reference-Recursion-String functions.

Unit 3: User defined data types- Structures and Unions- Introduction to pointers- Passing on address to a function- Function returning pointers- Pointer and arrays- Passing an array element to a function.

Unit 4: Pointers and strings- Standard library functions- Array of pointers to string- Limitations of array of pointers- Pointers and Structures- Array of structures- Structure pointers.

Unit 5: Dynamic memory allocation- Introduction to files.

References:

1. LesHanCock, Morris Kringer, C Primer, McGrawHill, 1997.
2. Y. Kanetkar, Understanding Pointers in C, 4th Edition, BPB publications, New Delhi, 2002
3. D. M. Ritchie, The C programming language, Prentice Hall of India, 1977.
4. C. Gottfried, Programming in C, Schaum outline series, 1996.
5. E. Balagurusamy, Programming in C, Tata Mc GrawHill, 1999.
6. P.Pandiyaraja, Programming in C, Vijay Nicole Imprint Private Limited, 2005.

MAT1422 OBJECT ORIENTED PROGRAMMING WITH C++ 5HRS

Objective: This is a supportive course for all students aspiring to complete B.Sc., degree in Mathematics. This course introduces the object oriented programming structure in C++ and develops the skills in writing programs. Students are encouraged to write programs in C++ related to the problems they encounter in day-to-day life and validate in the computer lab.

Unit 1: Principles of OOP-Objects- Classes- Inheritance- Reusability- Polymorphism and Overloading- Tokens- Expressions- Conditional statements- Looping statements- Console I/O.

Unit 2: Functions in C++ - Function prototyping- Call by reference- Return by reference- Default arguments- Constant arguments- Function overloading- Inline and Friend function.

Unit 3: Classes and objects-Specifying a class-Defining member functions- Nesting of member functions- Private member functions- Private member functions- Array with a class- Static member functions- Array of objects- Constructor and Destructors.

Unit 4: Operator overloading-Overloading function- Overloading unary operators using member and friend functions- Overloading binary operators using member and friend functions.

Unit 5: Type conversion- Inheritance: levels of inheritance- Multiple inheritance- Multilevel inheritance- Hierarchical inheritance, Hybrid inheritance- Virtual base classes-Introduction to files.

References:

1. E. Balagurusamy, Object Oriented Programming with C++, Tata Mc GrawHill, 2003.
2. H. Schildt, C++ complete reference, MC Graw Hill, 1995.
3. R. Rajaram, Object Oriented Programming and C++, New age international publishers, New Delhi, 1998.
4. A.Chandra Babu & T. Joshuva Devadass, Programming with C++, Narosha Publishing House Ltd., 2008.
5. P. Pandiyaraja, Object Oriented Programming with C++, S.Viswanathan Pvt.,Ltd., 2008.

NON-MAJOR

MAT1221 ARITHMETIC AND MATHEMATICAL LOGIC 3HRS

Objective: The course is intended for the students who are not majoring in mathematics as a non-major elective. It develops logical skills and arithmetic ability. The basic algebraic concepts including the principle of mathematical induction are introduced. The basic structure in mathematics called set is introduced by means of real life examples. The idea of truth table and its consequence in resolving situations in which the truth value is either true or false is studied at length.

Unit 1: Odd man out series –Percentage - Profit and Loss -Discount – Data interpretation- Mean – Median – Mode.

Unit 2: Set – Operations on set – Algebra of Sets – Relation – Finite and infinite set – Principle of mathematical induction.

Unit 3: Truth tables – Disjunction – Conjunction – Implication – Laws of Logic – Tautology – Contradiction – Conjunctive and Disjunctive normal forms.

References:

1. R.S Aggarwal, Quantitative Aptitude, S.chand & CompanyLtd, 2014.
2. R.S. Stoll, Set Theory & Logic, Eureka Publishing House, 1997.
3. J.P Trembly & R. Manohar, Discrete Mathematical Structures with application to computer science, Tata McGraw Hill, 2011.
4. M.K Venkataraman, Discrete Mathematics, The National Publishing Company,2000.
5. Seymour Lipschutz, Schaum'sTheory and problems of set theory, McGraw-Hill,1964.

MAT1222 **RECREATIONAL MATHEMATICS** **3HRS**

Objective: The course is intended for the students who are not majoring in mathematics as a non-major elective. Mathematics is called the Queen of sciences. It is sometimes perceived as incomprehensible. Mathematics can be fun is the theme of this course. This course enables the students to appreciate the recreational value in mathematics through interesting games, fallacies and paradoxes.

Unit 1: Magic squares- Definition – History – Creation of magic square – Odd order (2m+1) – Single even order (2(2m+1)) – Double even order(4m) – Ramanujan date magic square.

Unit 2: Fallacies – Paradoxes – Divisibility rules.

Unit 3: Combinatorics- Rule of sum – Rule of product – Combination – Permutations – Basic level problems – Recurrence relations – Tower of Hanoi problem - Fibonacci numbers – Related results.

References:

1. Rouse ball, H.S.M. Coxter, Mathematical Recreations and essays 13th edition, Dover publication 2003.
2. Jagadguru swami sri bharathi krisna tirthaji maharaja, Vedic Mathematics, Banarsidass publishers, Delhi 2006.
3. V.K. Balakrishnan, Schaum's outline of combinatorics, Tata McGraw-Hill Publishing Company Limited, Delhi1995.
4. A.W.Tucker, Applied Combinatorics, John and Sons Wiley, 2000.
5. D.Cohen, Combinatorics , Wiley, 1978.
6. E.A.Maxwell, Fallacies in Mathematics, Cambridge University Press, 1969.

LIFESKILL

MAT1231 **MATHEMATICS FOR LIFE** **3HRS**

Objective: The course is introduced to all the first year students as a life skill course. The course aims at enabling the students to acquire mathematical knowledge for technical proficiency. This course attempts to show what mathematics is, how it has developed from man's efforts to understand and model nature, how the mathematical approach to real problem can be accomplished, to what extent mathematics has modeled on civilization and culture. The topics covered in this course are history of calendar, puzzles, moon, sun and Mathematical models in nature.

Unit 1: History and types of calendar- Various number bases subsist in the history- Number puzzles and Logical puzzles.

Unit 2: Speed arithmetic-Complementation rule - Product near the base 10^k - Division-Square root- Fibonacci sequence in nature- Konigsberg bridge problem- Jordan curve-Planarity-Map coloring.

Unit 3: Synodic month, Sidereal month, Relation between synodic and sidereal month- Elongation of Moon- Phase formula- Lunar eclipse- Types and condition for its occurrence- Partial and total Solar eclipse- Condition for the occurrence of solar eclipse.

References:

1. J. T. Glover, Vedic Mathematics, Mothilal Banarsidass publishers, 1995.
2. P. Galbraith, W. Blurn, G. Booker and Ian D. Hurtles, Mathematical models, Harwood publisher, chichester 1993.
3. Kumaravel and Mrs. Kumaravel, Astronomy, Shri Vishnu arts, Sivakasi, 2004.
4. Arthur berry, Astronomy, Dover publication, 1991.
5. George J. Summer, The great book of puzzles and teasers, Jaico publishing house1999.
6. John Clarke & Derek Allan Holton, A first look at Graph Theory, World Scientific Publishing Co. Ltd., 1995.

MAT1232 **MATHEMATICAL REASONING** **3HRS**

Objective: The course is introduced to all the first year students as a life skill course. This course aims at developing logical thinking and mathematical reasoning. The science of coding and decoding is a hallmark in this era of communication and networking. The course enables the students to understand this process and ultimately enables them to crack the unknown. A logical deduction is an important tool for any sequential programming which is an essence of the present electronic era. The course will enable the students to crack any problem that involves logical deduction by several methods like cause and effect reasoning.

Unit 1: Blood relation- Deciphering jumbled up descriptions, Relation puzzle and coded relations-Coding and Decoding- Letter decoding, Direct letter coding, Number/symbol coding- Matrix coding- Substitution- Deciphering message word codes- Deciphering number and symbol codes for messages- Jumbled coding.

Unit 2: Puzzle test: Classification type- Seating/placing arrangements-Comparison type- Sequential order of things- Selection based on given conditions-Family based puzzles.

Unit 3: Logical deduction- Arguments- Assumptions- Courses of Actions- Conclusions- Deriving conclusions from passages- Theme deduction - Cause and effect reasoning.

References:

1. R.S.Aggarwal, A Modern Approach to verbal & non-verbal reasoning, S.chand & company Ltd., 2006.
2. R.S.Aggarwal, A Modern Approach to verbal reasoning, S.chand & company Ltd., 2006.
3. R.S.Aggarwal, A Modern Approach to non-verbal reasoning, S.chand & company Ltd.,2006.
4. R.S.Aggarwal, A Modern Approach to logical reasoning, S.chand & company Ltd., 2006.

Proposed Exam pattern for the course MAT1232

Part A: 60x1/2=30

Part B: (6/9)x5=30

Proposed Exam Pattern for Lifeskill and NME courses(except MAT1232)

Part A: 10x2=20

Part B: (8/12)x5=40

DEPARTMENT OF UNDER GRADUATE PHYSICS
THE AMERICAN COLLEGE, MADURAI

B. Sc. PHYSICS PROGRAMME

PROGRAMME OBJECTIVE

- To provide education in physics with globally competent standard at under graduate level;
- To produce graduate of the caliber sought by industry, the professions, and the public service, as well as providing academic teachers and researchers of the future;
- To provide an intellectually stimulating environment in which students have the opportunity to develop their skills and enthusiasm to the best of their potential;
- To attain a common level in basic physics, and secure foundation in physics for their future courses;
- To develop their experimental and data analysis skills through a wide range of experiments in the practical laboratories;

Learning Outcomes:

By the end of the **first semester**, students should have:

- attained a common level in basic physics of motion, and so laid a secure foundation in physics for their future courses;
- acquired a broad introduction to a range of techniques of energy physics;
- developed their experimental and data analysis skills through a wide range of basic experiments

By the end of the **second semester**, students should have:

- been introduced the fundamentals of geometrical and physical optics;
- acquired a broad introduction to a wide range of electrodynamic principles;
- further developed their experimental skills through a series of basic experiments.

By the end of the **third semester**, students should have:

- covered a wide range of topics in Analog electronics, with emphasis upon their practical applications and utility;
- become familiar with additional relevant mathematical techniques with emphasize on applications of physics;
- further developed their practical skills through a series of experiments, with Aims and Objectives which illustrate major themes of the lecture courses.

By the end of the **fourth semester**, students should have:

- covered a wide range of topics in digital electronics, with emphasis upon their practical applications and utility;
- been introduced to powerful tools for tackling a wide range of topics, including formal methods in classical and quantum physics;
- further developed their practical skills through a series of experiments on analog electronics.

By the end of the **fifth semester**, students should have:

- developed their understanding of fundamentals of thermodynamics, statistical physics and solid state physics;

- completed special courses designed to increase their understanding of the wide applicability of physics;
- further developed their practical skills through a series of experiments on digital electronics.

By the end of the **sixth semester**, students should have:

- had experience of a number of broad areas of atomic and nuclear physics, astronomy and astrophysics;
- covered a wide range of topics in communication systems, with emphasis upon their practical applications and utility;
- had experience of independent work including an introduction to aspects of research and substantially developed their communication skills through group activities.

DEPARTMENT OF UNDER GRADUATE PHYSICS
B. Sc. – Physics Programme
(w. e. f. 2015-16 batch onwards)

Semester	Part	Course No.	Course Title	Hours	Credits	Marks	Equivalent Course
I	I	TAM / HIN / FRE 12XX		3	2	30	
	II	ENG 1201	Conversational Skills	3	2	30	
	IIIC	PHY1371	Physics Lab - I	3	3	45	
	IIIC	PHY1551	Physics of Motion	5	5	75	
	IIIC	PHY1553	Energy Physics	5	5	75	
	IIIS	MAT14XX		5	4	60	
	IVE	TAM12XX / NME12XX	Basic Tamil / Advance Tamil / Non-Major	3	2	30	
	IVLS	LSC12XX	Life Skill Course - I	3	2	30	
	V	NCA / NCN / NSS / PED / SLP 11XX					
			Total	**30**	**25**		
II	I	TAM / HIN / FRE 12XX		3	2	30	
	II	ENG1202	Reading & Writing Skills	3	2	30	
	IIIC	PHY1372	Physics Lab - II	3	3	45	
	IIIC	PHY1552	Geometrical & Physical Optics	5	5	75	
	IIIC	PHY1554	Electrodynamics	5	5	75	
	IIIS	MAT14XX		5	4	60	
	IVE	TAM12XX / NME12XX	Basic Tamil / Advance Tamil / Non-Major	3	2	30	
	IVLS	LSC12XX	Life Skill Course - II	3	2	30	
	V	NCA / NCN / NSS / PED / SLP 11XX			1		
			Total	**30**	**25+1**		
III	I	TAM / HIN / FRE 22XX		3	2	30	
	II	ENG2201	Study Skills	3	2	30	
	IIIC	PHY2671	Physics Lab - III	6	6	90	
	IIIC	PHY2573	Analog Electronics	5	5	75	
	IIIC	PHY2475	Mathematical Physics	4	4	60	
	IIIC	PHY2477	Modern Optics	4	4	60	
	IIIS	CHE24XX		5	4	60	
	V	NCA / NCN / NSS / PED / SLP 21XX					
			Total	**30**	**27**		
IV	I	TAM / HIN / FRE 22XX		3	2	30	
	II	ENG2202	Career Skills	3	2	30	
	IIIC	PHY2672	Physics Lab - IV	6	6	90	
	IIIC	PHY2574	Digital Electronics	5	5	75	
	IIIC	PHY2476	Classical Mechanics	4	4	60	
	IIIC	PHY2478	Quantum Mechanics & Relativity	4	4	60	
	IIIS	CHE24XX		5	4	60	
	V	NCA / NCN / NSS / PED / SLP 21XX			1		
			Total	**30**	**27+1**		

Semester	Part	Course No.	Course Title	Hours	Credits	Marks	Equivalent Course
V	IIIC	PHY3671	Physics Lab - V	6	6	90	
	IIIC	PHY3573	Thermodynamics & Statistical Physics	5	5	75	
	IIIC	PHY3475	Solid State Physics	4	4	60	
	IIIC	PHY3477	Microprocessor	4	4	60	
	IIIC	PHY3479	Experimental Techniques	4	4	60	
	IVLS	LSC32XX	Life Skill Course - III	3	2	30	
	IV	PHY 3200	Environment and Physics	4	2	30	
			Total	**30**	**27**		
VI	IIIC	PHY3672	Physics Project	6	6	90	
	IIIC	PHY3574	Atomic Physics & Spectroscopy	5	5	75	
	IIIC	PHY3476	Nuclear Physics	4	4	60	
	IIIC	PHY3478	Communication Systems	4	4	60	
	IIIC	PHY3480	Astronomy & Astrophysics	4	4	60	
	IVLS	LSC32XX	Life Skill Course - IV	3	2	30	
	IV	VAL32XX	Value Education	4	2	30	
			Total	**30**	**27**		

Part III Supportive Courses offered to Non-Major Students:

Semester	Course No.	Course Title	Hours	Credits	Marks	Equivalent Course
I	PHY1381 PHY1101	Physics for Chemists – I Physics Lab for Chemists - I	3 2	3 1	45 15	
II	PHY1382 PHY1102	Physics for Chemists - II Physics Lab for Chemists - II	3 2	3 1	45 15	
III	PHY2381 PHY2101	Physics for Mathematics - I Physics Lab for Mathematics - I	3 2	3 1	45 15	
IV	PHY2382 PHY2102	Physics for Mathematics – II Physics Lab for Mathematics - II	3 2	3 1	45 15	
		Total	**20**	**16**		

Part IVLS Life-Skill Courses:

Semester	Course No.	Course Title	Hours	Credits	Marks	Equivalent Course
I	PHY1291	Handling of Tools & Machines	3	2	30	
II	PHY1292 / PHY1294	Physics of Music / Photography & Digital Editing	3	2	30	
V	PHY3291 / PHY3293	PC Management & Maintenance / Medical Instrumentation	3	2	30	
VI	PHY3292 / PHY3294	Alternate Energy Resources / Consumer Electronics	3	2	30	
		Total	**12**	**8**		

Part IVE Non-Major Elective Courses:

Semester	Course No.	Course Title	Hours	Credits	Marks	Equivalent Course
I	PHY1201	Basic Electricity &Electronics	3	2	30	
II	PHY1202	Wonders of Sky	3	2	30	
		Total	**6**	**4**		

ASSESSMENT PROCEDURE

THEORY COURSES

CONTINUOUS ASSESMENTS - 50% AND END – OF –SEMESTER EXAM - 50%

CONTINUOUS ASSESMENTS

CONSIST OF TWO TESTS, ANY NUMBER OF QUIZES AND ASSIGNMENTS BUT NOT LESS THAN TWO EACH, EVENLY DISTRIBUTED OVER THE PERIOD OF SEMESTER. MARK DISTRIBUTION IS T1 30 + T2 30 + Q 20 + A 20 = 100.

PRACTICAL COURSES

CONTINUOUS ASSESMENTS - 75% AND END – OF –SEMESTER EXAM - 25%

EACH PRACTICAL SESSIONS HAS TO BE ASSESED FOR 10 MARKS AND IT CONSOLIDATES INTO CONTINUOUS ASSESMENTS.

END-OF-SEMESTER INTERNAL PRACTICAL TEST HAS TO BE CONDUCTED FOR 25 MARKS.

END – OF –SEMESTER EXAM

CORE – THEORY COURSES

QUESTION PAPER SHALL CONSIST OF THREE PARTS:

PART – A CONSISTS OF TEN QUESTIONS OF **OBJECTIVE TYPE**, TWO QUESTIONS FROM EACH UNIT OF THE SYLLABUS. EACH QUESTION CARRIES TWO MARKS, TOTAL **20 MARKS**.

PART – B CONSISTS OF FIVE QUESTIONS OF **DESCRIPTIVE TYPE** WITH INTERNAL CHOICE (i.e. EITHER OR), ONE QUESTION FROM EACH UNIT OF THE SYLLABUS.EACH QUESTION CARRIES TEN MARKS, TOTAL **50 MARKS**.

PART – C CONSISTS OF FIVE QUESTIONS OF **PROBLEM-SOLVING / SKILL-BASED / CASE-STUDY TYPE**, ONE QUESTION FROM EACH UNIT OF THE SYLLABUS. ANY THREE HAS TO BE ANSWERED.EACH QUESTION CARRIES TEN MARKS, TOTAL **30 MARKS**.

SUPPORTIVE – THEORY COURSES

QUESTION PAPER SHALL CONSIST OF THREE PARTS:

PART – A CONSISTS OF FIVE QUESTIONS OF **OBJECTIVE TYPE**, ATLEAST ONE NOT MORE THAN TWO QUESTIONSFROM EACH UNIT OF THE SYLLABUS. EACH QUESTION CARRIES TWO MARKS, TOTAL **10 MARKS**.

PART – B CONSISTS OF THREE QUESTIONS OF **DESCRIPTIVE TYPE** WITH INTERNAL CHOICE (i.e. EITHER OR), ONE QUESTION FROM EACH UNIT OF THE SYLLABUS. EACH QUESTION CARRIES TEN MARKS, TOTAL **30 MARKS**.

PART – C CONSISTS OF THREE QUESTIONS OF **PROBLEM-SOLVING / SKILL-BASED / CASE-STUDY TYPE**, ONE QUESTION FROM EACH UNIT OF THE SYLLABUS. ANY TWO HAS TO BE ANSWERED. EACH QUESTION CARRIES TEN MARKS, TOTAL **20 MARKS**.

NON-MAJOR ELECTIVE & LIFE SKILL COURSES
QUESTION PAPER SHALL CONSIST OF TWO PARTS:

PART – A CONSISTS OF 12 QUESTIONS OF **OBJECTIVE TYPE**, FOUR QUESTIONS FROM EACH UNIT OF THE SYLLABUS.ANY TEN HAS TO BE ANSWERED. EACH QUESTION CARRIES TWO MARKS, TOTAL **20 MARKS.**

PART – B CONSISTS OF SIX QUESTIONS OF **DESCRIPTIVE TYPE**, TWO QUESTIONS FROM EACH UNIT OF THE SYLLABUS. ANY FOUR HAS TO BE ANSWERED. EACH QUESTION CARRIES TEN MARKS, TOTAL **40 MARKS.**

PART III CORE SUBJECTS

PHY 1551 PHYSICS OF MOTION 5 Credits 5 hrs/wk

Course Objectives:

Enable the students

- to comprehend the physics of 2D motion;
- to understand the rotational motion of matter;
- to learn and understand the fluid dynamic principles;
- to comprehend and apply the oscillatory motion;
- to learn and understand the motion of waves in elastic media

Unit I Linear Motion

Force and Newton's laws - weight and mass - motion in three dimensions - projectile motion, uniform circular motion - types of forces. Momentum - conservation of momentum, two-body collisions, one-dimensional collisions in centre of mass frame of reference, two particle systems, many particle systems, conservation of momentum in a system of particles

Unit II Rotational Motion

Rotational kinematics – variables - rotation with constant acceleration - relationship with linear and angular variables – torque - angular momentum of particles - conservation of angular momentum - spinning top - Work and energy, power, kinetic energy and work-energy theorem and proof.

Unit III Fluid Dynamics

Pressure and density in a fluid, variation of pressure in atmosphere, Pascals and Archimedes' principle, measurement of pressure, surface tension, fluid flow, equation of continuity, Bernoulli's equation and its applications, Venturi meter, Pitot tube

Unit IV Oscillations

Simple harmonic oscillations, Energy of simple harmonic motion, torsional oscillator, simple pendulum, physical pendulum, Waves and its types, traveling waves, sinusoidal waves, speed of a wave, Energy of a wave, principle of superposition, interference, standing waves and resonance.

Unit V Wave propagation in Elastic Media

Sound waves and its properties, travelling sound waves, speed of sound, power and intensity, interference, vibrating systems, beats, Doppler Effect.

Text:

Halliday, Resnick and Krane, *Physics Vol.I*, Vthedition, Wiley India, (2002)

Reference:

R. P. Feynman, R. B. Leighton, M. Sands, *Feynman lectures on physics*, Vol.I and II, Addison-Wesley (1963), Narosa Publishing (2008).

PHY 1553 ENERGY PHYSICS 5 Credits 5 hrs/wk

Course Objectives:

Enable the students

- to know the abundance of Solar radiation;
- to understand the principle of conversion solar energy into thermal conversion and electrical energy;
- to get exposed to various types of non-conventional energy sources;
- to know the methods of energy storage

Unit – I Energy Sources, Solar Radiations and its Measurements

Energy sources- Resources and availability - Energy consumption - renewable and nonrenewable energy systems - fossil fuel availability - merits and demerits – Applications - solar radiation geometry - solar constant - solar radiation measurements - Solar radiation data.

Unit – II Solar Energy Collectors and Cells

Flat plate collectors- working principles – collector efficiency and thermal losses- Evacuated tubular collectors- types of evacuated tube collector – working principle – thermal characteristics – concentrating collector – advantage and disadvantage over flat plate collector – Solar cell – working principle – types of solar cell – efficiency of solar cell(No derivation)

Unit – III Solar Electrical and Thermal Applications

Solar electrical applications – lighting applications – other electrical applications - Solar water heating systems - Solar dryers - Solar cooker - Solar still - Solar refrigeration - Solar thermal electric conversion (Low, Medium, High).

Uniy – IV Non - Conventional Energy Sources

Wind energy - type of wind mills - Total, Maximum power & forces on the blades - advantage and disadvantage - Open & Closed OTEC system - energy & power from waves single pool and modulated single pool tidal systems -Geothermal energy – vapour and liquid dominated systems - Advantages and disadvantages of Geothermal energy

Unit – V Energy Storage and Energy Conservation

Solar energy storage – thermal storage electrical storage – chemical storage – mechanical storage – storage of energy in solar pond and its extraction – principle of energy conservation – energy and their conservation.

Text Books:

1. **S.P. Sukhatme,** *Solar energy principles of thermal collection and storage,* II Ed. McGraw Hill Publications, New Delhi (2004).
2. **G. D. Rai,** *Solar Energy Utilizations,* Khanna Publication (1996).

REFERENCES

1. **G. N. Tiwari,** *Solar Energy, Fundamentals, Design, Modeling and Applications*, Narosa Publishing House, New Delhi (2004).
2. **G. D. Rai,** *Non-conventional sources of Energy* (IV Ed) –Khanna Publications, New Delhi (2004).

PHY 1371 PHYSICS LAB - I 3 Credits 3hrs/wk

Course Objectives:

Enable the students

- to have hands-on experience in the measurements;
- to record and process the measurements;
- to correlate with the respective theoretical concepts and;
- to draw non-trivial conclusions of the significance of the experiments;

S. No.	Experiment
1	Error Analysis (Simple pendulum & UV method)
2	Precise Linear Measurements (Screw Gauge & Vernier Calipers)
3	Usage of Travelling Microscope – Radius of the Capillary tube
4	Rigidity Modulus – Torsion Pendulum
5	Spectrometer – Refractive Index
6	Thermal Expansion (Light & Telescope) –Coefficient of Thermal Expansion
7	Compound Pendulum – 'g' and Radius of gyration
8	Sonometer – Verification of Laws
9	Newton's Law of Cooling – Specific heat capacity of liquid
10	Moment of Inertia – Fly Wheel

PHY 1552 GEOMETRICAL & PHYSICAL OPTICS 5 Credits 5 hrs/wk

Course Objectives:

Enable the students

- to learn and understand the Properties of lenses and principles of image formation;
- to comprehend the physics of aberrations and Optical instruments;
- to understand the interference phenomena of light;
- to comprehend and apply the diffraction of light;
- to learn and understand the effect of polarization

Unit – I Spherical Surfaces and Lenses

Properties of Light – Speed of Light – Laws of Reflection and Refraction – Graphical Construction for Refraction – Color Dispersion – Critical Angle and Total Reflection – Refraction by a Prism – Minimum Deviation – Focal Point and Focal Length – Image Formation – Conjugate Points and Planes – Gaussian Formula (Derivation) - Lateral Magnification – Virtual Images – Lens Makers' Formula – Thin Lens Combination – Thin Lenses in Contact – Thick Lens Formula – Nodal Point – Cardinal Points.

Unit – II Aberrations and Optical Instruments

Field Stop and Aperture Stop – Entrance and Exit Pupils – Ray Tracing Formula (Calculations) - First and Second Theory of Aberrations – Spherical Aberration – Coma – Astigmatism – Chromatic Aberration – Human Eye – Cameras and Photographic objectives –

Speed of Lenses – Magnifiers – Microscopes – Astronomical Telescopes – Huygens and Ramsden Eyepiece – Binoculars.

Unit – III Interference

Huygens' Principle – Young's Experiment – Interference from Double Source – Fresnel's Biprism – Lloyd's Mirror – Michelson Interferometer – Circular Fringes – Localized Fringes – White Light Fringes – Visibility of Fringes – Reflection from Plane Parallel Film – Newton's Rings – Fabry-Perot Interferometer – Brewster's Fringes.

Unit – IV Diffraction

Fresnel and Fraunhofer Diffraction – Diffraction by Single Slit – Rectangular and Circular Aperture – Resolving Power of Telescope and Microscope – Double Slit – Distinction Between Interference and Diffraction – Positions of the Maxima and Minima – Michelson's Stellar Interferometer – Diffraction Grating – Spectra by Grating – Resolving Power – Fresnel's Half-Period Zones – Zone Plate.

Unit – V Polarization

Polarization – Polarization by Reflection – Vibrations in Light - Polarization Angle and Brewster's Law – Law of Malus – Polarization by Dichromic Crystals – Double Refraction – Optic Axis – Nicol Prism – Blue Sky and Red Sunset - Polarization by Scattering – Elliptically and Circular Polarized Light – Quarter and Half-Wave Plates – Babinet Compensator – Analysis of Polarized Light.

Text Book:

F. A. Jenkins and **H. White**, Fundamentals of Optics, 4th Edition, McGraw Hill, International Editions, New Delhi (2011).
(Unit I:Ch 1 to 5; Unit II: Ch 7 to 10; Unit III: Ch 13 and 14; Unit IV: Ch 15 to 18; Unit V: Ch 24 and 27)

References:

1. **David Halliday, Robert Resnick and Kenneth S. Krane,** Physics Volume 2, Fifth Edition, John Wiley and Sons Inc., India (2012).
2. **Ajoy Ghatak,** Optics, 3rd Edition, Tata McGraw Hill Limited, New Delhi (2005).

PHY 1554 ELECTRODYNAMICS 5 Credits 5 hrs/wk

Course Objectives:

Enable the students

- to comprehend and apply the principles of electrostatics and Gauss law;
- to understand the Current electricity;
- to comprehend and apply the principles of electrodynamics;
- to learn and understand the magnetic induction and magnetic properties of matter;
- to learn and understand the phenomena of EM wave propagation

Unit – I Electrostatics

Electric charge – Coulomb's law – charge and matter – electric field – lines of force – calculation of electric field due to a dipole, ring of charge and line of charge – a point charge, a dipole in an electric field – Gauss's law and applications – electric potential - potential due to a point charge, a dipole, a group of charges – electric potential energy - calculations of electric field and electric potential.

Unit – II Electric Circuits

Capacitors and dielectrics – parallel plate capacitor with dielectric – dielectrics and Gauss's law – three electric vectors – energy storage in an electric field - Current and current density – resistance, resistivity, and conductivity – Ohm's law - energy transfers in an electric circuits – electromotive force – calculating current – potential differences – single-loop and multi-loop circuits – potentiometer – RC circuits.

Unit – III Electrodynamics

Magnetic field – Magnetic induction (B) – magnetic force on a current – torque on a current loop – Hall effect – circulating charges – cyclotron – Thomson experiment – Ampere's law – B near a long wire applications of Ampere's law – magnetic lines of induction – two parallel currents -B for a solenoid – Biot-Savart law.

Unit – IV Magnetic Induction & Magnetic Properties of Matter

Electromagnetic induction – motional emf - Faraday's law of induction – Lenz's law – time-varying magnetic fields - inductance – energy in magnetic fields – Betatron – induction and relative motion – magnetic properties of matter - magnetic dipoles – paramagnetism - diamagnetism – ferromagnetism – nuclear magnetism – three magnetic vectors.

Unit – V Electromagnetic waves

Electromagnetic oscillations – LC oscillations – analogy to simple harmonic motion - forced oscillations and resonance - electromagnetic cavity oscillator – displacement current – Maxwell's equations – Poynting vector - Maxwell's equations and cavity oscillations – transmission lines – coaxial cable – waveguide – radiation – traveling waves and Maxwell's equations.

Text:

Halliday, Resnick and Krane, *Physics Vol II*, Vth edition, John Wiley (2002)

Reference:

David J. Griffiths, *Introduction to Electrodynamics*, Prentice-Hall of India, New Delhi (2003)

PHY 1372 PHYSICS LAB - II 3 Credits 3 hrs/wk

Course Objectives:

Enable the students

- to have hands-on experience in the measurements
- to record and process the measurements
- to correlate with the respective theoretical concepts and
- to draw non-trivial conclusions of the significance of the experiments

S. No.	Experiment
1	Coefficient of Viscosity – Poiseuille's Method
2	Surface Tension – Capillary Rise
3	Young's Modulus - Uniform bending
4	Usage of Multimeter & CRO
5	Melde's Apparatus
6	Specific heat Capacity – Method of mixtures

7	Potentiometer – Measurement of resistance
8	Spectrometer – Grating
9	Spectrometer – (i-d) Curve
10	Lloyd's mirror

PART III Supportive Courses offered to Non-Major Students

PHY 1481 PHYSICS FOR CHEMISTS - I 3 Credits 3 hrs/wk

Course Objectives:

Enable the students

- to comprehend and apply the principles of thermodynamics;
- to understand the principles of spectroscopy and LASER;
- to learn and understand the basic principles of phenomenon of light ;

Unit – I Heat and Thermodynamics

Molecular properties of gases – The atomic nature of matter – A molecular view of pressure – Mean free path – Distribution of molecular speeds and molecular energies – Temperature and thermal equilibrium -Heat – First law of thermodynamics – Heat capacity and Specific heat – Heat capacity of an ideal gas – Applications of first law – Entropy – Second law of thermodynamics – Performance of engines and refrigerators – Efficiencies of real engines.

Unit – II LASERs and Spectroscopy

Nuclear atom – Electron orbits – Atomic Spectra – Bohr atom – Energy levels and Spectra – Atomic Excitation – Laser – Ruby laser – Helium Neon laser – Carbon dioxide laser - Molecules – Molecular bond – The H_2^+ molecular ion - The hydrogen molecule - Complex molecules – Rotational energy levels – Vibrational energy levels – Electronic spectra of molecules.

Unit – III Optics

Electromagnetic spectrum – Reflection and refraction of light waves – Image formation by mirrors and lenses – plane mirrors – spherical mirrors – optical instruments – Interference – Double slit interference – Interference from thin films – Diffraction – Single slit diffraction – Diffraction grating – Dispersion and resolving power – X-ray diffraction – Polarization – Polarization by reflection – Double refraction – Circular polarization.

Text books:

1. *Physics – Volume I* - **Resnick, Halliday, Krane**, John Wiley and Sons, Fifth Edition (2004). (**Unit – I:** Section 21.1, 22.1 – 22.5, 23.4, 23.7, 23.8, 24.3 -24.7)
2. *Physics – Volume II* - **Resnick, Halliday, Krane**, John Wiley and Sons, Fifth Edition (2002).(**Unit – III:** Section 39.1, 39.4, 40.1 – 40.3, 40.6, 41.2, 41.5, 42.1, 42.2, 43.2 – 43.4, 44.3 – 44.5)
3. *Concepts of Modern Physics* – **Arthur Beiser**, Tata McGraw Hill, New Delhi, (2008).(**Unit – II:** Section 4.1 – 4.5, 4.8, 4.9, 8.1 – 8.8)

Reference books:

1. *Fundamentals of optics* – **Jenkins & White**, Tata McGraw Hill, New Delhi, Fourth edition, (1976)
2. *Introductory Physics* – **Jerold Touger**, Wiley Student Edition, New Delhi, 2006
3. *College Physics*, **Serway & Faugher**, Thomson Brooks, Sixth Edition, (2005)

PHY 1101 PHYSICS LAB for Chemists - I 1 Credit 2hrs/wk

Course Objectives:

Enable the students

- to have hands-on experience in the measurements
- to record and process the measurements
- to correlate with the respective theoretical concepts and
- to draw non-trivial conclusions of the significance of the experiments

S. No.	Experiment
1	Error Analysis (Simple pendulum & UV method)
2	Precise Linear Measurements (Screw Gauge & Vernier Calipers)
3	Usage of Travelling Microscope – Radius of the Capillary tube
4	Spectrometer – Refractive Index
5	Spectrometer – grating
6	Thermal Expansion (Light & Telescope) – Coefficient of thermal expansion
7	Compound Pendulum – 'g' and Radius of Gyration
8	Sonometer – Verification of Laws
9	Newton's Law of Cooling – Specific heat capacity of Liquid
10	Thermocouple – Thermo EMF

PHY 1482 PHYSICS FOR CHEMISTS - II 3 Credits 3 hrs/wk

Course Objectives:

Enable the students

- to comprehend and apply the basic principles of electrostatics;
- to understand the basic principles of electrodynamics and its applications;
- to learn and understand the basic principles of analog and digital electronics;

Unit – I Electrostatics

Electric charge - Coulomb's law – Continuous Charge distributions – Electric field – Electric field lines - Dipole in an electric field - Flux – Gauss law – Applications of Gauss law – Electric potential – Electric potential of continuous charge distributions – Capacitors – Parallel plate capacitor – Capacitor with dielectrics – Electric current – resistors in series and parallel

Unit – II Magnetostatics

Magnetic field –Magnetic force on a moving charge – Hall effect – Biot-Savart law – Magnetic field due to a solenoid – Ampere's law – Applications of Ampere's law – Faraday's law of induction – Lenz's law – Magnetization – Magnetic materials – Alternating current – Single loop RLC circuit – Transformer.

Unit – III Electronics

Semiconductor – Intrinsic and Extrinsic, n and p – type – PN junction diode – Rectifier – Zener diode – Characteristics – Voltage regulation - Transistor configurations – CE amplifier and its uses – Oscillator – Hartley oscillator – Colpitt's oscillator - Introduction to op-amps – characteristics – Unity follower – Adder – Subtractor – Integrator and Differentiator – Logic gates – Boolean Algebra – NAND and NOR as universal gates – Sequential logic circuits – Flip flop.

Text books:

1. *Physics – Volume II* - **Resnick, Halliday, Krane**, John Wiley and Sons, Fifth Edition (2002)
   Unit – I: Sec. 25.4, 25.5, 26.2, 26.5, 26.7, 27.2 – 27.5, 28.3, 28.6, 30.1, 30.2, 30.6, 31.1, 31.5
   Unit – II: Sec. 32.2, 32.4, 33.1, 33.4, 33.5, 34.1- 34.3, 35.4, 35.5, 37.1, 37.3, 37.5

2. *Basic Electronics* – **B.L. Theraja**, S. Chand and Company, New Delhi (1989)
   Unit – III: Section 13.22 – 13.25, 15.1, 15.4, 16.1, 16.2, 18.6, 23.5 – 23.7, 29.1 – 29.4, 29.12, 29.14, 32.18, 32.19, 32.24, 32.26, 32.27, 32.28, 32.29, 32.30, 34, 35

Reference books:

1. *Introductory Physics* – **Jerold Touger**, Wiley Student Edition, New Delhi, 2006
2. *College Physics*, **Serway & Faugher**, Thomson Brooks, Sixth Edition, (2005)
3. *Digital Principles and Applications* – **D. P. Leach & A. P. Malvino**, Sixth Edition, (2007)
4. Electronic Principles, VII Ed., **A. P. Malvino, D. J. Bates**, McGraw-Hill Edu. (India), (2007)

PHY 1102 PHYSICS LAB for Chemists -II 1 Credit 2hrs/wk

Course Objectives:

Enable the students

- to have hands-on experience in the measurements
- to record and process the measurements
- to correlate with the respective theoretical concepts and
- to draw non-trivial conclusions of the significance of the experiments

S. No.	Experiment
1	Coefficient of Viscosity – Burette Method
2	Surface Tension – Capillary Rise
3	Young's Modulus - Uniform bending
4	Rigidity Modulus – Torsion Pendulum
5	Melde's Apparatus
6	Specific heat Capacity – Method of mixtures
7	Junction Diode Characteristics
8	Logic gates
9	OP-AMP – Inverting & Non-inverting
10	Lee's Disc – Thermal conductivity

Part IV LS Life-Skill Courses:

PHY 1291 HANDLING OF TOOLS & MACHINES 2 Credits 3hrs/wk

Course Objectives:

This course enables the students to understand the principle, uses and safety handling of hand tools and power tools. It provides hands on experience to handle the tools.

Unit – I Basic Hand Tools

Basic hand tools: Wrenches – Screw drivers - Pliers and Wire cutters – Hammers - Spanners – Chisels and Punches – Hand reamers - Files – Ripping bars and Nail pullers – Shovel - Hack saw - Holding tools: Vise – Clamp – Jigs and fixtures - Measuring tools: Rulers – Levels – Plumb bob - spirit level - Cleaning tools – Scrapers – Brushes – Probe and pick up tools.

Unit – II Power Tools and Equipments

Power tools and Equipment: – Pneumatic tools: Air wrenches – Air hammer – Blow gun - Hydraulic tools: Floor Jack – hydraulic engine crane – Tire changer – Jack stand – Steam cleaner and high pressure washer – Basic safety rules for hand tools and power tools.

Unit – III Machine Tools

Machine tools: Principle, working, types and uses of drilling machine, Lathe, Milling machine, Grinding machine, Band saw, Coil winding machine, Shaper machine and Planer machine - House hold wiring and plumbing.

Reference Books:

1. Machine Tools, **C. Elanchezhian and M. Vijayan**, Anuradha Publishers, 2005.
2. Machine Shop, Theory and Practice, **Albert. M. Wagner and Harlan. R. Arthur**, Van Nostrand Company, New York, Second Edition.
3. Modern Machine Tools, **Frank. H. Habicht**, D. Van Nostrand Company, New York.

PHY 1292 PHYSICS OF MUSIC 2 Credits 3hrs/wk

Course Objectives:

The objective of this course is to understand and appreciate the nature and production of musical sound associated with musical instruments, in terms of basic physical principles. A physical understanding of sound will enable to make meaningful comparisons among music and to appreciate how the characteristics of a sound depend on the way it is created, designed and played.

Unit-1: Introduction- Difference between Noise (sound) and music. Units and basic definitions - Frequency-Period-Pitches - Musical Notes, Chords, and Scales- Pythagorean scale –construction. Circle of fifths-Musical Intervals, major and minor notes with frequency. Dissonance, Beats- Logarithmic scales

Unit-2: Combinations of Modes – Superposition - Overtones, Harmonics, Complex Tones. Spectra - Pitch perception - simple mechanics and periodic motion. Chladni patterns - Strings standing waves and harmonics - Sound spectrum - Decibels - Resonance – dissonance - Quality factor - Helmholtz resonator, Vibrating Strings, air columns.

Unit-3: Room Acoustics:-reverberation time Sabine's Formula (Derivation not required), -Reflection/Absorption-Auditoriums vs. Recording Studios-Corner Reflectors-acoustic diffusers. Flute acoustics-construction theory - hole position calculation & making a flute with PVC pipe.

Text:

Frank S. Crawford Jr., *Waves: Berkeley Physics course Vol-3*, McGraw Hill, International Editions, New Delhi (2011).

Reference:

1. Text book of sound, Brijlal and Subramaniam.
2. Properties of Matter and Acoustics by R.Murugeshan & Kiruthiga, Sivaprasath 2005
3. Text book of Sound –Khanna. D. R. & Bedi. R. S.

PHY 1294 Photography and Digital Editing 2 Credits 3hrs/wk

Course Objectives:

Enable the students

- to comprehend the principles and accessories of photography;
- to understand the fundamentals of digital photography;
- to comprehend and apply the basics tools of digital editing;

Unit I Basics of Photography

Camera - Obscura, Pin hole camera, Different types of camera, Dark room, dark room accessories, Developer, Fixer, Printing machine, Developing film and paper.

Unit II Digital Photography fundamentals

Lenses, Light and Magnification, The power of lenses, Brightness and f-ratios, Magnification and Field of View, Aperture and stops, Shutter speed, ISO, Exposure triangle, Focus modes, Lenses and optics, Light, Flash, Composition , Framing and Layering , Landscapes, Wild life, People and Relationships, Post processing and workflow, white balance, File formats.

Unit III Digital Editing

Basic tools and techniques, images and graphic design, to open images from multiple sources, panels and menus, work with layers, masking, combine effects, other nondestructive edits , cropping and straightening images, adjusting the luminance, correcting color, retouching and healing. Sharpening images, Preparing for print and web use.

References:

1. The Art of Photography by Bruce Barnbaum.
2. The Digital Photography by Scott Kelby, 2008
3. The Photoshop CS Book for Digital Photographers by Scott Kelby, 2003

Part IVE Non-Major Elective Courses:

PHY 1201 BASIC ELECTRICITY & ELECTRONICS 2 Credits 3hrs/wk

Course Objectives:

- to comprehend the fundamentals of electricity;
- to learn and understand the working of simple electric gadgets;
- to learn and understand the basic principles of digital devices;

UNIT-1: Fundamentals of Electricity: Static electricity: static electricity between silk, woolen, glass and paper - Conductor and Insulator with examples - Current electricity: electron flow – energy transfer - voltage-current-charge-resistance-wire-battery and power explained with water flow analogy. Simple electrical circuit - Types of switches and their uses.

UNIT-2: Capacitor – resistor – inductor (coil)- units of measurement. Measuring current, voltage and resistance (colour codes). Fuse – types of switches and their use - Electromagnetism -speaker-microphone working.

UNIT-3: Basics of Digital electronics: Binary numbers, Decimal to binary conversion. Simple Boolean expressions – Logic gates – Ex-OR gate - NAND and NOR as universal logic gate - Diodes and their uses.

Text:
Basic Electricity -Paperback –**J.B Gupta, Rajiv and Rohit, SK Kataria and Sons**; 2011 edition –2012.

Reference:
1) Basic Electricity – **Milton Gussow** - Schaum's Outline Series. 2 Ed. (2009)
2) Digital principles and applications – **Malvino Leach** 7th Ed. (2005)

PHY 1202 WONDERS OF SKY **2 Credits** **3hrs/wk**

Course Objectives:
Enable the students
to understand the current state of astronomy, both the fundamentals of astronomical knowledge that have been built up over decades and the exciting advances that are now taking place along with the description of night sky.

Unit I Basics of Astronomy
Early history of Astronomy and the Origin of Modern Astronomy, Development of nature philosophy-constellations – celestial sphere – coordinate systems – birth of Modern Astronomy- Kepler's laws –-Newtonian gravitation – seasons – eclipses-tides-precession – solar family.

Unit II Spectral Classes and Stellar Evolution
Stellar distance – magnitudes of star light— evolution stages of stars — main sequence stars- Sun as a Star- fate of stars- other mysterious objects –Comets-nebula-pulsars-binary stars.

Unit III Observational Astronomy and Origin of Universe
Astronomical observations – Light and telescopes-Types of telescopes-reflector type - refractor type – classes of galaxies –Cosmological principle – the big bang – expanding universe – steady state universe – evidences for Einstein's gravitation.

TEXT
Astronomy: From the earth to the Universe, **Pasachoff**, Brooks/Cole, Thomson Learning, 2002

REFERENCE
George O. Abell, Exploration of the Universe, Saunders College Publishing (1986)

PROGRAM / COURSE FRAME

DEPARTMENT OF CHEMISTRY (UG)

Program for Choice Based Credit System - 2015 – 2016

SEM	Part	Course No.	Course Title	Hours	Credits	Marks
1	I	TAM/FRE/HIN		3	2	30
1	II	ENG 1201	Conversational Skills	3	2	30
1	IIIC	CHE 1521	Physical Chemistry - 1	5	5	75
1	IIIC	CHE 1523	Inorganic Chemistry - 1	5	5	75
1	IIIC	CHE 1325	Inorganic Quantitative Analysis	3	3	45
1	IIIS	PHY	Physics	5	4	60
1	IV	XXX	Non Major Elective - 1	3	2	30
1	IV	XXX	Life Skill - 1	3	2	30
1	V		NSS/NCN/NCC/PED/SLP			
			Total	30	27	405
2	I	TAM/FRE/HIN		3	2	30
2	II	ENG 1202	Reading & Writing Skills	3	2	30
2	IIIC	CHE 1522	Organic Chemistry - 1	5	5	75
2	IIIC	CHE 1524	Inorganic Chemistry - 2	5	5	75
2	IIIC	CHE 1322	Organic Analysis and Preparation	3	3	45
2	IIIS	PHY	Physics	5	4	60
2	IV	XXX	Non Major Elective - 2	3	2	30
2	IV	XXX	Life Skill - 2	3	2	30
2	V		NSS/NCN/NCC/PED/SLP			
			Total	30	27	405
3	I	TAM/FRE/HIN		3	2	30
3	II	ENG 2201	Study Skills	3	2	30
3	IIIC	CHE 2521	Organic Chemistry - 2	5	5	75
3	IIIC	CHE 2523	Inorganic Chemistry - 3	5	5	75
3	IIIC	CHE 2525	Physical Chemistry - 2	5	5	75
3	IIIC	CHE 2427	Inorganic Qualitative Analysis	4	4	60
3	IIIS	MAT/BOT	Mathematics / Botany	5	4	60
3	V		NSS/NCN/NCC/PED/SLP			
			Total	30	29	435
4	I	TAM/FRE/HIN		3	2	30
4	II	ENG 2202	Career Skills	3	2	30
4	IIIC	CHE 2522	Organic Chemistry - 3	5	5	75
4	IIIC	CHE 2524	Inorganic Chemistry - 4	5	5	75
4	IIIC	CHE 2526	Physical Chemistry - 3	5	5	75
4	IIIC	CHE 2428	Organic Estimation & Gravimetric Analysis	4	4	60
4	IIIS	MAT/BOT	Mathematics / Botany	5	4	60
4	V		NSS/NCN/NCC/PED/SLP			
			Total	30	29	435

SEM	Part	Course No.	Course Title	Hours	Credits	Marks
5	IIIC	CHE 3611	Organic Chemistry - 4	6	6	90
5	IIIC	CHE 3613	Inorganic Chemistry - 5	6	6	90
5	IIIC	CHE 3615	Physical Chemistry - 4	6	6	90
5	IIIC	CHE 3531	Physical Lab	5	5	75
5	IV	CHE 3200	Environmental Chemistry	4	2	30
5	IV		Life Skill - 3	3	2	30
			Total	30	27	405
6	IIIC	CHE 3612	Organic Chemistry - 5	6	6	90
6	IIIC	CHE 3614	Applied Chemistry	6	6	90
6	IIIC	CHE 3616	Physical Chemistry - 5	6	6	90
6	IIIC	CHE 3532	Special Lab Techniques	5	5	75
6	IV	VAL	Value Education	4	2	30
6	IV		Life Skill - 4	3	2	30
			Total	30	27	405
			Grand Total	180	158	2430

MAJOR SUPPORTIVES COURSES

Sem	Part	Course No	Course Title	Hours	Credits	Marks
1	IIIS	CHE 1461	Chemistry for Botanist - 1	5	4	60
2	IIIS	CHE 1462	Chemistry for Botanist - 2	5	4	60
3	IIIS	CHE XXX	Chemistry for Physicist - 1	5	4	60
3	IIIS	CHE XXX	Chemistry for Zoologist - 1	5	4	60
4	IIIS	CHE XXX	Chemistry for Physicist - 2	5	4	60
4	IIIS	CHE XXX	Chemistry for Zoologist - 2	5	4	60

NON MAJOR ELECTIVES

Sem	Part	Course No	Course Title	Hours	Credits	Marks
1	IV	CHE 1261	Chemistry in Everyday Life	3	2	30
2	IV	CHE 1262	Food Chemistry	3	2	30

LIFE SKILL COURSES

Sem	Part	Course No	Course Title	Hours	Credits	Marks
1	IV	CHE 1271	Cosmetics and Consumer Products	3	2	30
2	IV	CHE 1272	Chemistry in Crime Investigation	3	2	30
5	IV	XXX				
6	IV	XXX				

CHE 1521 **PHYSICAL CHEMISTRY-I**
5 credits **Semester – I** **5 hrs / week**

UNIT-I: **Gaseous State-I** **12 hours**

The kinetic molecular theory of gases – derivation of the gas laws –the ideal gas equation – kinetic energy and temperature – Maxwell distribution of molecular speeds and energies – types of molecular speeds – expansivity and compressibility – collision parameters – mean free path – degrees of freedom of a molecule – principle of equipartition of energy

UNIT-II: **Gaseous State-II** **12 hours**

Deviations from ideal behavior – equation of states for real gases – Vander Waals equation of state –other equations of state – intermolecular forces - the critical phenomena – P-V isotherm of carbon dioxide – the Vander Waals equation and critical states – Principle of corresponding states.- liquefaction of gases.

UNIT-III: **Liquid State & Electric and Magnetic properties of molecules** **12 hours**

Theory of liquids – vapour pressure – surface tension – surface active agents – viscosity – molar refraction - polarization – Clausius-Mosotti equation – Debye equation - Dipole moment - magnetic properties of molecules – Gouy's method - Liquid crystal – vapour pressure temperature diagrams – types of liquid crystals – arrangement of liquid crystals- Applications of liquid crystals.

UNIT-IV: **Colloids** **12 hours**

Colloidal systems – classification – preparation - a quick review – purification of colloids – properties – optical – charge on colloidal particles – electrical double layer – coagulation of colloids – electrophoresis – electro-osmosis – surfactants – protective colloids – gold number – emulsions – gels - introduction to micelles- applications of colloids.

UNIT-V: **Surface Chemistry** **12 hours**

Adsorption – examples, adsorption versus absorption, mechanism of adsorption – types of adsorption – physisorption, chemisorption – characteristics – factors influencing adsorption- adsorption isotherms- Freundlich- Langmuir derivation – multilayer adsorption – B.E.T (derivation not necessary) – Gibbs adsorption isotherm-applications of adsorption – ion exchange adsorption – applications of ion exchange adsorption.

References:

1. B. R. Puri, L. R. Sharma, M. S. Pathania, *Principles of Physical Chemistry*, *Vishal Publishing Co.*, **2014.**
2. P. L. Soni, O. P. Dharmarha, U. N. Dash, *Textbook of Physical Chemistry, S. Chand & Sons.*, **2014.**
3. B. S. Bahl, G. D. Tuli, Arun Bahl, *Essential of Physical Chemistry, S. Chand & Co.*, **2014.**
4. G.W. Castellan, *Physical Chemistry, 3rd edition, Addison-Wesley*, **1983.**
5. P.W. Atkins, Julio de Paula, *Physical Chemistry, 8th edition, Oxford University Press*, **2008.**

CHE1523 INORGANIC CHEMISTRY-I 5Hrs/WEEK
SEMESTER – I CREDITS - 5

UNIT - I: PERIODIC TABLE AND ATOMIC PROPERTIES (12 hrs)
Long form of periodic table – characteristics – classification of elements on the basis of electronic configuration – periodicity of properties – cause of periodicity – factors influencing– atomic radius – ionic radius – effective nuclear charge – Slater's rule– ionization energy, electron affinity, electronegativity – Pauling and Mulliken scales of electronegativity – applications of electronegativity – diagonal relationship – further extension of periodic table.

UNIT - II: METALLURGY (12 hrs)
Occurrence of metals- steps involved in metallurgical processes- concentration of ore- calcination- roasting- reduction of free metal- electrometallurgy- hydrometallurgy- refining- thermodynamics of reduction processes- Ellingham diagram.

OXIDATION AND REDUCTION
Oxidation number- redox reactions- oxidizing agents- reducing agents - molecular and ionic equations- balancing of redox equations by ion electron method- auto oxidation- induced oxidation- standard electrode potential- electrochemical series- applications - Lattimer diagrams.

UNIT - III: ACID –BASECONCEPT (12 hrs)

Arrhenius theory- Bronsted – Lowry concept- Lewis concept – solvent system concept- levelling solvents–Lux flood concept –Usanovich definition – factors influencing relative strengths of acids and bases- HSAB principle and its applications.

NON- AQUEOUS SOLVENTS
Physical properties of solvent- types of solvents and their general characteristics – protic solvent like H_2O – reaction in non-aqueous solvents with reference to liquid $NH_3$and liquid HF.

UNIT - IV: s- BLOCK CHEMISTRY (12 hrs)
Hydrogen – isotopes –reactive forms of hydrogen – nascent hydrogen – active hydrogen – ortho and parahydrogen –isotopes of hydrogen- occluded hydrogen –uses-heavy water

Alkali metals and alkaline earth metals – General characteristics-electronegativity - ionisation energy – electropositive character – reducing properties – flame colour – hydration energy –lattice energy and solubility of salts –biological importance –anomalous behaviour of lithium and beryllium –Diagonal relationship of Li & Mg and Be & Al–Compounds of alkali metals –hydroxides– oxides –peroxides–superoxides– wraparound complexes– preparation properties and uses ofNaOH, $NaHCO_3$,Plaster of Paris , basic beryllium acetate –Hardness of water

UNIT - V: ANALYTICAL CHEMISTRY-I (12 hrs)
Titrimetric method of analysis – end point – equivalence point – requirements – types equivalent masses – electronic concept – concentration systems – molarity – normality – formality – weight percentage – ppm - primary standard – standardization – dilution – percentage purity – acid - base neutralisation titration – theory of acid-base indicators–mixed indicators – precipitation titration – indicator –redox titration–reagents used – structural

chemistry of redox indicators –iodometry–chelometric titrations –chelons –metallochromic indicators –EDTA titration methods –selectivity – masking of ions

References:

1. B.R. Puri, L.R. Sharma and K.C. Kalia, Principles of Inorganic Chemistry, Milestone Publishers, 2012 .
2. J.D. Lee, Concise Inorganic Chemistry, Vedition., Chapman & Hall, 2000.
3. F.A Cotton and G. Wilkinson.,L.G. Paul., Basic Inorganic Chemistry III Edition John wileyEducation (Singapore) 2004.
4. P.L.Soni., Mohan Katyal, A text book of Inorganic Chemistry, Sultan Chand& Sons, 2006
5. Day Jr R.A. Underwood A.L, Quantitative analysis ,Prentice Hall of India, New Delhi, (2006).
6. R. Gopalan, P.S Subramanian, K Rengarajan ,Elements of Analytical Chemistry,Sultan Chand and sons, NewDelhi

CHE 1325 INORGANIC QUANTITATIVE ANALYSIS (VOLUMETRIC)
3 credits SEMESTER-I 3 hrs/week

I. ACIDIMETRY

1.Estimation of HCl– Link NaOH -standard oxalic acid
2. Estimation of Na_2CO_3 and $NaHCO_3$ mixture –Link HCl - standard Na_2CO_3

II. PERMANGANOMETRY

3. Estimation of oxalic acid
4.Estimation of FAS

III. DICHROMETRY

5. Internal indicator method
6. External indicator method

IV. IODOMETRY

7. Estimation of potassium dichromate

V. COMPLEXOMETRY

8.Estimation of Zn^{2+}
9. Hardness of water- temporary and permanent

VI. PREPARATION OF COMPLEXES

10. Tetraamminecopper(II) sulphate
11. Potassium trioxalatoferrate(III)

MAJOR SUPPORTIVE

CHE 1461 **CHEMISTRY FOR BOTANIST – I** **4 credits**

(Theory cum Lab Course) **5 hrs/week**

There will be two components in this course. Theory component deals with atomic structure, chemical bonding, energetics and solutions. It also deals the basic organic and photo chemistry. The objective of the lab component is to train the students in the qualitative analysis of inorganic salts.

THEORY COMPONENT **[3hrs / week]**

UNIT - I: Atomic structure, Periodic properties and Chemical bonding **(9 Hrs)**

Shapes of s & p orbitals, Electronic configuration for H to F – definitions of Ionization energy, Electron affinity & Electro negativity – Ionic bond – lattice energy – Born - Haber cycle - Covalent bond – VSEPR model – BCl_3, CH_4, NH_3, H_2O – MO theory – MO diagram for H_2, He_2, N_2, O_2, F_2 – Hydrogen bond – Consequences of hydrogen bonding

UNIT – II: Basics of Organic Chemistry **(9 Hrs)**

Tetravalent Carbon – Aliphatic and Aromatic compounds – Structure – A.O overlap concept σ & π bond – Hybridization – sp^3, sp^2, sp – Functional groups – Nomenclature – Types of organic reactions – substitution, addition, elimination, oxidation, reduction reactions – Reactive intermediates – carbocations, carbanions, free radicals – Generations and their stability

UNIT - III: Energetics **(9 Hrs)**

Spontaneous and Non spontaneous changes – Criterion for spontaneity, Entropy, Second law of thermodynamics – concept of Entropy, Free Energy and chemical equilibrium – law of mass action, Entropy Change in Phase Transformation, Le Chatelier principle – application of thermodynamics to biological systems.

UNIT – IV: Solution Chemistry **(9 Hrs)**

Aqueous solution – Acid-Base equilibria – pKa & pH – Buffer solutions, Henderson equation – Solubility & Ksp – Types of solutions – determination of concentration of solutions expressed in various scales – percentage, molarity, molality and normality – Diffusion in solutions – osmosis and osmotic pressure – measurement of osmotic pressure – isotonic solutions, reverse osmosis – significance of osmosis in biological systems

UNIT - V: Photochemistry **(9 Hrs)**

Comparison between thermal and photochemical reactions, Laws of photochemistry – quantum yield, Fluorescence, Phosphorescence, Chemiluminescence, Bioluminescence, Common photochemical reactions, Photosensitization and its application to biological systems – Photosynthesis.

LAB COMPONENT **[2hrs / week]**

This course is intended for students to qualitatively analyze the simple salts containing the following cations and anions.

Cations – Pb(II), Cu(II), Fe(II), Mn(II), Ni(II), Co(II), Zn(II), Mg(II), NH_4^+, Cd^{2+}, Bi^{3+}

Interfering Anions – oxalate, tartrate, borate, fluoride, phosphate

References:

1. R. Gopalan, S. Sundaram, Fundamentals of Chemistry, Sultan Chand & Sons, 1988
2. R. Gopalan, S. Sundaram, Allied Chemistry, Sultan Chand & Sons, 1993
3. R. Gopalan, Inorganic Chemistry for Undergraduates, Universities Press, 2009
4. B. R. Puri, L. R. Sharma, K. C. Kalia, Principles of Inorganic Chemistry, Shobanlal Nagin Chand & Co, 1995.
5. B. S. Bahl, Arun Bahl, A Text Book of Organic Chemistry, S. Chand & Co., 1989
6. P. L. Soni, Textbook of Organic Chemistry, Sultan Chand & Sons, 1998
7. B. S. Bahl, Arun Bahl, A Text Book of Physical Chemistry, S. Chand & Co., 1989
8. B. R. Puri, L. R. Sharma, K. C. Kalia, Principles of Physical Chemistry, Shobanlal Nagin Chand & Co, 1998

NME-1

SEMESTER-I

CHE 1261 **CHEMISTRY IN EVERYDAY LIFE**

2 credits **3 hours / week**

In this course an attempt will be made to establish in very simple terms the place of chemistry in modern civilized living. There will be discussions on water, water pollution and its treatment, fertilizers, insecticides, polymer and its applications, explosives and drugs.

1. Water

Electrolysis of water – water cycle – air in water – DO – BOD – COD – water pollution – control of water pollution-water treatment- Reverse osmosis- deioniser – Hygroscopy and deliquescence – water in crystals – efflorescence – hard water- soft water – permanent and temporary hardness - removal of hardness – advantage and disadvantage – potable water – standards for drinking water.

2. Fertilizers and Insecticides

Classification of fertilizers- natural manures- artificial manures- chemical fertilizers- advantages of artificial fertilizers–bio-fertilizers – insecticides- inorganic insecticides-natural or plant insecticides-organic insecticides (few eg.) -dinitro phenols, DDT, methoxychlor, BHC-pesticides - disadvantages – bio-pesticide- bluegreen algae, vermicompost.

3. Polymers and Modern materials

Fibres: Natural and synthetic fibres- cotton, wool, coir, silk, linen, polyester, viscose rayon. Synthetic polymer- organic polymer- inorganic polymer- silicon based polymer and its uses – conducting polymer – biodegradable polymers.

Resins: phenol- formaldehyde resins- resins on protective coatings- household appliances –PVC- HDPE-LDPE- Teflon- natural rubber – vulcanization- recycled plastics – polymers in medicinal toilet items.

4. Explosives

Explosives- classification-deflagrating or low explosives-characteristics of explosives (few eg.)- nitrocellulose, PETN, TNT, RDX, cordite, gun powder-rocket fuels - propellants- toxic chemical weapons-screening smokes- pyrotechnics-safety matches.

5. Drugs

Definition- chemotherapy- antibiotics – analgesics – narcotic analgesics- NSAID – medicines from plants.

References:
1. R. Gopalan and S. Sundaram, Fundamentals of Chemistry, Sultan Chand & Sons,1998.
2. G. S. Sodhi, Fundamental Concepts of Environmental Chemistry, Narosa Publishing House,New Delhi,2002.
3. D.Ainley,J.N. Lazonby,A.J.Masson, Chemistry in Today's World.
4. B.N. Chakravarthy, Industrial Chemistry, Oxford and IBH Publishing Co, New Delhi.
5. G. Mahapatra, Elements of Industrial Chemistry, Kalyani Publishers, New Delhi.
6. Ashutosh Kar, Medicinal Chemistry, Wiley Eastern Ltd., 1992.
7. B.K. Sharma, Industrial Chemistry, Goel publishing & Co, 1995.

SEMESTER-I *LS-1*

CHE 1271 **COSMETICS AND CONSUMER PRODUCTS**

2 credits **3 hours / week**

1. Hair care and colorants (8 hrs)

Hair structure-permanent hair waving-cold waving-shampoos-different types and formulations-hair conditioners and setting lotions-hair straightening-curling.

Hair colorants- hair lighteners and bleaches-temporary colorants-semi and permanent colorants-vegetable dyes-oxidation dyes and modifiers.

2. Face and body cosmetics (8 hrs)

Face powder-talcum powder-medicated powder-bleachers-facials-cold creams- sunscreen lotions-SPF factor- formulation.

Deodorants-Antiperspirants-distinction between astringents and deodorants- formulation-lotions-perfumes-formulation

Lipsticks-classification and formulation

3. Toiletries and cleansing agents (8 hrs)

Bath soap- bath powders – bath oils – water softeners-tooth pastes-ingredients-their characteristic functions-mouth washes-shaving creams-after shave preparations

Detergents- classification-formulation-cleansing action-optical brightners-bleachers-phenoyls-black phenoyls, scented phenoyls.

4. Candle, Chalk and Crayons (8 hrs)

Candles-variety of candles-raw materials – machinery- method of candle making- Chalk – dust free chalk-crayons-machines and method

5. Inks and shoe polish (8 hrs)

Inks – types-blue, red, black, green and rubber stamp ink-composition-preparation

Shoe polish-basic ingredients-preparation method

***Note :**

Preparation of Face Powder, Tooth Power, Candle, Phenoyl, Soap & Detergents, Chalk, inks, and shoe polish will be given in the Laboratory.

References:
1. J.V.Simons, Science and the Beauty Business.
2. B.K. Sharma, Industrial Chemistry, Goel publishing & Co, 1995.

CORE

SEMESTER-II

CHE1522 **ORGANIC CHEMISTRY – I**

5 credits **5 hours / week**

This course is intended to concentrate on the IUPAC nomenclature, general concepts like resonance, inductive effect, reaction types & intermediates, basic introduction to stereochemistry of organic compounds, and the chemistry of alkanes, cycloalkanes, alkenes and alkynes.

Unit 1. IUPAC nomenclature of organic compounds (12 hrs)

IUPAC Nomenclature- Rules for naming the organic compounds-alkanes-alkenes-alkynes-cyclic aliphatic hydrocarbons-alkyl halides-alcohols-ethers-aldehydes-ketones-carboxylic acids-acid derivatives-nitroalkanes-amines.

Common errors in writing IUPAC names.

Quantitative elemental analysis-estimation of carbon, hydrogen, nitrogen, halogen and oxygen-calculation of empirical formula and molecular formula.

Unit 2. Fundamentals of organic chemistry (12 hrs)

Resonance-hyperconjugation-tautomerism- inductive and field effects-hydrogen bonding.

Homolytic and heterolytic bond breaking-types of reagents-electrophile and nucleophiles-types of organic reactions-energy considerations.

Reactive intermediates-carbocations, carbanions, free radicals, carbenes, arynes and nitrenes (with examples)-Assigning formal charges on intermediates and other ionic species.

Purification methods-Chromatographic methods– paper, TLC, column - distillation-recrystallization techniques.

Unit 3. Stereochemistry (12 hrs)

Concept of Isomerism-types of isomerism.

Optical isomerism-elements of symmetry-molecular chirality-enantiomers- stereogenic cnetre-optical activity-properties of enantiomers-chiral and achiral molecules with two stereogenic cnetres-diastereomers-threo and erythro diastereomenrs-mesocompounds-resolution of enantiomers-inversion-retention- racemization-relative and absolute configuration-sequence rules-D/L, R/S systems of nomenclature.

Geometric isomerism-determination of configuration of geometric isomers-E&Z nomenclature-geometric isomerism in oximes and alicyclic compounds.

Conformational isomerism-conformational analysis of ethane and n-butane-Newmann projection-Sawhorse formulae-Fischer and flying wedge formula-conformations of cyclohexane-axial and equatorial bonds-conformation of mono and di substituted cyclohexane derivatives.

Differences between configuration and conformation.

Unit 4. Alkanes and cycloalkanes (12 hrs)

IUPAC nomenclature of branched and unbranched alkanes-alkyl group-classification of carbon atoms in alkanes-Isomerism in alkanes-sources-methods of formation (with special reference to Wurtz reaction, Kolbe reaction, Corey-House reaction and decarboxylation of carboxylic acids)-physical properties and chemical reactions of alkanes-Mechanism of free radical halogenation of alkanes-orientation –reactivity and selectivity.

Cycloalkanes-nomenclature-methods of formation-chemical reactions-Baeyer's strain theory and its limitations-Ring strain in small rings (cyclopropane and cyclobutane)- theory of strainless rings-cyclopropane ring-banana bonds.

Fractions obtained from petroleum-methods of cracking-octane numbr-cetane number-synthetic petrol-petrochemicals.

Unit 5. Alkenes, Alkadienes and Alkynes (12 hrs)

Nomenclature of alkenes-methods of formation-mechanisms of dehydration of alcohols and dehydrohalogenation of alkyl halides, regioselectivity in alcohol dehydration-Saytzeff rule-Hofmann elimination-physical properties and relative stabilities of alkenes-Chemical reactions of alkenes-mechanism involved in hydrogenation- electrophilic and free radical additions-Markownikoff's rule-hydroboration-oxidation-oxymercuration-reduction-epoxidation-ozonolysis-hydration-hydroxylation and oxidation with $KMnO_4$-polymerizations of alkenes-substitution at the allylic and vinylic position of alkenes-Industrial application of ethylene and propene.

Methods of formation-conformation and chemiscal reactions of cycloalkenes.

Nomenclature and classification of dienes-isolated-conjugated and cumulated dienes-structure of allenes and butadiene-methods of formation-polymerization-chemical reactions-1,2 &1,4 (Michael addition) additions-Diel's Alder addition.

Nomenclature –structure and bonding alkynes-methods of formation-chemical reactions of alkynes-acidity of alkynes-mechanism of electrophilic and nucleophilic addition reactions-hydroboration-oxidation-metal ammonia reductions-oxidation-polymerization.

Reference:

1. B. Mehta & M. Mehta, Organic Chemistry, Prentice – Hall of India Private limited, 2007.
2. M.K. Jain and S.C. Sharma, Textbook of Organic Chemistry, Vishal publishing Co, 2007.
3. P.L. Soni and H.M. Chawla,Textbook of Organic Chemistry , Sultan Chand and Sons, 28th edition, 2007.

CHE1524 **INORGANIC CHEMISTRY-II** **5Hrs /WEEK**
SEMESTER – II **CREDITS – 5**

UNIT - I: COVALENT BONDING (12 hrs)

Lewis theory- Sidgwick theory – sigma and pi bonds – variable covalency –VB theory and its limitations – types of hybridization and shapes of inorganic molecules and ions – VSEPR theory – regular and irregular geometries – MO theory – LCAO method – homo and hetero nuclear diatomic molecules – bond characteristics.

UNIT - II: IONIC BONDING (12 hrs)

Types of ionic solids – radius ratio rule – limiting radius ratios for coordination numbers 3, 4 and 6 – applications – limitations – close packing – ionic compounds of type AX, AX_2 – layer structure – lattice energy and Born Haber cycle – Born-Lande equation – solvation energy and solubility of ionic solids – polarizing power and polarisabilities of ions – Fajan's rule – imperfections in crystals.

UNIT - III: CHEMICAL FORCES (12 hrs)

Types of chemical forces – ion-dipole forces – dipole-dipole interaction – ion-induced dipole interaction – dipole-induced dipole interaction – London dispersion forces – Hydrogen bonding – types and consequences –applications.

THE NOBLE GASES

Occurrence – discovery – isolation of noble gases from atmosphere – physio- chemical method – physical properties of helium – compounds of xenon – fluorides – oxides – oxo fluorides – structures and shapes – uses of noble gases – clathrates.

UNIT - IV: BORON GROUP CHEMISTRY (12 hrs)

General characteristics – periodicity in group properties – diagonal relationship between boron and silicon – occurrence and uses of elements – comparative study of hydrides, oxides, hydroxides, trihalides– preparation and structure of borides – preparation, properties and structure of diborane – higher boranes and Wades rule – boron nitride – borazine – preparation, properties and uses of H_3BO_3

UNIT - V: CARBON GROUP CHEMISTRY (12 hrs)

General characteristics–catenation– unique character of carbon– comparison of carbon and silicon – Allotropy of carbon- diamond-graphite-fullerenes- grapheme –carbides–halides– oxides– silicates– classification– zeolites– ultramarines– silicone– glass– preparation properties and uses of freons, carborundum and lead pigments.

References:

1. B.R. Puri, L.R. Sharma and K.C. Kalia, Principles of Inorganic Chemistry, Milestone Publishers, 2012 .
2. J.D. Lee, Concise Inorganic Chemistry, Vedition., Chapman & Hall, 2000.
3. P.L. Soni., Mohan Katyal, A text book of Inorganic Chemistry, Sultan Chand & Sons, 2006.
4. W.U. Malik, G.D. Tuli and R.D. Madan, Selected topics in Inorganic Chemistry, S.Chand& Co. Ltd., 2004.
5. R. Gopalan, Inorganic Chemistry for Undergraduates, University Press (India) Pvt. Ltd., 2009
6. J.E.Huheey, Principles of Structure andReactivity,IVEdn., Collins College Publishers 1993.

SEMESTER-II

CHE 1326 ORGANIC ANALYSIS AND PREPARATIONS

3 credits **3 hrs/week**

Analysis of an organic compound

I. Elements present
II. Saturated/ Unsaturated
III. Aliphatic / Aromatic
IV. Functional groups
    1. Carboxylic acids and phenols
    2. Aldehydes and ketones
    3. Esters
    4. Carbohydrates- sugar – reducing and non-reducing
    5. Amines
    6. Amides
    7. Anilides
    8. Nitro compounds

V. Preparations of derivatives for some of these functional groups – recrystallization– melting point determination.
   1. Condensation (Oxime preparation)
   2. Bromination
   3. Hydrolysis of esters and amides
   4. Diazotization for amines and nitro compounds

MAJOR SUPPORTIVE

CHE 1462 **CHEMISTRY FOR BOTANIST – II**

(Theory cum Lab Course)

4 credits **5 hrs/week**

There will be two components in this course. Theory component deals with chemical kinetics, catalysis, spectroscopic techniques, stereo chemistry. It also deals with coordination chemistry. Lab component is to train the students to estimate volumetrically metal ions like iron, copper, calcium, zinc etc.

THEORY COMPONENT **[3hrs / week]**

UNIT - I: Chemical Kinetics and Catalysis **(8 Hrs)**

Rate, order & molecularity of a reaction – rate equations – First, second and zero order reactions – half life time of a reaction – methods of determining order of a reaction – effect of temperature on reaction rate – activation energy – Arrhenius equation – Catalysis – enzyme catalysis – Michaelis-Menten hypothesis and its applications

UNIT – II: Thermochemistry **(8Hrs)**

Internal energy changes in a chemical reaction – Changes of enthalpy in a chemical reaction – enthalpy of reaction at constant volume and at constant pressure – enthalpy of combustion, neutralization, dissociation, formation – Kirchoff's equation – Hess's law and its applications – Bomb Calorimeter

UNIT - III: Co-ordination Chemistry **(8 Hrs)**

Coordination compounds – shapes of d- orbitals – Werner's theory – coordination number – types of ligands – nomenclature – concept of EAN – Paulings theory – CFT – CFSE – crystal field splitting in Octahedral field – spectrochemical series – chelation – application of complexes in qualitative, volumetric and gravimetric analysis

UNIT - IV: Stereochemistry **(8 Hrs)**

Stereochemistry and stereoisomerism – tetrahedral carbon – optical activity – plane polarized light – polarimeter – specific rotation – chiral centres – enantiomers and optical activity – specification of R and S configurations – diastereomers – meso structures – racemic modification – resolution – Geometrical isomers – E/Z nomenclature

UNIT – V: Basic spectroscopic techniques **(8Hrs)**

UV, IR, NMR spectroscopy and Mass spectrometry techniques – Introduction, Principle and Applications to Organic compounds

LAB COMPONENT **[2hrs / week]**

This course is intended for students to quantitatively estimate metal ions like iron, copper, calcium, zinc etc.

1. Estimation of Fe(II) – Permanganometry
2. Estimation of Fe(II) – Dichrometry/Internal Indicator
3. Estimation of Fe(II) – Dichrometry/External Indicator
4. Estimation of $K_2Cr_2O_7$ - Iodometry
5. Estimation of Cu(II) – Iodometry
6. Estimation of Zn(II) – Complexometry
7. Estimation of Ca(II) – Complexometry
8. Estimation of Hardness of Water

References:

1. R. Gopalan, S. Sundaram, Fundamentals of Chemistry, Sultan Chand & Sons, 1988
2. R. Gopalan, S. Sundaram, Allied Chemistry, Sultan Chand & Sons, 1993
3. R. Gopalan, Inorganic Chemistry for Undergraduates, Universities Press, 2009
4. B. R. Puri, L. R. Sharma, K. C. Kalia, Principles of Inorganic Chemistry, Shobanlal Nagin Chand & Co, 1995.
5. B. S. Bahl, Arun Bahl, A Text Book of Organic Chemistry, S. Chand & Co., 1989
6. P. L. Soni, Textbook of Organic Chemistry, Sultan Chand & Sons, 1998
7. B. S. Bahl, Arun Bahl, A Text Book of Physical Chemistry, S. Chand & Co., 1989
8. B. R. Puri, L. R. Sharma, K. C. Kalia, Principles of Physical Chemistry, Shobanlal Nagin Chand & Co, 1998

NME-2

SEMESTER-II

CHE 1262 **FOOD CHEMISTRY**

2 credits **3 hours / week**

Unit 1. Composition of milk (8 hrs)

Milk-definition - general composition of milk - constituents of milk - lipids, proteins, carbohydrates, vitamins and minerals - physical properties of milk-colour, odour, acidity, specificgravity, viscosity and conductivity-Reckneckel effect- factors affecting the composition of milk - adulterants, preservatives and neutralizer- examples and their detection- estimation of fat, acidity and total solids in milk.

Unit 2. Processing and major milk products (8 hrs)

Microbiology of milk- destruction of microorganism in milk-physico- chemical changes taking place in milk due to processing - boiling, pasteurization-types of pasteurization- Bottle, batch and HTST (High Temperature Short Time) – Vaccum pasteurization- Ultra High Temperature pasteurization.

Cream – composition - Chemistry of creaming process –estimation of fat in cream.

Butter – composition - theory of churning – desibutter - salted butter - estimation of acidity and moisture content in butter.

Ghee - major constituents - common adulterants added to ghee and their detection – rancidity – definition – prevention - antioxidants and synergists- natural and synthetic.

Unit 3. Principle and methods of preservation (8 hrs)

Principles and methods of preservation- Asepsis- preservation by high temperature- pasteurization- sterilization- Aseptic canning- preservation by- low temperature – chemicals ,

sulphur dioxide, sodium benzoate, sodium meta bisulphite – drying- filtration- carbonation- sugar- fermentation- salt- acids- oils and spices- antibiotics- Irradiation.
Canning and bottling of fruits and vegetables- principles and process of canning- different methods- canning of fruits- canning and bottling of vegetables – canning of curried vegetables- specific requirements for canning of fruits and tomatoes.

Unit 4. Food colorants, additives and flavours (8 hrs)
Natural colouring matters- chlorophylls- carotenoids- anthocyanins- flavanoids- anthocyanins- tannins- quinines and xanthones betalains
Synthetic colours – permitted colours-banned colours-FPO, FSSAC, Agmark.
Food additives and brominated vegetable oils - functions and uses of food additives- classification of food additives - B.V.O – substances prohibited in foods - additives to be used with caution
Food flavours- flavour compounds- flavanoids- terpenoids- sulfur compounds- other volatile components- types of flavour- developed flavour- processed flavour- added flavour.

Unit 5. Food processing and quality control (8 hrs)
Fruits and vegetables drying /dehydration- techniques – advantages of dehydration over sun drying.
Freezing – of fruits and vegetables- methods of freezing- sharp freezing – Quick freezing- cryogenic freezing- dehydro- freezing- dehydro freezing- freeze drying.
Quality control in Food processing Industry - F.P.O specification – storage life- permissible limits of preservatives- food toxins.

References:

1. Robert Jenness and Patom.S., , Principles of Dairy Chemistry, Wiley, New York.
2. Rangappa K.S and Acharya K.T., Indian Dairy Products.
3. Wond F.P., Fundamentals of Dairy Chemistry, Springer.
4. Lampert L.M., Modern Dairy Products, Chemical publishing company Inc., NewYork.
5. Warder, Principles of Dairy Processing, Wiley, New York.
6. Sukumar De, Outlines of Dairy technology.

LS-2

SEMESTER-II

CHE 1272 **CHEMISTRY IN CRIME INVESTIGATION**

2 credits **3 hours / week**

Unit 1. Criminology and Forensic science (8 hrs)
Criminology- definition-nature and scope-types of crimes penology- Indian penal code- Indian evidence act-Indian criminal procedure code.
Forensic science- definition-principles and uses in crime investigation.

Unit 2. Finger prints & Tracks-Traces (8 hrs)
Finger prints-patterns-classification-uses of finger print in crime investigation-direct and latent prints-development by powders- other methods of development- transfer methods of finger prints.
Tracks –Traces-Foot prints-casting of foot prints- residue prints- walking pattern-tire marks- miscellaneous traces & tracks-glass fracture-tool marks-paints-fibres.

Units 3. Biological substances and poisons (8 hrs)
Blood-semen-saliva-sweat-urine-hair-skin-DNA analysis.
Poisons-types and classification-diagonosis of poisoning in the living and in the dead-clinical symptoms-post-mortem appearances-treatment in cases of poisoning- antidotes.

Unit 4. Arsons, explosives and Ballistics (8 hrs)
Natural fires and arson- nature of action of fire-drifts and air supply-burning characteristics.
Explosives-definition-classification-compostion and mechanism of explosion-bombs.
Ballistics- classification- internal, external and terminal ballistics-small arms-classification and characteristics-laboratory examination of barrel washing and detection of powder residues by chemical tests.

Unit 5. Cyber crimes and documents (8 hrs)
Cyber crimes- crime through network
Documents-Chemistry of paper and ink-writing paper-carbon paper-chalk-adhesives-sealing waxes-different types of forged signatures-simulated and traced forgeries-inherent signs of forgery models-writing of forged models-writing deliberately modified-use of ultraviolet rays-comparison of type written letters-counterfeit of currency and coins

References:
1. Saferstein, R. (1978), Criminalities and introduction to Forensic Science, Prentice Hall of India.
2. James, T.H. (1987), Forensic Science.

PROGRAM / COURSE FRAME

DEPARTMENT OF BOTANY (UG)

Program for Choice Based Credit System - 2015 – 2016

	Part	Course No	Course tittle	Hr	Cred	Marks
I	I		TAMIL/HINDI/FRENCH	3	2	
	II	ENG 1201	Conversational Skills	3	2	
	MAJ	BOT1531	Ecology	5	5	
	MAJ	BOT1433	Learning Basic Skills in Botany	4	4	
	MAJ	BOT1435	Lab 1 (Ecology and LBSB)	4	4	
	LS1	BOT1231	Mushroom Culture Technology	3	2	
	NME1	BOT1233	Food and nutrition	3	2	
	MS	BOT1437	Plant Biology I	3+2L	4	
			TOTAL(First semester)	**30**	**25**	
II	I		TAMIL/HINDI/FRENCH	3	2	
	II	ENG 1562	Poetry I: Chaucer to Arnold	3	2	
	MAJ	BOT1532	Economic Botany	5	5	
	MAJ	BOT 1434	Horticultural Practices and Post-Harvest Technology	4	4	
	MAJ	BOT 1436	Lab II (Economic Botany and Horticulture)	2+2	4	
	LS2	BOT 1236	Nursery and Gardening	3	2	
	NME2	BOT 1238	Plant Wonders	3	2	
	MS	BOT 1438	Plant Biology II	3+2L	4	
			TOTAL (Second Semester)	30	25	
III	I		TAMIL/HINDI/FRENCH	3	2	
	II	ENG 2201	Study Skills	3	2	
	MAJ	BOT 2531	MicrobiologyandPhycology	5	5	
	MAJ	BOT 2533	Archegoniatae	5	5	
	MAJ	BOT 2335	Genetics and Plant Breeding	3	3	
	MAJ	BOT 2637	Lab III (Micro + Archegoniate+Genetics)	2+2+2	6	
	MS	BOT 2439	General Botany I	3+2L	4	
			TOTAL (Third Semester)	30	27	
IV	I		TAMIL/HINDI/FRENCH	3	2	
	II	ENG 2202	Career Skills	3	2	
	MAJ	BOT 2532	Mycology and Pathology	5	5	
	MAJ	BOT 2434	Cell Biology	4	4	
	MAJ	BOT 2436	Anatomy &Reproductive Biology of Angiosperms	4	4	
	MAJ	BOT 2638	Lab IV (Myco + Cellbio+Anatomy)	2+2+2	6	
	MS	BOT 2440	General Botany II	3+ 2L	4	
			TOTAL(Fourth semester)	30	27	

	Part	Course No	Course tittle	Hr	Cred	Marks
V	MAJ	BOT3631	Plant Systematics	6	6	
	MAJ	BOT 3633	Biochemistry	6	6	
	MAJ	BOT 3535	Analytical Techniques &Research Methodology.	5	5	
	MAJ	BOT 3637	LabV – (Systematics + Biochem)	3+3	6	
	LSE	BOT 3239	Medicinal Botany	3	2	
	EVS	BOT 3241	Environmental Studies	4	2	
TOTAL (Fifth Semester)				30	27	
VI	MAJ	BOT 3832	Plant Biotechnology**(Lab cum Theory)**	5+3L	8	
	MAJ	BOT 3434	Entrepreneurial Botany	4	4	
	MAJ	BOT3536	BioresourceMgt	5	5	
		BOT 3638	Project			
	MAJ	BOT 3242	PlantPhysiology	**4+2**	**6**	
	LS4	BOT 3240	Biofertilizer&Biopesticide	3	2	
	VAL			4	2	
TOTAL (Sixth Semester)				30	27	

BOT 1531 **Ecology** **5h/5cr**

Course Objectives:
This course is designed for a fresher who steps in to the World of plants with an intent of aesthetically appreciating it. The study material is prepared to introduce the basics of botany and also help to study environment with floristic perspective. The course is aimed at giving ample material on plant based interaction for a better understanding of the surrounding. Further the content will focus on the local knowledge on agriculture and the natural resource management and traditional practices of the local community in their day today life. After the completion of this course the student will be able to understand and appreciate the traditional knowledge and natural resources around him.

Unit 1; Climate and Geography
Global, Regional and Local Climatic Conditions- a overview- Basic elements of Maps and Global Contour – Landscape Mapping - Altitudinal Zonation and forest types of Tamilnadu – Coastal to Climax Types – Significance of Forests and Grasslands – Elements of Forest mapping and application. Global Climate Change and its Impact on landscape transformation.

Unit 2: Ecological History
Traditional Classification of Landscapes and Landscape Elements – Sacred Grooves, Nandavanam and other Scared elements –Sangam Literature and Land use pattern – Plants and Animals of Socio-religious importance in Madurai – Ecological History of Western Ghats and Vaigai Delta – Cultural ecology of Madurai City

Unit 3: Human Ecology
Ecology of Earth before and after the evolution of Homo sapiens – Introduction to Evolution (Origin of life – basics of evolution and coevolution- Origin of Species- Contributions of Darwin, Lamarck, Urey and Miller – tree of life – Origin of human) – Anthropogenic Impacts –Human population explosion and demographic changes – Impact on Animal and Plant population – Impact of Agriculture: Native, exotic, and invasive Species – Valvilovian Centre of Origin – Green revolution - Genetically Modified Crops

Unit 4: Urban Ecology (Madurai)
Impact of Urbanization and Tourism – Cultural Eutrophication of Vaigai River- Irrigation practices in Madurai - Interlinking of Vaigai and Cauvery – Land use conflicts in urban and rural areas of Madurai - Agrobiodiversity and Monoculture in Madurai – Solid Waste Management and Pollution Monitoring at Madurai

Unit 5: Vegetation and Floristic Elements
Estimation of number of species and number of individuals of a species at given geographical area - college / school/ hospital campus/ parks /temples - Distribution of trees and other aesthetically important species in Madurai – Field ecologicay: Quadrat (frequency, density and abundance) Transact (belt and line) – Visualization of Composition, Structure and Origin of Community

REFERENCES

1. Anonymous, 2011. Hand book of Agriculture, Indian Council of Agricultural Research KrishiAnusandhanBhavan-I, Pusa, New Delhi-110012 (ISBN No.: 81-7164-050-8)
2. Karhana, P. K 2004. Agriculture Science "a Complete Study Package" Arihant Publishers (ISBN-13: 978-8183482875)
3. Krishnamurthy, K.V. 2003. A Text Book on Biodiversity (Principles and Practice), Science Publishers, USA. (ISBN 1578083257, 9781578083251)
4. Prithipalsingh, 2010. Introduction to biodiversity.Ane Books Pvt. Ltd. New Delhi. (ISBN 978-81-8052-185-0) (www./anebooks.com)

BOT1433 LEARNING BASIC SKILLS IN BIOLOGY 4Hrs / 4cr

Course Objectives:

This is a unique course which aims to equip students to develop a basic understanding in biology and self-learning skills to comprehend and communicate with clarity and authenticity. It will also teach soft skill to the fresher in Botany who will be mostly from semi urban background of Madurai and give them the confidence to maneuver their linguistic and cognitive limitation. The course will also provide a gateway to the students and open their thinking and sensitivities to learn and appreciate in science and help to harbor and nurture innovative ideas in day to day life.

Unit 1. History of Natural Sciences

Rudiments and insights on botanical edifier - Contributions of Indian Botanists –S.R. Kashyap (Bryology) - BirbalSahni (Paleobotany)- P.Maheshwari(Embryology) M.S. Swaminathan (Plant Breeding)- Jagadish Chandra Bose (Biophysics) .

Contributions of Naturalists of International Acclaims – Charles Darwin(Evolution) G.J Mendel (Genetics) Louis Pasteur (Microbiology) Watson and Crick (Cell biology).

Unit 2.Communication in Biology

Observational Skills: Contours of inputs from Class Lectures, Seminars, Field Visits; Serendipity in science (Penicillin Invention, Newton Law), Making notes while listening

Communication and Presentation skills: Verbal and Nonverbal – Use of scientific words,photographs, cartoonsdiagrams, tables and graphs – Common barriers and impediments in communication.

Reading and Comprehension skills: Importance of reading, academicreading tips, making notes while reading.

Writing Skills: Purpose of writing (Class room, Examination, Scientific Publication) – logical sequence –Art of forming sentence and paragraph- Choice of appropriate botanical terminology, interpretation of results and inferences, experimental records - Mnemonics.

Unit 3.Quantitative Biology

An overview of units and measurements- International system of Units (SI), Seven basic units - Distance (Meter), Mass (Kilogram), Time (Second), Electric current (Ampere), Temperature (Kelvin), Quantity (Mole) & Luminous intensity (Candela). Fundamental Measurement- Volumetric and Gravimetric Measurements – Tool and Techniques – Consents and Standards – Principles of Calibration and minimizing Error. - Collection, Processing, Presentation of Data

Unit 4– Soft Skills

Personality and Leadership Traits - Intra personal and Inter personal skills, Self-confidence, Goal Setting, Problem solving abilities, Reflective thinking and Strategic Planning, Time management and Effective planning.

Unit 5 – Computer in Biology

Basic Computing and Arithmetic logic skills - Computer- Software & hardware, Exploring MS office (Opening and Saving File, MS word, Excel & Power point) and other open source software – Basics of networking and Internet applications- Selected tailor made software and its application in biology - Smart phone and its application in biology.

REFERENCE

1. Adair J, (1997), Effective communication, Pan Book. ISBN 0330347861
2. Jones A., Reed R & Weyers.(2012), J. Practical skills in biology, Pearsons Review. ISBN 978- 1408245477

BOT 1435 Ecology and Learning basic skills in botany-LAB 4h/4cr

This is a basic course for those who have freshly joined in the filed oriented biology courses. The primary objective of this course is to inculcate quantitative thinking and critical analysis among the students. It is designed to promote systematic observation skills to promote documentation of the facts that are observed in the field. While studying the basic field ecology concepts students will be given a chance to catalog the field information and data with precision and accuracy. At the end of this course students will know to enumerate, tabulate, rank, measure, estimate both qualitative and quantitative information collected at the study area. They will be also trained to present given information with clarity and accuracy to their class and any other relevant forums.

1. Enumeration and Description of Trees at the American college campus.
2. Observation of structural modifications and adaptations of plants grown in different ecosystem.
3. Fundamentals of Measurement (Volumetric and Gravimetric Measurements).
4. Basic Landscape Mapping (application of GPS and GIS)
5. Raunkier's biological and leaf spectrum.
6. Report Writing
7. Floristic studies of our campus (line and belt transect study).
8. Vegetation mapping in a nearby forest area (quadrat study 1x1, 10x10m).
9. Exploring MS office (word and Power Point presentation).
10. Botanical elements of heritage (historical) sites and sacred groves in Madurai (any one site).
11. Importance of irrigation and traditional wager management in Madurai; traditional crops in Madurai.
12. Data mining – scientific web sites.

REFERENCES

1. Bendre, A. M., A. Kumar, 2006. A text book of practical botany. (Vol I and II) Rastogi Publication New Delhi. (ISBN 81-7133-852-6)
2. Jones A., Reed R & Weyers.(2012), J. Practical skills in biology, Pearsons Review. ISBN 978- 1408245477
3. Sundararajan, S. 2000. Practical manual of Angiosperm Taxonomy. Anmol publication New Delhi. (ISBN 81-261-0687-5)

BOT 1231 Mushroom Culture Technology 3h. / 2Cr

As a two credit course offered to the first year student of any major, it will be taught as life skill course. Skill development is being recognized as the priority of higher education in any said branch of science. This course is designed to motivate fresh students to learn the science of cultivating mushrooms. It is an introductory level course and designed to help the students to grow mushrooms in simple and cheap substrates like hay and organic debris and other locally available substratum.The nutritive and economic potential of mushrooms will be taught with illustration. Demonstration and field visit components may help the students to get hands on experience. At the end of the course the students will develop skills in commercial cultivation, harvest and marketing. It is taught as a lab cum theory course which will span 4 hours per week. This course is also designed to carter to the need of young entrepreneurs who would like to start a food based industry.

Unit 1. Introduction:
Mushroom a type of fungi –Characteristics features of fungi – Differences between fungi and other organisms. mushroom classification – History of mushroom cultivation – Naming of mushroom – Popular mushroom – Edible and poisonous mushrooms – Institutes cultivating mushroom – Varieties available in Tamilnadu

Unit 2. Morphology and Taxonomy of Mushroom:
Morphological characters and taxonomical position of Agaricus - Pleurotus – Volvariella – Psilocybe –life cycle of any one species – Spore collection – fruiting body.

Unit 3. Cultivation of Mushroom:
Tray method for large cultivation – Packet method for small scale cultivation – Pure culture of spores – compost making – spawn types and spawning – casing of soil – Time interval for water sprinkling – Pest identification and control – environmental control.

Unit 4. Harvesting and Packaging :
Manual harvesting method – Asepsis –Packing – Labeling –Marketing –Shelf life of mushrooms – Budget.

Unit 5. Uses of Mushroom:
Economic value of various mushrooms – Food and Dietary Component –Medicinal value – Mushroom recipes.

References:

1. Bahl N. 2000. Handbook of mushrooms, Oxford and IBH publishing co. pvt.Ltd.New Delhi. ISBN 81-204-1399-7.
2. Kaul T.N. 2002. Biology and conservation of mushrooms.Oxford and IBH publishing co.pvt.Ltd. New Delhi. ISBN 81-204-1513-2.
3. Stamets P and Chilton J. S 1983. The mushroom cultivator, Agarikan press.HomstetBook corporation. ISBN096-1079-80-0.

Text book:

Tripathy D.P 2005. Mushroom cultivation. Oxford and IBH publishing co. pvt.Ltd.New Delhi .ISBN 81-204-1644-9.

BOT 1233 **FOOD AND NUTRITION** **3hr/2cr**

Human perspective towards food keepschanging, taking advantage of this, global marketers introduce food varieties and various food products in the market every year. In general, food preferred by consumers is determined by the media and the advertisement agencies. Hence, today's youth and children are attracted towards a variety of packaged, preserved fast food. Enough cautions are posed by health advisors about these junk foods, but still awareness is poor about healthy foods among the educated too. There is a need for a scientific analysis of the food we consume. This course is designed to know about the food, its quality and nutritional value. Students will get awareness about food adulteration and ill effects of artificial food colorants and preservatives. They would be able to choose healthy foods and avoid junk foods and further they would be able to carry this knowledge to their family and friends.

Unit 1. Food facts:

Concept of food – definition of human food– Brief history of food and agriculture–cuisines and culture - Gender and Age dependent food choice - Classification of food – (Western foods, Indian food , continental foods, Ethnic foods and Regional foods)- Famous food recipes of Madurai – Hunger and food security

Unit 2. Food Colorants

Food colorants- Types – Recommended dose and methods of application – Role in food preparation Food flavors- Types – Physical and Chemical Properties– Procedures of choosing right food flavors

Unit 3. Food Preservatives

Food preservatives – Types – Determination of minimum and maximum shelf life of food – expiry date – limitation and clinical impacts .Artificial sweeteners – emulsifiers – probiotics – microbes in food industry – advantages and limitations of natural colorants and flavors.

Unit 4. Food adulteration:

Adulterants – types of adulteration –simple tests used in identifying adulterated in food stuffs – Qualitative assessment of adulteration in food – Impact on health – case study. Food policies and laws – Legal implications Food and Health:

Unit 5. Know your Food:
Biochemical classification of Food and Nutrients – BMI Calculation – Nutritional requirements based on age, body mass and gender – Master Health Checkup Programs and role of dieticians – Balance diet and choice of food – Comparative analysis of a. Junk food vs. Raw food , b. Seasonal local food Vs. exotic food – vegetarian food vs. non vegetarian food. - Safe minimum cooking temperature and prevention of loss of nutrients

REFERENCES

1. Sri Lakshmi, B. 2006. Nutrition science. New Age International publishers (ii ed.) ISBN 81-224-1633-0
2. Sumathi R.M 2007. Fundamentals of Food, Nutrition and Diet Therapy, New Age International Publication ISBN 81-22419828
3. Anita Tull 1996. Food and Nutrition, Oxford University Press ISBN: O1-98327668
4. Anni Fredrick 2006. Text Book of Food and Nutrition, Lotus Press ISBN: 8193820735
5. Sanjeev R. 2014. Ayurvedic Science of Food and Nutrition, Springer Publication ISBN: 978-1-4614-9627-408245477

BOT 1437 PLANT BIOLOGY I 3+2 H/4C

This course is designed for zoology major students as a supportive course to enable them to understand the world of plants. It gives an overall view on diversity in structure, organization and evolutionary trend in the plant kingdom. Plants are broadly divided into non-vascular and vascular plants and from each group a plant will be taken for a detailed study. The course also has a lab component, in which students will hands on experiment in learning more about the type specimens. At the end of the course the students would have accomplished the basic understanding of the plant kingdom, which may help them to understand and appreciate the close relationships between flora and fauna.

UNIT I: Introduction:
Geological timescale - Five kingdom classification – evolution of plant.Non – vascular plants: General characters of algae – occurrence, and structure and lifecycle of alga (Caulerpa) - economic importance of algae.

UNIT II: Non–vascular plants:
General characters of bryophytes and morphology of Riccia- Changes in Gametophytes toSporophytes – Alternative of Generation-Economic importance of bryophytes.

UNIT III: Lower Vascular plants:
Non-flowering plants – General characters and lifecycle of Pteridophytes – Diversity and morphology of ferns (Pteridiumaquilinum). Ecology and evolutionary significance

UNIT IV: Primitive Seed plants:
General characters of Gymnosperms–morphology of Pinus. Commercial uses of Gymnosperms

UNIT V: Flowering plants:

Bentham and Hookers classification (up to series level)Diagnostic characters of Malvaceae (Polypetalae), Solanaceae (Gamopetalae), Euphorbiaceae (Monochalamydeae) and Poaceae (Monocotyledons) with a species from each family as an example. Floral biology – significance of fruits and seeds

REFERENCES

1. Bhattacharyya, B. 2005. Systematic botany. Narosa Publishing House, Chennai (ISBN 81-7319-542-0)
2. Pandey, B. P. 2005. College Botany, Vol I. (5th ed.) S. Chand & Company New Delhi. (ISBN 81-219-0593-1)
3. Pandey, B. P. 2009. College Botany, Vol II. (7th ed.) S. Chand & Company New Delhi.(ISBN 81-219-0601-6)
4. Vashishta, B.R., A. K. Sinha & A. Kumar 2005. Bryophyta. S. Chand & Company New Delhi.(ISBN 81-219-0463-3)
5. Vashishta, P. C. 2001. Pteridophyta (Vascular Cryptogams). S. Chand & Company New Delhi. (ISBN 81-219-0828-0)
6. Vashishta, P. C. 2009. Gymnosperms. S. Chand & Company New Delhi. (ISBN 81-219-2618-1)

PLANT BIOLOGY I (LAB)

1. Algae – Caulerpa as example vegetative and reproductive structure
2. Bryophytes – Riccia (gametophyte and sporophyte structure)
3. Pteridophytes – morphological and anatomical structure of sporophyte and sorus organization
4. Gymnosperms – Morphological features of Pinus (Stem, needle and cones)
5. Gymnosperms – Anatomical features of Pinus (male and female cones)
6. Angiosperms – Morphology of vegetative and reproductive structure of Malvaceae (Hibiscus rosa-sinensis as example)
7. Morphology of vegetative and reproductive structure of Solanaceae (Daturametel as example)
8. Morphology of vegetative and reproductive structure of Euphorbiaceae (Euphorbia cyathophora as example)
9. Morphology of vegetative and reproductive structure of Poaceae (Oryza sativa as example)
10. Economic botany – plants used as food and medicine
11. Field trip to nearby areas such as Rameswaram, Alagar Hills, and Sirumalai

REFERENCES

1. Sundararajan, S. 2003. Practical manual of plant morphology. Anmol publication New Delhi. (ISBN 81-261-1403-7)
2. Bendre, A. M., A. Kumar, 2006. A text book of practical botany. Vol I. Rastogi Publication New Delhi. (ISBN 81-7133-809-7)

BOT 1532 Economic Botany (4hrs/4cr.)

This course is an eye-opener for the students to recognize useful plants of their own locality and gain a good knowledge on rich plant resources. It is designed to help students to know about few ethnic communities and learn about their involvement in trade of plants and plant based products. This will help to appreciate their contribution in conservation and sustainable utilization of local plant species. Students would be encouraged to interact with a cross section of rural farming and trading communities who are indirectly or directly benefited through commercialization of local biological diversity. Every student get an opportunity to analyze the logistics and networking of local market potential. At the end of the course students will get an idea of incorporating scientific inputs and promoting value addition of locally available plant resources.

Unit 1. Crop Cultivars and Animal Breeds

Plant resources of Madurai – Market survey – Checklist of locally used, underutilized and discontinued plants- Economic potential and Geographical distribution of Miner Millets, Cereals, Pulses, Vegetables, Flowers and Wild Edible Plant Products. An overview of native breeds of Animals- Economical potential of Fodder and Feeds – Commercialization Vs.Conservation of Crops, fodders and Wild Relatives of Cultivated Crops.

Unit 2: Organic Agriculture

Local and Global Demand for Organic Products – Organic Certification – Basic Principles of Organic Farming – Biofertilzer – Manures – Biopesticides and Organic Growth Promoters – traditional water and soil management - Case Studies in Madurai - Success and Failure models – Climate Smart Agriculture Practices

Unit 3: Herbal Medicine

A Glimpses of Folk and Indian Systems of Medicine Practices and Practitioners in Madurai – Checklist of Raw Drugs and NTFPs available at Madurai - Ethnobiology of Commercially significant plants – conservation and commercialization of highly exploited plants – Local and Export Market Potential – Legal Environment of Entrepreneurship and Business development

Unit 4: Natural Fibre and Dyes

Types of Fibre - Market Potential – Handmade Cotton Sarees and Traditional Weavers of Madurai – Cotton, Coir. Agave, Jute, banana based Products – Natural dyes and locally available dye yielding plants - Classification of dyes and basic dying methods – Revitalization of eco-friendly export oriented business modules – Legal and Environmental issues

Unit 5: Natural Sweeteners and Beverages

Classification of Sweeteners –Jaggary - Palm and Cane sugars – Honey – Stevia Difference between stimulating beverages and alcoholic beverages – Coffee, Tea and a range of Herbal Teas available at Madurai – Neera(Sweet Toddy / Palm Nectar) – Homemade wine and its market potential- Local Communities and their traditional knowledge in cultivation, collection, processing and marketing – Scope for Value addition

REFERENCES

1. Chrispeels, M.J. and Sadava, D.E. (2003) Plants, Genes and Crop Biotechnology. Jones and Bartlett Publishers, ISBN 978-0763715861
2. Kochhar S.L. (2012) Economic Botany in Tropics, 4th edn. MacMilan and Co, New Delhi, India. ISBN 978-9350590676
3. Sammbamurty, A. V. S. S. (2008)Text book of Modern Economic Botany, IstEdn. CBS Publishers. ISBN 978-8123906294
4. Simpson B.B and Ogorzaly M.C.(2000) Economic Botany: Plants in Our World McGraw Hill, USA. ISBN 978-0072909388
5. Wickens, G.E (2007) Economic Botany: Principles and Practices. Panima publishing corporation, New Delhi. ISBN 978-8181285683

BOT 1434 HORTICULTURE & POST HARVEST TECHNOLOGY 4hr./4Cr

A skill based course, exclusively designed for future plant biologists, to learn the basic art of growing plants and multiplying different kinds of propagules in large numbers. While learning this course students will touch and feel and also watch the behavior of juvenile plants and appreciate their transformation in to adult plants. They will also explore the reproductive biology of the plants and understand the role of seeds and other kinds of propagules in life cycle of a Plant This course will give them a confident to nurture plants with care and add on fine skills in propagation. At the end students will gain a professional skill and also they will have a competitive edge over their counterparts.

Unit 1. Soil

Soil types (Colour, fertility, porosity): Soil organism and fumigation: Soil map of Madurai - Suitability of crop and Season; Hydroponics and other Soil-less techniques

Unit 2. Propagation & Maintenance

Sexual Propagation: Seed test, Seed dormancy, Seed treatment- Asexual Propagation: Stem, Leaf, Root, Rhizome, Bulb & Offsets; Cutting, Grafting, Budding, Layering, Pruning; Pest & Nutrient control (Organic vs Chemical) Pruning, trimming, thinning, mowing, Bonsai, etc.

Unit 3. Infrastructure / Facilities

Feasibility assessment for horticulture; Physical protection (Fence, Shade House, Greenhouse); Fertigation (Irrigation & Nutrient); Humidity control (Misting) ; Terrace and Backyard garden

Unit 4. Harvest, Post Harvest& Market

Methods and Materials used in Harvesting and processing of a selected vegetables and fruits (Banana, Mango, Grapes, Jasmine, Marigold Tomato, Onion, Garlic, Potato & Drumstick) Seasons; Techniques ; Storing (Cold, Dry, Traditional); Packing (Conventional and Pouch) Marketing & Value addition

Unit 5. Conservation policies & Ethics

Collection and Cataloging of native-gene varieties and cultural practices; Traditional cultivars and land races vs Modern breeds; contribution of growers in Conservation and Farmer's rights; Participation of ethnic communities in conservation. Role of Government and Non-Government Agencies

REFERENCES:

1. Chadha, K.L. 2012. Specifications of Handbook of Horticulture 1stEdition,ICAR, ISBN-13-9788171640065.
2. Edmon J.B., Seen T.L., Andrews F.S. Halfacre R.G (1997) Fundamentals of Horticulture. Tata McGraw Hill pub. New Delhi. ISBN 0-07-099288-6.
3. George, A. 2009. Horticulture-Principles and practices, 4th Edition, Prentice hall of India, New Delhi. ISBN-10-8120338200
4. KamaljitS Bawa, Richard B. primack,Meera Anna OOmen, (2012)Conservation Biology Universities press India pvt. Ltd. Hyderabad.
5. Raven,P.H, Evert R.F and S.E. Eichhorn. 1986. Biology of plants, Worth Pub.New York. ISBN 0-87901-315-X.
6. Text book:
   Manibhushan Rao K 2005. Text book of Horticulture, Mc Millan India Ltd. Pub. New Delhi. ISBN 1403-9281

BOT 1436 Lab II (Economic Botany and Horticulture) 4 hr./ 4 Cr.

Economic botany is taught as market based botany, students are given a chance to meet the local traders and farmers to understand the economic value of farm and forest produce available at the local Market. It is also coupled with horticulture for skill development, where students will collect seeds and vegetative propagules from the local market and conduct independent study to understand the methods of propagation and multiplication of propagules. Students are expected to get hands on experience in both Horticulture and Economic Botany

1. Designing Different grades of desktop shade houses for Terrace Gardening
2. Preparation of Album and Name lists of locally available economically important plants
3. Soil Testing and Classification
4. Food Mile Estimation at Vegetable Market
5. Seed Testing and Breaking of Seed Dormancy and Commencement ofTerrace Garden
6. Edible Plant Products Survey at Selected Grocery Stores
7. Vegetative Propagation; cutting and layering
8. Estimation of Markup at Producer, Wholesale Shops and Retail shops (Flowers/Vegetables)
9. Vegetative Propagation; grafting
10. Preparation of nature Dyes from Annato and Turmeric
11. A Survey of Tools and Instruments used in Horticulture / Raw Drug quality Assurance and Testing for Adulterants
12. Simple Post harvest /processing methods for locally available fruits

REFERENCES

1. Kochhar S.L. (2012) Economic Botany in Tropics, 4th edn. MacMilan and Co, New Delhi, India. ISBN 9789350590676
2. Sadhu, M.K., (1989) Plant Propagation, New Age International (P) Limited Publishers, New Delhi, ISBN 8122400655

BOT1236 **Nursery and Gardening** **3h./2Cr.**

This course is designed for students who have passion for collecting plants and adopting them at safe and protected areas.The course is envisaged in such a way to develop fine skills in planning for various types of gardens with specific theme and purpose. Landscaping is also added in order to enhance the scope of the course. It is a course where there is no need of any prerequisites except love and passion for plants and intelligent special perception. At the end of this course student is expected to use the given space in an intelligent manner and transform it as a thematic garden.

Unit 1: Nursery: definition, objectives and scope and building up of infrastructure for nursery,planning and seasonal activities - Planting - direct seeding and transplants.

Unit 2: Seed: Structure and types - Seed dormancy; causes and methods of breakingdormancy Sowing/raising of seeds and seedlings - Transplanting of seedlings- Seed storage: Seed banks, factors affecting seed viability, seed testing and certification.

Unit 3: Vegetative propagation: grafting, layering and cutting, selection of specimen, collecting season,treatment of cutting, rooting medium and planting of cuttings –hardening.

Unit 4: Gardening: Definition, objectives and scope - different types of garden and gardening – landscape, home and ornamental gardening - parks and their components - plant materials and design – computerapplications in landscaping

Unit 5: - Visit to Parks and Gardens – Health and Wellbeing-benefits of Gardens – Management of Gardens - People's perception and community Participation - Gardens as Open Book for Children and Education institutions. .

Reference

1. Agrawal, P.K. 1993, Hand Book of Seed Technology, Dept. of Agriculture and Cooperation, National Seed Corporation Ltd., New Delhi.
2. Bose T.K. & Mukherjee, D., 1972, Gardening in India, Oxford & IBH Publishing Co., New Delhi.
3. Edmond Musser & Andres, Fundamentals of Horticulture, McGraw Hill Book Co., New Delhi.
4. Janick Jules. 1979. Horticultural Science. (3rd Ed.), W.H. Freeman and Co., San Francisco, USA.
5. Kumar, N., 1997, Introduction to Horticulture, Rajalakshmi Publications, Nagercoil.
6. Sandhu, M.K., 1989, Plant Propagation, Wile Eastern Ltd., Bangalore, Madras.

PLANT WONDERS

BOT 1238 **3H/2C**

This course is aimed to impart knowledge on plants to non science students. It introduces the microscopic to giant Angiosperms of the plant kingdom. Students will learn about different groups of plant, basic plant processes and their contributions to the human being. Uniqueness of plants in terms of size, shape, habitat and their associations will be highlighted. They will develop a desire to further explore the plant kingdom and also to conserve plants.

UNIT I **Vistas in Botany:**
Plants and civilization: Difference between plants and animals – Plants and man- Plants as source of energy, fuel and food – staple food and life saving drugs - Plants in protection of environment.

UNIT II **Plant groups:** key characters and importance of - Algae, Fungi, Bryophytes, Pteridophytes, Gymnosperms and Angiosperms.

UNIT III **Circulatory systems in plants**: conduction of water – conduction of food – pipe line organization.

UNIT IV **Plants of curiosity:**
Magnitudes of plants and their parts: Tallest, largest, oldest and smallest plants – magnitudes in flowers, leaves and fruits.

UNIT V **Amazing plants**: Epiphytes – Parasites - Insectivores – modes of dispersal (Animophily, Hydrophily, Entamophily, Ornithophily, Myrmecophily) – Aromatic plants, orchids and Cacti.

REFERENCES

1. Pandey B.P. 2005 Collage Botany : Vol I, 5th edn. S.Chand &Company LTD. New Delhi. ISBN -81-219-0593-1
2. Raven PH Evert RF and Eichhorn SE 2013. Biology of plants. VIIIth Ed. W.H. Freeman Publishers, 1464113513.
3. Santna, S.C..Chatterjee, T.P and A.P. Das 2004 Collage Botany Practical (Vol II) New Central Book Agency (P) KolKatta. ISBN -81-7381-320-5
4. Starr,C. 2007. Biology : concepts and applications. VI edn. ISBN 81-315-0284-8

BOT 1438 **PLANT BIOLOGY II** **3+2H/4C**

This course gives broader understanding of life process, which is inherent and unique to plants. It will offer knowledge on various functional events including water and mineral uptake, transport of photosynthates, growth & development and nitrogen fixation which are vital to sustain life on earth. . The course also has a lab component to have a hand on experience of verifying the theory under natural setting. At the end of the course students will be able to appreciate the plant as the only system, which is equipped to capture light energy and convert it into usable energy for sustaining life on earth.

UNIT 1: Water relations:Pipeline systems in plants: Water potential, Guttation, Imbibition, Osmosis, Active transport, Passive transport and Carrier mediated transport. Tissue organization – xylem, phloem and their physiology.

UNIT 2: Ventilating systems: Stomata, hydathodes, transpiration, evaporation, convection and photorespiration.

UNIT 3: Photobiology: Photosynthetic pigments, Photosynthetic electron transport, exploring the path of carbon in photosynthesis, photoperiodism, phytochromes, cryptochromes and photomorphogenesis

UNIT 4: Nitrogen metabolism: Nitrogen fixation – symbiotic, asymbiotic, Nitrogen fixing Organisms.

UNIT 5: Growth and development: Plant hormones – growth promoters - auxin, gibberelin, cytokinins - growth inhibitors – ethylene, ABA - Plant Movements - nastic and tactic movements

REFERENCES

1. Bidwell. R. G. S. 1975. Plant physiology. Macmillan Publishing Co. INC. New York. ISBN-0-02-309430-3
2. Ghosh. M. S. 1996. Plant physiology. (Ist Central Edition). New Central Book Agency (P) Ltd. ISBN 81-7381-478-3
3. Salisbury. F. B. & Ross C.W. 1992. Plant Physiology. Fourth Edition. Eastern Press. Bangalore. ISBN-981-243-853
4. Sinha. R. K. 2004. Modern plant physiology. Narosa Publishing house New Delhi. ISBN 81-7319-333-9
5. Srivastava. H. S. 2005. Plant physiology Rastogi Publications Meerut. ISBN 81-7133-785-6
6. Williams. M. B. 1984. Advanced Plant Physiology. Pitman Publishing New Zealands Ltd. Wellington.ISBN-0-273-02306-3

PLANT BIOLOGY II (Lab)

1. Ascent of sap (Ringing and Girdling experiment)
2. Osmosis using potato osmometer
3. Plasmolysis using Onion peel &Tradescantia leaf.
4. Measurement of (DPD) Diffusion Pressure Deficit using potato tubers
5. Transpiration using potted plant & bell jar, cobalt chloride method to compare thetranspirational rates
6. Transpiration: demonstration on the loss of weight using Ganong'spotometer)
7. Evolution of O2 during photosynthesis using Wilmott bubbler counter.
8. Effect of different wavelength of light during photosynthesis
9. Measurement of growth using auxanometer.
10. Phototropism &Gravitropism using a potted plants and clinostat.
11. Methods of studying plants nutrition – Hydroponics
12. Symbiotic nitrogen fixation – sectioning of legume root nodule

REFERENCES

1. Kumar B. 2006. A Text book of practical botany. Rastogi Publication. Meerut.ISBN 81-7133-809-7
2. Santra. S.C..Chatterjee.T. P.& Das A. P. 2005. College Botany-Practical. Vol-I. New Central Book Agency (P) Ltd. India ISBN-81-7381-357-4

UG DEPARTMENT OF ZOOLOGY
Choice Based Credit System

Program for B.Sc. Zoology– 2015-2016 onwards

SEM	Part	Course No.	Course Title	Hours	Credits	Marks
1	I	TAM/FRE/HIN/ 0000		3	2	30
1	II	ENG 1201	Conversational Skills	3	2	30
1	IIIC	ZOO 1621	Invertebrata	6	6	90
1	IIIC	ZOO 1223	Invertebrata Laboratory	2	2	30
1	IIIC	ZOO 1531	Cell Biology (Theory cum Lab)	(3+2) 5	5	75
1	IIIS	BOT 0000	General Botany-I	(3+2) 5	4	60
1	IVE	NME 0000	Non-Major Elective 1	3	2	30
1	IVLS	XXX0000	Life Skill course – I	3	2	30
1	V	XXX 0000 or XXX 0000	NCA/NCN/NSS or Extension activity SLP			
			Total	30	25	375
2	I	TAM/FRE/HIN/0000		3	2	30
2	II	ENG 1202	Reading & Writing Skills	3	2	30
2	IIIC	ZOO 1622	Chordata	6	6	90
2	IIIC	ZOO 1224	Chordata Laboratory	2	2	30
2	IIIC	ZOO 1532	Economic Zoology(Theory cum Lab)	(3+2) 5	5	75
2	IIIS	BOT 0000	General Botany-II	(3+2) 5	4	60
2	IVE	NME 0000	Non-Major Elective 2	3	2	30
2	IVLS	XXX 0000	Life Skill course – II	3	2	30
2	V	XXX 0000 or XXX 0000	NCA/NCN/NSS or Extension activity SLP			
			Total	30	25+1	375/390
3	I	TAM/FRE/ HIN/0000		3	2	30
3	II	ENG 2201	Study Skills	3	2	30
3	III C	ZOO 2623	Microbiology (Theory cum Lab)	(4+2) 6	6	90
3	III C	ZOO 2625	Animal Physiology (Theory cum Lab)	(4+2) 6	6	90
3	III C	ZOO 2433	Genetics	4	4	60
3	III C	ZOO 2335	Evolution	3	3	45
3	III S	CHE 0000	General Chemistry-I	5	4	60
3	V	XXX 0000 or XXX 0000	NCA/NCN/NSS or Extension activity SLP			
			Total	30	27	405

SEM	Part	Course No.	Course Title	Hours	Credits	Marks
4	I	TAM/FRE/ HIN/0000		3	2	30
4	II	ENG 2202	Career Skills	3	2	30
4	III C	ZOO 2624	Biological Chemistry (Theory cum Lab)	(4+2) 6	6	90
4	III C	ZOO 2626	Ecobiology (Theory cum Lab)	(4+2) 6	6	90
4	III C	ZOO 2428	Molecular Biology	4	4	60
4	III C	ZOO 2330	Molecular Biology Laboratory	3	3	45
4	III S	CHE 0000	General Chemistry-II	5	4	60
			Total	**30**	**27+1**	**405/420**
5	III C	ZOO 3637	Immunology (Theory cum Lab)	(4+2) 6	6	90
5	III C	ZOO 3639	Entomology (Theory cum Lab)	(4+2) 6	6	90
5	III C	ZOO 3641	rDNA technology (Theory cum Lab)	(4+2) 6	6	90
5	III C	ZOO 3543	Developmental Biology (Theory cum Lab)	(3+2) 5	5	75
5	IV LS	XXX 0000	Life Skill course-III	3	2	30
5	IV	ZOO 0000	Environmental Studies	4	2	30
			Total	**30**	**27**	**405**
6	III C	ZOO 3838	Biotechnology (Theory cum Lab)	(5+3)8	8	120
6	III C	ZOO 3440	Nanobiology	4	4	60
6	III C	ZOO 3642	Biodiversity (Theory cum Lab)	(4+2) 6	6	90
6	III C	ZOO 3544	Bioinformatics (Theory cum Lab)	(3+2) 5	5	75
6	IV LS	XXX 0000	Life Skill course – IV	3	2	30
6	IV VE	VAL 0000	Value Education	4	2	30
			Total	**30**	**27**	**405**
			Grand Total for Semester I – VI	**180**	**158+2**	**2370/ 2400**

C: CORE S: SUPPORTIVE E: NON MAJOR ELECTIVE LS: LIFESKILL VE: VALUE EDUCATION

Courses offered by the Department of Zoologyto Non-Major Students

Part III Supportive

SEM	Course No.	Course Title	Hrs.	Cr	Marks
III	ZOO 2447	General Zoology – I Theory cum Lab	(3+2) 5	4	60
IV	ZOO 2448	General Zoology – II Theory cum Lab	(3+2) 5	4	60
		Total	**10**	**8**	**120**

Part IV Non-Major Electives

SEM	Course No.	Course Title	Hrs.	Cr	Marks
I	ZOO 1251	Human Biology	3	2	30
II	ZOO 1252 or ZOO 1254	Forensic Biology or Apiculture	3	2	30
		Total	**6**	**4**	**60**

Part IV: Life Skill Courses

SEM	Course No.	Course Title	Hrs.	Cr	Marks
I	ZOO 1249	Poultry Farming	3	2	30
II	ZOO 2252	Ornamental Fish Culture	3	2	30
V	ZOO 3255 or ZOO 3257	Medical Lab Technology or Ornithology	3	2	30
VI	ZOO 3258	Human Reproduction and Conception Control	3	2	30
		Total	12	8	120

ZOO 1621 **Invertebrata** **(6h/wk) (6cr)**

This theory course provides basic knowledge about the general characteristic features and classification of invertebrate phyla up to class level. A specific animal will be studied in detail as a typical representative for each phylum. General topics of importance in each phylum will be taught.

1. **Protozoa:** Levels of organization – Binomial nomenclature – outline classification up to phylum with examples – general characteristics – classification up to class level with examples – *Paramecium* sp. – life cycle of *Plasmodium* sp. – nutrition, reproduction and protozoan diseases.

2. **Porifera and Coelentrata:** General characteristics – classification up to class level with examples – Porifera – *Scypha* sp. – spicules – canal system – Coelenterata – *Obelia* sp. – asexual reproduction – Biology of corals and coral reefs – asexual reproduction.

3. **Platyhelminthes, Aschelminthes and Annelida:** General characteristics and classification up to class level with examples - Platyhelminthes, Aschelminthes and Annelida – *Taenia* sp. – Parasitic adaptations – life cycle – *Ascaris* sp. – *Pheretima* sp. – economic importance.

4. **Arthropoda and Mollusca:** General characteristics and classification up to class level with examples – Arthropoda and Mollusca – *Penaeus* sp. – *Pila* sp. – torsion – larval forms – Crustaceans.

5. **Echinodermata and Minor Phyla:** General characteristics and classification up to class level with examples – Echinodermata - *Asterias* sp. – water vascular system – larval forms – Echinodermata – habit – habitat – distribution – nutrition – special characteristics of Ctenophora – Ectoprocta – Endoprocta – Rotifera – connecting links – *Limulus, Peripatus.*

Textbook

Jordan EL and PS Verma (2013) Invertebrate Zoology, S. Chand & Co Ltd, New Delhi.

References

Agarwal VK (2000) Invertebrate Zoology, First Edition, S. Chand and Co, Ltd, New Delhi.

Ayyar E (1993) Manual of Zoology Vol.I-Invertebrata, S.Viswanathan (Printers & Publishers) Pvt, Ltd, Chennai.

Kotpal RL (2014) Modern Textbook of Zoology Vertebrates. 11th Edition, Rastogi Publishers, Meerut.

Kotpal RL (2003) A Text book of Minor Phyla. 11th Edition, Rastogi Publications, Meerut.

ZOO 1223 **Invertebrata Laboratory** **(2h/wk) (2cr)**

The invertebrata laboratory includes Identification and adaptation of animals classified under the following phyla

- Protozoa
- Porifera
- Coelenterate polyp and medusoid forms
- Corals
- Platyhelminthes
- Aschelminthes
- Annelida
- Minor phyla (Ctenophora – Ectoprocta – Endoprocta – Rotifera)
- Arthropoda
- Mollusc
- Echinoderm
- Preparation of protozoan cultures, and making permanent slides

Field study

- Observation of Terrestrial invertebrate
- Economically important invertebrates

References

Agarwal VK (2000) Invertebrate Zoology, S. Chand and Co, Ltd, New Delhi.

Ayyar E (1993) Manual of Zoology Vol. I - Invertebrata, S. Viswanathan (Printers & Publishers) Pvt., Ltd, Chennai.

Lal SS (2014) Practical Zoology Invertebrates, 11th Edition, Rastogi Publications, Meerut.

ZOO 1531 **Cell Biology (Theory cum Lab)** **(3+2=5hrs)** **(3+2=5Cr)**

The course is designed to enable the students to learn - principles and applications of tools and techniques used in cell biology -the structure and functions of cell membrane, cell organelles and phases and mechanisms involved in mitosis and meiosis. Emphasis is also given to the study of cancer cells.

1. **Microscopy and microtechniques:** Magnification and resolving power of microscope – Light, Phase contrast and Electron microscopy – measurement of cells – Fundamentals of microtechniques (cell fractionation, fixation, stains and staining methods).

2. **Structure of cells and cell membranes:** Milestones, cell theory, protoplasm theory, Structure of prokaryotic and eukaryotic cells – Plasma membrane, fluid mosaic model, transport mechanisms – cytoplasmic matrix and vascular system.

3. **Cellular components:** Cellular components and their structure, composition and function — Endoplasmic reticulum, Golgi complex, Ribosomes – ultrastructure and function – Lysosomes – types, functions and significance.

4. **Mitochondria and Nucleus:** Mitochondria – organization and function – Nucleus – nucleoplasm, nuclear membrane, nuclear pore complex, nucleolus – Organization and significance of chromatin, chromosomes, giant chromosomes.

5. **Cell cycle and Cell Division:** Cell cycle – control of cell cycle – Mitosis – Meiosis – chromosomal movement – centrioles and microtubules – cancer cells.

Laboratory exercises include

- Microscope – parts, function and magnification principle
- Observation of specialized cells (nerve cell, muscle cell etc)
- Micrometry
- Outline sketch of cells using Camera Lucida
- Permanent slide preparation I – principle, killing and fixation, dehydration, embedding
- Permanent slide preparation II – sectioning, staining, mounting
- Study of mitosis using onion root tip
- Preparation of giant chromosomes from salivary glands of Chironomous larvae
- Plasmolysis – with different plant cells with different NaCl and sucrose solution concentration
- Hemolysis I – Principle, influence of NaCl solution of various concentrations
- Hemolysis II – Influence of temperature, molecular size, organic solvents
- Observation of cell division stages using permanent slides

Text Book

De Robertis EDP and De Robertis EMF (1996) Cell and Molecular biology. 8th Edition. BI Waverly Pvt. Ltd. New Delhi.

References

Karp G (2013) Cell Biology, 7th Edition, International Student Version, John Wiley & Sons, Inc.

Cooper GM and Hausman RE (2007) The cell a molecular approach. 4th Edition, ASM Press. Washington DC.

ZOO 1622 **Chordata** **(6hrs/wk) (6cr)**

This course provides a general and basic understanding of chordates. It discusses the diversity, adaptations, affinities, organisation, comparative study and taxonomic status of chordates. Type study for each class is also included.

1. **Chordata and Prochordata:** Salient features – outline classification of phylum chordata up to class level with examples – Prochordates – classification – *Amphioxus* sp., *Balanoglossus* sp. and *Ascidian* sp. – life history – affinities – retrogressive metamorphosis.

2. **Agnatha and Pisces:** Classification up to orders with examples – *Petromyzon* sp.– life history, comparison between lampreys and hag fishes – scales – fins – *Scoliodon* sp. Electric organs – parental care – migration – economic importance of fishes – accessory respiratory organs – fishery resource of South India.

3. **Amphibia and Reptilia:** Origin – evolutionary tree – classification up to orders with examples – adaptive features of Anura, Urodela, Apoda – *Rana* sp.– parental care – *Calotes* sp. – status of *Sphenodon* sp. – identification of poisonous and non-poisonous snakes – biting mechanisms – poison apparatus – venom – Jacobson's organ – South Indian amphibians and snakes.

4. **Aves and Mammalia:** Classification up to orders with examples – flight adaptations – migration, adaptive radiation of beaks and feet – characters of *Archaeopteryx* – features of Ratitae – *Columba* sp., *Rattus* sp. – adaptation of aquatic mammals, flying mammals – dentition and adaptive radiation in mammals – economic importance – South Indian birds and mammals.

5. **Comparative anatomy:** Integument and its derivatives – endoskeleton – skull, girdles – digestive system – respiratory system – circulatory system – urinogenital system – nervous system – sense organs.

Textbook

Jordan EL and Verma PS (2013) Chordate Zoology, S.Chand & Co Ltd., New Delhi.

References

Romer AS (1992) The vertebrate body, 3rd Edition,Vakils, Fefer and Simons Pvt. Ltd, Mumbai.

Ayyar E (1982) Manual of Zoology Vol.II-.S.Viswanathan (Printers & Publishers) Pvt. Ltd., Chennai.

Kotpal RL (2014) Modern textbook of Zoology Vertebrates. 3rd Edition Rastogi Pubications, Meerut.

Saxena RK and Saxena S (2008) Comparative anatomy of vertebrates. Viva books Pvt. Ltd., New Delhi.

ZOO 1224 **Chordata Laboratory** **(2/wk) (2cr)**

The laboratory course is aimed to identify, describe and classify chordate specimens in the museum and in the field. It will help the students to appreciate the diversity in the animal kingdom. The Laboratory exercises include:

Identification of

- Prochordates
- Agnathans
- Chondrichthyes
- Osteichthyes
- Amphibians
- Reptiles
- Birds
- Mammals
- Skull
- Girdles
- Vertebrae

Field study

- Campus study of birds
- Visit to CMFRI Mandapam
- Visit to Guindy National park and Crocodile bank, Chennai
- Wetlands Bird study

References

Kotpal RL (2014) Modern textbook of Zoology Vertebrates. 3rd Edition Rastogi Pubications, Meerut.

Lal SS (2014) Practical Zoology Vertebrates. 11th Edition, Rastogi Publications, Meerut.

ZOO 1532 **Economic Zoology (Theory cum Lab)** **(3+2=5 hr/wk) (5cr)**

This course is designed to make the students understand the technical and commercial aspects of rearing edible freshwater fish, shrimps, cattle, pig, poultry and earthworms.

1. **Edible Freshwater Fish Culture:** Aquaculture - salient features - types - farming practices -cultivable fishes - major carps - exotic carps - minor carps - murrels - cat fishes - pond preparation - management. Composite fish culture. Fishery byproducts.

2. **Shrimp farming:** Biology - cultivable species - methods of culture-pond site - artificial breeding - live feeds - hatchery management.

3. **Dairy and Pig farming:** Breeds of cow, buffalo, goat and pig. Breed improvement - cross - breeds. Milch cattle - reproduction. Dairy Products - milk processing - Piggery management and products.

4. **Poultry Farming:** Breeds - layers - broilers. Methods of poultry keeping - food and feeding -management. Egg. Diseases of Poultry - Ranikhet, Coccidiosis, Fowl Cholera and Aspergillosis

5. **Vermiculture:** Earthworm - varieties - biology - optimal conditions for culture - culture practices - vermicompost - vermicast - vermiwash.

Laboratory exercises include

- Identification of commercially important fresh water fishes.
- Gut content analysis of fish with different feeding habits.
- Morphomertic measurement of fishes.
- Preparation of fish pituitary extract
- Identification of spawn, fry and fingerlings of Rohu, Catla and Mrigal
- Identification of fish diseases and parasites
- Identification of commercially important shrimps.
- Gut content analysis of shrimps.
- Breeds of cattle.
- Natural and artificial feed formulation for cattle.

- Dairy products.
- Breeds of pig.
- Pigsty maintenance- disinfection, vaccination.
- Byproducts of pig farm.
- Breeds of poultry.
- Poultry house maintenance.
- Poultry diseases.
- Varieties of earthworms.
- Analysis of nutrients in vermicompost.
- Effect of vermicompost on the growth of plants.
- Visit to fish, shrimp, pig, dairy and vermiculture farms

Textbook

Jaiswal V and Jaiswal KK (2014) Economic Zoology. PHI Learning Private, Limited, Delhi, India.

References

Pandey K and Shukla JP (2005) Fish and Fisheries. Rastogi Publications, Meerut, India.
Gnaanamani MR (2003) Modern Aspects of Commercial Poultry keeping, Giri Publication, Madurai, India.
Nigam HC (1996) Modern Trends in Biology. Shoban Lal Nugin Chand and Co, Jalandhar, India.
Ismail SA (1997) Vermicology – The biology of earthworms. Orient Longman Ltd., Chennai.
Edwards CA and Bohlen PJ (1996) Ecology of earthworms. 3rd edition, Chapman and Hall, London.

ZOO 1251 **Human Biology** **(3h/wk) (2cr)**
(Non-Major Elective)

This course is offered to give a basic understanding of human anatomy and physiology. Functioning of digestive, respiratory, circulatory, nervous, endocrine, immune, excretory and reproductive systems in man will be taught.

1. **Skin, Skeleton and Muscles:** Skin –structure and functions – skeleton-bones, cartilage, joints – ligaments – muscles-types – muscle contraction – skin diseases.

2. **Nutrition and Digestion:** Vitamins, minerals, balanced diet – calorific value of foods; Digestive organs – secretions, digestion and absorption – gastric disorders.

3. **Respiratory and Circulatory systems:** Structure and functions of lungs and heart – Hemoglobin and respiratory gas exchange – blood circulation – blood components –blood groups – Tuberculosis – Atherosclerosis.

4. **Endocrine, Nervous and Immune systems:** Endocrine glands and secretions – hyper and hypo secretory disorders – structure and functions of brain – Sense organs– Immune system, types of immunity.

5. **Excretory and Reproductive systems:** Kidney – structure and function –Male and female reproductive organs – Sex hormones – renal disorders.

Text book

Widmaier E, Raff H and Strang K (2014) Vander's Human Physiology. Mc Graw Hill Education, New York.

References

Sherwood L (2008) Human Physiology: from cells to systems. 7th Edition, Brooks/Cole: Cengage Learning, Canada.

Davies A, Blakeley AGH and Kidd C (2001) Human Physiology, Churchill Livingstone, Toronto.

ZOO 1249 **Poultry Farming (Life Skill Course)** **(3h/wk) (2cr)**

This is an economically important and job oriented course. It deals with different aspects of poultry biology, breeds, housing equipment, nutrition management, diseases and Entrepreneurial skills.

1. **Biology of Fowl:** External features – digestive and reproductive systems – poultry industry in India – 5 year plans – poultry manure – NECC – role of egg and meat in human nutrition –economic importance.

2. **Breeds of Layers and Broilers:** Classification – Indian and exotic breeds – production of commercial laying stock – cross breeds – sexing in one day old chicks – popular breeds of layers and broilers in India.

3. **Housing and Equipment:** Location of the farm – construction of poultry sheds – layout of broiler and layer farms – 1 +3 – housing system, All – in and all out system – deep litter system – cage rearing – waterer – feeder – nest box – brooders – dropping pit.

4. **Nutrition and Management:** Energy – carbohydrates – fats – proteins – vitamins – minerals – feed stuff – feed formulation – non nutritive feed additives – feed grinder – home made mineral mixture of feed for chick – grower – layer – broiler and finisher – Incubation – management of growers – layers – summer and winter management – forced moulting – debeaking – culling – marketing.

5. **Diseases:** Bacterial, fungal and viral diseases – transmission – symptoms – treatment – vaccination – antibiotics – nutritional deficiencies – Entrepreneurship – funding agencies – visit to poultry farm.

Textbook

Gnaanamani MR (2003) Modern Aspects of Commercial Poultry Keeping. 9th Edition, Giri Publications, Madurai.

References

Chauhan HVS and Roy S (2007) Poultry Diseases, Diagnosis and Treatment. 3rd Edition, New Age International, New Delhi.

Jaiswal V and Jaiswal KK (2014) Economic Zoology, PHI Learning Private Limited, New Delhi.

Jull MA (1976) Poulty Husbandry. 3rd Edition, Tata McGraw Hill Publishing Company Ltd. New Delhi.

ZOO 1252 **Forensic Biology (Non-Major Elective)** **(3hr/wk) (2cr)**

This course deals with the scientific methods of crime investigation. It contains collection, identification and preservation of physical evidences. The course dwells on fire arms, tool marks and impressions, finger prints, wounds and sexual offences. Forensic entomology, drugs and food poisons are comprehensively included.

1. **Evidences:** Classification – identification – comparison – collection methods – preservation of hair, nail, fiber, paint, glass, soil etc. – socio-economic offences.

2. **Fire arms, tool mark and impressions:** Fire arms – bullet comparisons – cartridge cases –gun powder residues – primer residues – collection and preservation of fire arm evidences – tool marks and impressions.

3. **Finger prints, blood, wounds, lethal and sexual offences:** Dermatoglyphics – henry system – primary classification – computerized prints –digital forensics – types of injuries, wounds and signs in sexual and non-sexual offences – symptoms of death – time of death – post-mortem changes – blood stains – blood grouping – semen analysis – disputed paternity – DNA tests – case study.

4. **Forensic Entomology:** Insects of forensic importance – sarcophagi – venoms and poisons – methods employed for forensic purposes – forensic lab visit.

5. **Drugs and food poisons:** Classification – sources of drugs, narcotics, cosmetics and abortifacients – physiological and psychological effects – withdrawal syndrome – signs of food poisoning – types of poisons – medico legal cases.

Textbook

Parikh CK (1999) Parikh's textbook of medical jurisprudence, forensic medicine and toxicology. 7th Edition, CBS Publishing and distributors, New Delhi.

References

Saferstein R (1978) Criminalistics, an introduction to forensic science. Prentice Hall of India, New Delhi.

Simpson K (1979) Forensic Medicine. 8th Edition, ELBS, London.

ZOO 1254 **Apiculture** **(3h/wk) (2cr)**
(Non-Major Elective)

This course aims to give a basic understanding of the biology, rearing and management of honeybees. It includes the study of interaction of bees with plants, their diseases and prospects of apiculture. It imparts knowledge in various aspects of bee keeping.

1. **History**: Bee keeping past and present – present status of apiculture in India – life of Lorenzo Langstroth – bees in warfare – economic importance – Types of honeybees – wild bees

2. **Biology**: Bee colony – castes – morphology – anatomy – division of labour – communication – habit of field bees – queen bee insemination – artificial mating.

3. **Pasturage and Rearing**: Nectar composition – bee foraging – bee flora of India – types of bee hive – queen rearing, management – bee keeping equipment – seasonal maintenance – honey extraction.

4. **Diseases**: Natural enemies – infection – diseases – signs and symptoms– causes – transmission – control.

5. **Prospects of Apiculture**: Bee hive products – uses of honey – wax – bee venom – propolis – royal jelly. Entrepreneurship – preparing proposal for financial assistance – funding agencies – field visits.

Textbook

Abrol DP (2013) A comprehensive guide to bees and bee keeping. Scientific publishers, New Delhi, India.

References

Bailey L and Ball BV (1991) Honey bee pathology. 2nd Edition. Academic press, London.
Graham JM (1992) The hive and the honey bee. Dadant & Sons, Illinois.
Mishra RC (1995) Honeybees and their management in India. ICAR pub, New Delhi.

ZOO 2252 **Ornamental Fish Culture** **(3h/wk) (2cr)**
(Life Skill Course)

This course deals with the basic and applied aspects of ornamental fish culture. Various freshwater and marine ornamental fishes, breeding techniques and wild collections are dealt with. Ornamental aquatic plants are also included along with diseases and economic importance.

1. **Aquarium keeping:** Types of aquaria–freshwater and marine species–setting up–aquarium plants–accessories–maintenance.

2. **Popular ornamental fishes:** Biology, sexing, courtship, feeds and feeding, breeding and mass production of fresh water fishes–gold fish, gouramy, angel fish and koi carps breeding – rearing of marine anemone fish and damsel fish – wild collections

3. **Breeding and Hatchery:** Wild seed collection techniques and rearing. Seed production techniques–induced maturation–spawning–rearing.

4. **Ornamental invertebrates:** Marine invertebrates species – culture of corals – keeping and maintenance of echinoderms and molluscs in aquarium – marine aquarium management.

5. **Diseases and economics:** Common diseases – disease control measures and cure – aquarentine tanks – conditioning, packing and transport methods – Entrepreneurship – agencies involved in popularization and extension – maintaining pet shops and purchasing aquarium accessories – field visits.

Text book

Yadav BN (2006) Fish and fisheries. 4th Edition. Daya Publishing house, New Delhi.

References

Axelrod HR (1967) Breeding aquarium fishes. TFH publication Inc., England.

Santhanam R, Sukumaran N and Natarajan P (1990) A manual of freshwater aquaculture. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi

Cato JC and Brown CL eds. (2003) Marine ornamental species: collection, culture and conservation. Blackwell Publishing, Ames, Iowa.

PROGRAMME/COURSE FRAME
UG DEPARTMENT OF ECONOMICS
Choice Based Credit System (CBCS) Programme from 2015-16

Sem	Part	Course No	Course Title	Hours	Credits	Marks
1	I	TAM/FRE/HIN		3	2	
1	II	ENG 1201	Conversational Skills	3	2	
1	III C	ECO 1531	Micro Economics I	5	5	
1	III C	ECO 1433	Economic Statistics I	4	4	
1	III C	ECO 1435	History of Economic Thought	4	4	
1	LS I	ECO 1237	Decision Making and Goal Setting	3	2	
1	E	ECO 1239	Population Dynamics	3	2	
1	S	MAT	Mathematics for Economics	5	4	
		TOTAL		**30**	**25**	
2	I	TAM/FRE/HIN		3	2	
2	II	ENG 1202	Reading & Writing Skills	3	2	
2	III C	ECO 1532	Micro Economics II	5	5	
2	III C	ECO 1434	Economic Statistics II	4	4	
2	III C	ECO 1436	Tamil Nadu Economy	4	4	
2	LS II	ECO 1238	Skills for Work Effectiveness	3	2	
2	E	ECO 1240	Health Economics	3	2	
2	S	MAT	Fundamentals of Computer Application	5	4	
2	Part V	XXX 0000	Extension Activity (PED/NSS/NCC/SLP)	2	1	
		TOTAL		**30**	**25+1**	
3	I	TAM/FRE/HIN		3	2	
3	II	ENG 2201	Study Skills	3	2	
3	III C	ECO 2531	Macro Economics I	5	5	
3	III C	ECO 2533	Public Finance	5	5	
3	III C	ECO 2535	International Trade	5	5	
3	III C	ECO 2437	Mathematical Economics I	4	4	
3	S	ECO 2539	Entrepreneurial Development	5	4	
		TOTAL		**30**	**27**	
4	I	TAM/FRE/HIN		3	2	
4	II	ENG 2202	Career Skills	3	2	
4	III C	ECO 2532	Macro Economics II	5	5	
4	III C	ECO 2534	Monetary Economics	5	5	
4	III C	ECO 2536	Trade Documentation	5	5	
4	III C	ECO 2438	Mathematical Economics II	4	4	
4	S	ECO 2540	Industrial Strategies	5	4	
4	Part V	XXX 0000	Extension Activity (PED/NSS/NCC/SLP)	2	1	
		TOTAL		**30**	**27+1**	

Sem	Part	Course No	Course Title	Hours	Credits	Marks
5	III C	ECO 3631	Indian Economics I	6	6	
5	III C	ECO 3633	Development Economics and Planning	6	6	
5	III C	ECO 3635	Environmental Economics	6	6	
5	III C	ECO 3537	Econometrics I	5	5	
5	LS	ECO 3239	Economic Journalism	3	2	
5	VAL	VAL	Value Education	4	2	
		TOTAL		**30**	**27**	
6	III C	ECO 3632	Indian Economics II	6	6	
6	III C	ECO 3634	Financial Market and Services	6	6	
6	III C	ECO 3636	Labour Economics	6	6	
6	III C	ECO 3538	Econometrics II	5	5	
6	LS	ECO 3240	Personal Empowerment	3	2	
6	EVS	EVS	Environmental Studies	4	2	
		TOTAL		**30**	**27**	
		Grand Total		**180**	**158+2**	

ECO 1531 **MICRO ECONOMICS- I** **5 Hrs / 5 Cr**

The objective of this course is to enable the students to understand the principles of economics and to obtain economic reasoning.

The course is about micro decision making in households and firms.

Unit I: Introduction

Definitions of Economics - Fundamental Questions - Production Possibility Frontier - Economic Systems – Divisions of Economics: Micro and Macro - Sub-Divisions – Production, Consumption, Exchange, Distribution, Approaches: Positive Vs. Normative, Pure Vs. Applied, Static Vs. Dynamic Vs. Comparative Static, Deductive Vs. Inductive.

Unit II: Consumer Behaviour

Consumer Vs. Producer, Nature of a Consumer, Cardinal Vs Ordinal Utility - Marginal Utility Analysis; Law of Diminishing Marginal Utility - Principle of Equi-Marginal Utility - Consumer's Equilibrium – Indifference Curve (IC) Analysis: Properties of IC – Consumer Equilibrium - Consumer's Surplus - Law of Demand - Exceptions to Law of Demand - Determinants of Demand - Elasticity of Demand: Concepts and Types - Measurement – Determinants of Elasticity

Unit III: Production Behaviour

Factors of Production: Land, Labour, Capital and Organization - Characteristics of Factors of Production - Production Function Analysis: Isoquants - Iso-Cost Line – Producer's Equilibrium - Expansion Path.

Unit IV: Theory of Production

Theories: Law of Diminishing Returns - Law of Variable Proportion – Laws of Returns to Scale: Constant, Increasing and Decreasing Returns to Scale - Scale of Production - Law of Supply - Determinants of Supply.

Unit V: Cost and Revenue Behaviour

Cost Concepts: Fixed Cost, Variable Cost, Total Cost, Marginal Cost, Average Cost – Cost Curves (Short-run and Long-run) - Relationship between AC and MC. Revenue Concepts: Total Revenue, Average Revenue and Marginal Revenue – Revenue Curves - Relationship between AR and MR Curves.

Text Books

1. John Kennedy, (2013), *Micro Economics*, Himalaya Publications, Mumbai.
2. Ahuja, H.L., (2012), *Principles of Micro Economics*, S. Chand and Company, New Delhi.
3. Jhinghan, M. L., (2013), *Modern Micro Economics*, Vrinda Publications, New Delhi.
4. Gurusamy, M.P., (2010), *Micro Economics* (Tamil) Thenmozhi Publications, Thruchendur

References

1. Campbell Mc Connell, (2006), *Economics: Principles, Problems and Policies*, Mc Graw Hill, New Delhi.
2. John Solomon, (2007), *Economics*, Prentice Hall, New Delhi.
3. Case, and Fair, (2007), *Principles of Economics*, Prentice Hall, New Delhi.
4. Samuelson and Nordhaus, (1998), *Economics*, Tata Mc Graw Hill, New Delhi.
5. Mc Connell, C.R and Gupta H.C., (1987), *Introduction to Micro Economics*, Tata Mc Graw Hill, New Delhi.

ECO 1433 ECONOMIC STATISTICS- I 4 Hrs / 4 Cr

The aim of this course is to help learn statistical techniques and to develop the skill of statistical treatment to economic analysis.

The course pertains to collection, presentation and analysis of data.

Unit I: Introduction

Definition, Scope, characteristics functions of statistics, importance of statistics in the various disciplines - limitation of statistics. Statistical survey – Stages in collecting statistical survey - data collection-primary and secondary methods - sampling methods merits and demerits - various types of sampling.

Unit II: Presentation of Data

Classification, meaning, different types of classification - construction of a frequency distribution table cumulative frequencies – tabulation - meaning, parts - types - uses and limitations. Diagrammatic presentation: bar diagrams - pie diagram - pictograms. Graphical Presentation: histogram - frequency polygon - frequency curves - Ogives and their uses.

Unit III: Measures of Central Tendency and Dispersion

Averages: definition - types: arithmetic mean - median - mode - geometric mean - harmonic mean - weighted average - merits and demerits - essential characteristics of a good average - use of the averages. Quartiles, Deciles and Percentiles - Dispersion – meaning – methods, Range - quartile deviation - mean deviation – standard deviation - Lorenz curve - practical utility.

Unit IV: Skewness and Kurtosis

Skewness: Meaning - absolute and relative measures of skewness - Karl Pearson Bowley and Kelly's - diagram showing skewness - uses. Kurtosis: Meaning – Types – methods of measuring Kurtosis.

References

I. Gupta, S.P (2012), *Statistical Methods*, Sultan Chand Publications, New Delhi.

2. Arora, P. N., Sumeet Arora and S. Arora (2007), *Comprehensive Statistical Methods*, Sultan Chand Publications, New Delhi.

3. Pillai, R.S.N and V. Bagavathi, (2007), *Statistics*, S. Chand and Company Limited, New Delhi.

4. Agarwal, D.R., (2006), *Business Statistics*, Vrinda Publications (P) Limited, New Delhi.

ECO 1435 HISTORY OF ECONOMIC THOUGHT 4 Hrs/ 4 Cr

Objective

By tracing the history of economic thought, the student will understand how contemporary economics came to be and learn economic ideas for analytical skill development

UNIT I Introduction

Economic Thought – meaning – History of Economic Thought vs. Economic History – Factors influencing Economic Thought – Importance.

UNIT II Ancient and Classical Economic Thought

Greek, Roman – Physiocracy – Mercantilism – Development of Classical Economics – Main ideas of Adam smith, Malthus, Ricardo, J. B. Say.

UNIT III Neo – Classical and Keynesian Economic Thought

Economic ideas of neo-classical Economist – Alfred Marshall, Hicks, Pigou – Keynesian Economics –Post-Keynesian Economic ideas.

UNIT IV Indian Economic Thought and Contribution of Nobel Laureates in Economics

Indian Economic Thought: Economic ideas of Gokhale, Mahatma Gandhi and Nehru. Contribution of Nobel Laureates in Economics: Ragner Frisch, Nash, C.W.J. Granger, Amritya Sen.

TEXT BOOK

Loganathan, A.,(2012), *A History of Economic Thought*, S. Chand and Company, New Delhi.

REFERENCES

1. Pressman, Steven (2006), *Fifty Major Economists*, Routledge
2. Seshadri G.B.,(1997), *Economic Doctrines*, B.R. Publishing Corporation, New Delhi
3. Ajit Kumar Dasgupta (1993), *A History of Indian Economic Thought*, Routledge
4. Blackhouse, R.,(1985), *A History of Modern Economic Analysis*, Basil Blackwell, Oxford
5. Bhatia, H. L (1978), *History of Economic Thought*, Vikas Publishers, New Delhi
6. Ganguli, B.N.,(1977), *Indian Economic Thought: A 19th Century Perspective*, Tata McGraw Hill, New Delhi.

ECO 1237 DECISION – MAKING AND GOAL SETTING 3 Hrs2Cr

Objectives: The objective is to train the learner towards a focus and direction for a career. To help the students develop a solid foundation of planning, organizing his future, and making sound decisions by setting short and long term goals using the smart goals model.

Unit I: Decision Making

Meaning and definition of Decision making – Purpose – barriers to decision making – Different types – Phases of decision making – Steps to decision making.

Unit II: Decision Strategies

Kinds of decision - decision strategies - Pareto analysis - Paired comparison analysis -Grid analysis - Decision tree - Cost Benefit and cost - effectiveness.

Unit III: Goal Setting & Practicing Goal Setting

Concept and Importance of goals – Dream Vs Goal –Failure of goal setting – Types of goals - SMART goals (Specification, Measurable, Action oriented, Realistic and Time bound) – Art of prioritization – Do's and Don'ts about goals – Practical goal setting.
From aspiration to achievable target-action plan - Mini project on achievement motivation and accomplishment.

References

1. Aditya Sachdev, (2008), *The Right Decision Every Time*, Lotus press, New Delhi
2. Edwin A Locke, Gary P. Latham, (2012), *New Developments in Goal Setting and Task Performance*, Routledge. New Delhi.
3. Richard Koch (2007), *Living in the 80 / 20 Way*, Nicholas Brealey Publishing, London.4.
4. lrainanbu, V, (2007) *Steps to Super Student*, New Century Book House, Chennai.
5. Jeanne Sharbuno, (2006), *Fifty Two Ways to Live Success*, Jaico Publishing House, Mumbai.
6. Mridula Agarwal, (2005), *The Ten rules of Success*, Rupa and Company, New Delhi.

ECO 1239 POPULATION DYNAMICS 3 Hrs. 2 Cr

The objective of this course is to make possible for the students to understand the basic concepts of demography and to familiarize with the theories, issues and policy measures. The topics examined include population structure of mortality, migration and the inter-relationship between population growth and socio-economic development.

UNIT 1: Concepts and components

Meaning of demography – birth rate, death rate, sex ratio, density, vital events, vital statistics, and fertility – factors affecting fertility, reason for fertility variation; mortality – reasons - factors affecting mortality, infanticide – causes and remedial measures.

UNIT 2: Theories of population

Views of religion on population; Hinduism, Christianity Islam and Jainism – Malthusian theory of population, Optimum theory of population, biological theory, Theory of Demographic Transition.

UNIT 3: Population Issues and Policy
Migration – Urbanization – reasons and effects - Population policy of India

REFERENCES:

1. Jhingan, M.L., (2011), *Demography*, Vrindha Publication (P) Limited, New Delhi.
2. Agrawal, S.N., (1985), *India's Population Problem*, Tata Mc Grew Hill, Bombay.
3. Bhanda, A.A. & Kanithar, T., (1982), *Principles of Population Studies*, Himalaya Publishing House, Bombay.
4. Government of India, *Census* (Various Years), New Delhi.

ECO 1532 **MICRO ECONOMICS-II** **5 Hrs 5Cr**

The objective is to familiarize the learner with the market morphology.

The course deals with competition, monopoly and other market forms for products and factors.

Unit I: Market Structure and Perfect Competition

Classification of Market Forms – Features - Functions of Markets - Market Equilibrium - Perfect Competition – Definition, Features – Price-Output Determination, Short Run and Long Run Analysis – Concept of Time Element.

Unit II: Monopoly

Monopoly: Definition - Features - Price-Output Determination – Types – Causes – Merits and Evils – Control Measures **Price Discrimination**: Meaning - Types – Degrees, **Dumping**: Definition - Motives of Dumping.

Unit III: Monopolistic Competition and Oligopoly

Monopolistic Competition: Definition – Features - Price-Output Determination – Group Equilibrium. **Duopoly**: Features – Types **Oligopoly**: Concept - Characteristics of Oligopoly – Classifications – Types.

Unit IV: Theories of Distribution I

Factor Pricing Vs. Product Pricing: - **Rent**: Concept – Types - Ricardian Theory of Rent - Modern Theory of Rent – Concept of Quasi Rent **Wages**: Concept – Types - Determination of Real Wages, Theories: Wage Fund Theory, Marginal Productivity Theory and Modern Theory,

Unit V: Theories of Distribution II

Interest Concept and Theories: Marginal Productivity Theory- Loanable Funds Theory - Liquidity Preference Theory. **Profit**: Concept and Theories: Surplus Theory - Innovation Theory - Risk and Uncertainty – Dynamic Theory.

Text Books:

1. John Kennedy, (2013), *Micro Economics*, Himalaya Publications, Mumbai.
2. Jhinghan, M. L., (2013), *Modern Micro Economics*, Vrinda Publications, New Delhi.
3. Ahuja, H.L., (2012), *Principles of Micro Economics*, S. Chand and Company, New Delhi.
4. Gurusamy, M.P., (2010), *Micro Economics* (Tamil) Thenmozhi Publications, Thiruchendur.

References

1 John Solomon, (2007), *Economics*, Prentice Hall, New Delhi.
2 Campbell Mc Connell, (2006), *Economics: Principles, Problems and Policies*, Mc Graw Hill, New Delhi.
3. Case, and Fair, (2007), *Principles of Economics*, Prentice Hall, New Delhi.
4. Samuelson and Nordhaus, (1998), *Economics*, Tata Mc Graw Hill, New Delhi.
5. Mc Connell, C.R and Gupta H.C., (1987), *Introduction to Micro Economics*, Tata Mc Graw Hill, New Delhi.

ECO 1434 ECONOMIC STATISTICS – II 4 Hrs 4Cr

This sequential course deals with theory and application of analytical statistical methods.

Unit I: Correlation & Regression:

Correlation - Meaning – Types of correlation – methods – Karl Pearson's coefficient of correlation – Spearson's rank correlation - concurrent deviations – Scattered diagram - Regression - meaning - difference between correlation and regression equations - uses of correlation and regression analyses.

Unit II : Association of Attributes:

Association of Attributes - Meaning and uses - class frequencies - consistency of data - association independence of attributes - association and disassociation - Yule's coefficient of association - coefficient of colligation - contingency table.

Unit III: Time Series

Time Series -Meaning - components of the time series - trend - seasonal variation, - cyclical - fluctuations - irregular fluctuations – Measurement of trend: free hand, semi-average, moving average and method of least squares.

Unit IV: Index Numbers and Probability

Index Numbers - Meaning – uses - problems involved in the construction - methods of constructing index numbers: un-weighted and weighted - Laspere's, Passche's, Bowley's, Fisher's, Marshall-Edgeworth's Price and quantity index numbers - time reversal and factor reversal tests - uses - cost of living index numbers - uses - fixed and chain base indices.

Definition of probability – meaning – Types of events - addition theorem - multiplication theorem – simple problems.

References

1. S.P. Gupta, (2012), *Statistical Methods*, Sultan Chand Publications, New Delhi.
2. Pillai, R.S.N and V. Bagavathi, (2007): *Statistics*, S. Chand and Company Limited, New Delhi.
3. Agarwal, D.R., (2006), *Business Statistics*, Vrinda Publications (P) Limited, New Delhi.

ECO 1436 TAMILNADU ECONOMY 4 Hrs. 4 cr.

The objective of this course is to enable the students to understand the relevance of regional studies and to improve their competitiveness.

The course encompasses the endowments of Tamil Nadu economy in terms of factoral and sectoral resources.

Unit I: Profile of Tamil Nadu Economy

Physical features - Size – Growth of Population – State Domestic Product, Per Capita Income – State Finance – Natural Resources – Land, Water, Forest and Mineral Resources - Population – Population Issues.

Unit II: Sectoral Dimensions of Tamil Nadu Economy

Agriculture – Industry – Service Sectors: Agricultural Sector – Trends and Productivity - Allied Activities. Industrial Sector – Structure, growth, productivity, problems. Service Sectors – Pattern of Services - Sectoral Employment.

Unit III: Infrastucture Development

Water, Power, Transport & Communication, Banking and Finance, Education – Leading State Development Issues

References:

1. Leonard, A.G. (2006), *Tamil Nadu Economy*, Mc Milan India limited, Chennai
2. Manickam. S., (2006), *Economic Development of Tamil Nadu in Perspective*, Uyrimai Publication, Chennai.
3. *Tamil Nadu: An Economic Appraisal*, Various Issues, Government of Tamil Nadu.
4. Rajalakshmi, N., (1996), *Tamil Nadu Economy*, Business Publications Incorporated, Mumbai.
5. Madras Institute of Development Studies, (1989), *Tamil Nadu Economy: Performance and Issues*, Oxford and IBH Publishing, New Delhi.

ECO 1238 SKILLS FOR WORK EFFECTIVENESS 3Hrs. 2Cr.

Objective: To impart soft skills necessary at work place.
The course is on soft skills that can be nurtured in individual, in group and in organization.

Unit-I: Introduction

Economic Activities – Work: Types, Improvement in Work and Productivity – Distinction Between Efficiency and Effectiveness – Work Performance and Achievement Possibility Curve – Determination of Work Effectiveness - Skills: Types, Process of Skill Development – Exposure, Acceptance, Adoption, Formation, Execution – Factors Influencing Skill Development.

Unit-II: Personality Oriented Skills

Self Confidence – Enthusiasm – Mind Management, Time Management – Discipline – Creativity – Knowledge – Attitude – Perception – Stress Management – Body Language - Leadership – Motivation – Art of Speaking – Judging and Handling People: Controlling, Coaching, Negotiation and Delegation.

Unit-III: Resource Oriented Skills

Technology Based Skills – Organising Skills – Coordinating Skills – Marketing Skills – Finance Handling Skills – HRD Skills – Planning Skills.

Text Book:

K. Alex, (2012), *Soft Skills*, S.Chand and Company Limited.

References:

1. Bhatia R.L., (2002), *The Executive Track: An Action Plan for Self-Development*, Wheeler Righting.
2. David Goldberg, (1997), *Life skills and leadership*, Tata McGraw–Hill Publication, New Delhi.

ECO 1240 **HEALTH ECONOMICS** **3 hours 2 Cr**

The purpose of this course is to help the students understand the application of economic principles in the health sector. This will enable the students to appreciate the economic aspects of health care services.

Unit 1: Introduction:

Health Economics: Areas of Health Economics – Health Economics Map – Value of Health – Investing in Health - Health and Development – Health Problems – Causes of Health Problems - Health Determinants – Alternate Health Care Systems.

Unit 2: Demand, Supply and Market of Health Care:

Demand for Health: Who Demands Health Care? - Law of Demand and Its Application – Demand Determinants: **Supply of Health**: Health Care Providers – Application of Law of Supply – Supply Determinants, Cost of Health and Cost Components: **Health Care Market**: Nature of Health Care Services Market – Types of Markets: Monopoly and Oligopoly – Concepts: Market Failure, Supplier–Induced Demand, Managed Care and Asymmetric Information.

Unit 3: Health Policy and Planning:

Health Policy: Need – Nature - Dimensions; **Health Planning**: Need – Approaches – Planning Cycle - Problems - Evaluation Techniques: Cost-Benefit Analysis, Cost- Utility Analysis, Cost - Minimisation Analysis, Cost-Effectiveness Analysis.

Text Book:

Anand and Shikha Goel (2010): Health Economics, AITBS, Publishers, New Delhi

Reference:

1. Ceri J. Phillips, (2008), *Health Economics: An Introduction for Health Professionals*, Black Well Publishing, USA.
2. James W. Henderson, (2005), *Health Economics and Policy*, Thomson, New Delhi.
3. Ramankutty, V., (2000), *Fundamentals of Health Economics,* Allied Publishers, New Delhi.

UG DEPARTMENT OF COMMERCE (AIDED)
Program for B.Com. Degree in Commerce – CBCS 2015-16 onwards

SEM	COURSE	SUBJECT CODE	SUBJECT TITLE	HOURS	CREDIT	MARKS
1	Part-I	COM 1201	TAM/FRE/HIN/ வணிகக் கடிதத் தொடர்புகள் - I	3	2	30
	Part-II	ENG 1201	Conversational Skills	3	2	30
	Major	COM 1531	Financial Accounting-I	5	5	75
	Major	COM 1433	Business Communication	4	4	60
	Major	COM 1435	Fundamentals of Marketing	4	4	60
	LS	COM 1209	Creative Leadership	3	2	30
	NME	COM 1211	Fundamentals of Accounting	3	2	30
	Supportive	COM 1437	Business Economics	5	4	60
			TOTAL	**30**	**25**	**375**
2	Part-I	COM 1202	TAM/FRE/HIN/ வணிகக் கடிதத் தொடர்புகள் - II	3	2	30
	Part-II	ENG 1202	Reading & Writing Skills	3	2	30
	Major	COM 1532	Financial Accounting-II	5	5	75
	Major	COM 1434	Banking Theory Law and Practice	4	4	60
	Major	COM 1436	Marketing Management	4	4	60
	LS	COM 1210	Services Marketing	3	2	30
	NME	COM 1212	Fundamentals of Management	3	2	30
	Supportive	COM 1438	Business Environment	5	4	60
	Part-V	xxx 0000 or xxx 0000	Ext. activity NCA/NCN/NSS Or Ext. activity SLP	- -	2 2	30 30
			TOTAL	**30**	**27/25**	**405/375**
3	Part-I	COM 2201	TAM/FRE/HIN/ அலுவலகமேலாண்மை	3	2	30
	Part-II	ENG 2201	Study Skills	3	2	30
	Major	COM 2531	Partnership Accounting	5	5	75
	Major	COM 2633	Business Laws	6	6	90
	Major	COM 2435	Risk Management	4	4	60
	Major	COM 2437	Logistics and Supply Chain Management	4	4	60
	Supportive	COM 2439/ MAT	InformationTechnology/ Business Statistics	5	4	60
			TOTAL	**30**	**27**	**405**

SEM	COURSE	SUBJECT CODE	SUBJECT TITLE	HOURS	CREDIT	MARKS
4	Part-I	COM 2202	TAM/FRE/HIN/ காப்பீடு–கோட்பாடுகளும் நடைமுறைகளும	3	2	30
	Part-II	ENG 2202	Career Skills	3	2	30
	Major	COM 2532	Corporate Accounting	5	5	75
	Major	COM 2634	Corporate Laws	6	6	90
	Major	COM 2436	Business Ethics	4	4	60
	Major	COM 2438	Auditing and Assurance	4	4	60
	Supportive	COM 2440/ MAT	E-Commerce/ Business Mathematics	5	4	60
	Part-V	xxx 0000 or xxx 0000	Ext. activity NCA/NCN/NSS Or Ext. activity SLP	- -	2 2	30 30
			TOTAL	**30**	**29/27**	**435/405**
5	LS	COM 3201	Business Correspondence	3	2	30
	VAL		Value Education	4	2	30
	Major	COM 3631	Higher Accounting	6	6	90
	Major	COM 3633	Income Tax I	6	6	90
	Major	COM 3635	Cost Accounting I	6	6	90
	Major	COM 3537	Human Resource Management	5	5	75
			TOTAL	**30**	**27**	**405**
6	LS	COM 3202	Export Marketing	3	2	30
		COM 3200	Environmental Studies	4	2	30
	Major	COM 3632	Management Accounting	6	6	90
	Major	COM 3634	Income Tax II	6	6	90
	Major	COM 3636	Cost Accounting II	6	6	90
	Major	COM 3538	Investment Management	5	5	75
			TOTAL	**30**	**27**	**405**

SUPPORTIVE

SEMESTER	SUBJECT CODE	SUBJECT TITLE	HOURS	CREDIT
1	COM 1437	Business Economics	5	4
2	COM 1438	Business Environment	5	4
3	COM 2439	Information Technology	5	4
4	COM 2440	E-Commerce	5	4

NON – MAJOR ELECTIVE

SEMESTER	SUBJECT CODE	SUBJECT TITLE	HOURS	CREDIT
1	COM 1211	Fundamentals of Accounting	3	2
2	COM 1212	Fundamentals of Management	3	2

LIFE SKILL COURSES

SEMESTER	SUBJECT CODE	SUBJECT TITLE	HOURS	CREDIT
1	COM 1209	Creative Leadership	3	2
2	COM 1210	Services Marketing	3	2
5	COM 3210	Business Correspondence	3	2
6	COM3202	Export Marketing	3	2

COM 1201 வணிகக் கடிதத் தொடர்புகள் - I **3Hrs/2Cr**

நோக்கம்:
போட்டிகள் நிறைந்த தற்கால உலகத்தில் வணிகக் கடிதங்களின் முக்கியத்துவத்தையும் மற்றும் நடைமுறையில் எந்த பிழையும் இல்லாமல் எவ்வாறு அதனைப் பயன்படுத்துவது என்பதையும் விளக்குவது இப்பாடத்தின் நோக்கமாகும்.

அலகு: I
வணிகத் தொடர்பு – பொருள் - இலக்கணம் - முக்கியத்துவம் - அடிப்படைக்கூறுகள் - பணிகள் - வழிமுறை

அலகு: II
நேரடி மற்றும் மறைமுக வணிகத் தொடர்பு – தடைகள் - மின்னணு அமைப்புச் சாதனங்கள்

அலகு: III
விசாரணைக் கடிதங்கள் - ஆணையுறுக் கடிதங்கள் - பொருள் - முக்கியத்துவம் - வழிமுறைகள்

அலகு: IV
விற்பனைக் கடிதங்கள் - பொருள் - வழிமுறைகள்

அலகு: V
பின்பற்றுக் கடிதங்கள் - வழிமுறைகள் - கடிதங்கள்

Books for Reference:

1. ராதா, வணிக கடிதங்கள், பிரசன்னா பப்ளிசர்ஸ், சென்னை, 2005.
2. ராதா, வணிக கடித தொடர்புகள், பிரசன்னா பப்ளிசர்ஸ், சென்னை, 2006.
3. Dr.K.அன்பழகன் S.இராமர், வணிகக் கடிதத் தொடர்பு - மெரிட் இந்தியா பப்ளிகேஷன்ஸ், மதுரை, 2008.
4. R.S.N. Pillai & Bhagavathi, Commercial Correspondence & Office Management S & Chand Publications, New Delhi, 2009.
5. Prasantha Ghosh, Secretarial Practice & Management, Sultan Chand Publications, New Delhi, 2010.
6. பாவை ஆசிரியர் குழு, வணிக மடலியலும் அலுவலக மேலாண்மையும் - பாவை பதிப்பகம் 2007.

COM 1531 **FINANCIAL ACCOUNTING – I** **5Hrs/5Cr**

Objective:
The object of the course is to equip the students with the working knowledge of accounting practices in order to prepare for CA, CMA, and ACS. This course develops skills on the application of theoretical knowledge of financial accounting in business in the backdrop of Accounting Standards

UNIT I
Introduction to accounting- Accounting concepts- Errors and their rectification- Final accounts - Bank Reconciliation statement - Reconciliation in case of favourable and unfavourable balances in passbook and cash book – Reconciliation after adjustments in cash book and pass book.

UNIT II

Bills of exchange promissory notes – Account current and Average due date – where amount is lent in various instalments, amount lent in one instalment Account current, calculation of interest (Forward backward method, daily balance method, red ink interest & Daily balance method).

UNIT III

Depreciation – depreciable assets, causes, methods of calculating and recording depreciation, and accounting for changes in depreciation policies – Insurance claims – loss of profit, loss of stock – Goods on sale or return basis.

UNIT IV

Consignment – stock valuation, Accounting for losses, invoice price, memorandum column method, consignment inwards.

UNIT V

Accounting entries for Joint Venture – Accounting treatment – Separate set of books – Same set of books – memorandum method.

Books for Reference:

1. M.C.Shukla, Advanced Accounting I, Sultan Chand & Sons., New Delhi,2009
2. Mukerjee and Hanif, Advanced Accounting Vol I, Tata McGraw Hill Company Limited, New Delhi,2009
3. S.P.Iyengar,Advanced Accounting Vol I, S.Chand & Sons, New Delhi, 2009
4. S.Kr.Paul, Advanced Accountancy Vol I,Central Publishing Company, Kolkatta, 2006

COM 1433 BUSINESS COMMUNICATION 4Hrs/4Cr

Objective:

To develop written and oral business communication skills particularly, interviews, group discussions, presentation skills, negotiating and bargaining and to provide knowledge on modern communication methods, business letters, preparation of resume, Public speech and so on, are taught.

UNIT I

Business Communication: Meaning, Importance of effective business communication, Barriers to communication, Modern communication methods, Business letters, Need, Functions, Kinds. Essentials of effective business letters,- Layout of effective business letters.

UNIT II

Enquiries: Offer, Quotations, Trade Enquiries: Orders and their Execution, Extension of time for execution of orders, Declining orders. Credit and Status Enquiries: Complaints and Adjustments: Collection Letters: Statement of accounts, Reminders, Strong reminders and limiting date letters -Sales Letters and Circular Letters.

UNIT III

Business Correspondence: Banking Correspondence: Letters from banker and customer and letters from customers to bankers. Insurance Correspondence: Surrender, Revival and other enquiries related to insurance. Agency Correspondence Letters.
Company Secretarial Correspondence (Includes Agenda, Minutes and Report Writing)

UNIT IV

Interview: Application Letters: Preparation of Resume- Interview: Meaning, Objectives and Techniques for facing various types of Interviews.

UNIT V

Report and Public Speech: Report - Business Report Presentations - Methods of preparing business report for different domains. Public Speech - Characteristics of a good Speech.

Books for Reference:

1. Rajendra Pal and Korlahalli, 'Essentials of Business Communication', Sultan Chand & Sons, New Delhi, 2006.
2. Ramesh M.S. and Pattanshetti C.C., 'Business Communication', Sultan Chand & Sons, New Delhi, 2003.
3. Rodriquez M.V., 'Effective Business Communication Concept', Vikas Publishing Company, New Delhi, 2003.

COM 1435 FUNDAMENTALS OF MARKETING 4Hrs/4Cr

Objective:

The purpose of this course is to equip the students with various marketing concepts and principles as applicable to recent business trends.

UNIT I

Definition of Marketing – Importance of Marketing – Evolution of Marketing Concept – Marketing Function – Goods – Types of Goods – Classification of Goods and Markets, Classification and Characteristics of Consumer and Industrial Goods – Market – Kinds of Markets.

UNIT II

Marketing Concepts - Product approach, production approach, selling approach, integrated marketing, societal marketing, consumer oriented marketing approaches. Market Segmentation – Meaning – Basic Criteria – Pros and cons.

UNIT III

Introduction to types of marketing – Products and services – Urban and Rural marketing.

UNIT IV

Consumer behaviour - Internal and external factors – Biogenic and psychogenic buying motives – Rational and irrational motives – Customer service – Customer value for money.

UNIT V

Marketing Research – Introduction – Process – Methods – Role in marketing of products.

Books for Reference:

1. Stanton W J, Fundamentals of Marketing Prentice Hall India Ltd., New Delhi, 2003.
2. Philip Kotler, Principles of Marketing, Prentice Hall India, New Delhi, 2003.
3. Gupta, C.B., Marketing Management, Sultan Chand & sons, New Delhi 2005.
4. Pillai RSN & Baghawathy, Modern Marketing, S Chand & Co Ltd., New Delhi, 2004.

COM 1209 CREATIVE LEADERSHIP 3Hrs/2Cr

Objective:
The aim of this course is orient the students towards ideal leadership skills by imbibing the requisite thinking and qualities for a leader.

UNIT I
Introduction to Leadership: Meaning – Definition – Origin - Leadership Theories – Leadership Styles – Skills and Qualities of a leader. Power and Authority of a Leader: Delegation of Authority.

UNIT II
Meaning and Definition of Team, Group – Importance of Team Work. Brain Storming, Problem solving, constructive criticism. Motivation: Meaning and Definition of Motivation.

UNIT III
Change Management: Meaning and Definition of Change – Need for change – Types of change – Process of change – Resistance to change – Overcoming resistance to change.

UNIT IV
Stress Management: Factors causing stress – Eustress and Negative Stress – Effects of stress.

UNIT V
Conflict Management: Meaning and Definition of Conflict – Functional and Dysfunctional conflict –Resolving Conflicts.

Books for Reference:

1. Tripathy. P.C. 'Personnel Managment', Sultan Chand and Sons, New Delhi, 2002.
2. Prasad. L.M. 'Human Resource Management', Sultan Chand and Sons, New Delhi, 2006.
3. Aswathappa. K. 'Organisational Behaviour', Himalaya Publishing House, New Delhi, 2007.
4. Mamoria. C.B. 'Personnel Management', Kitab Mahal, Calcutta, 2003.
5. Davar. R.S. Personnel Management and Industrial Relations', Himalaya Publishing House, New Delhi, 2004.

COM 1211 FUNDAMENTALS OF ACCOUNTING 3Hrs/2Cr

Objective:
The course enables the students to understand the basic concepts of accounting in order to prepare for competitive exams- This course is exclusively designed for the benefit of science stream students.

UNIT I

Introduction to book keeping-Accountancy – Accounting terminologies – Types of accounting rules - merits of accounting -mechanized accounting.

UNIT II

Journal - passing entries in Journal (excluding adjustment entries)

UNIT III

Subsidiary books – cash book- single, double and triple column cash book- petty cash book

UNIT IV

Ledgers posting and balancing-preparation of trial balance.

UNIT V

Final accounts – concepts of gross profit and net profit – contents of final accounts – preparation of trading, profit and loss accounts and Balance Sheet with simple adjustments.

Books for Reference:

1. Grewal T, Introduction to Accountancy, Sultan Chand &Sons, New Delhi,2009
2. Gupta V.K, Fundamentals of Accountancy, Sultan Chand &Sons, New Delhi,2009
3. Gupta R.L., Radhaswamy M, Financial Accounting, Sultan Chand & Sons, New Delhi, 2009
4. Jain & Narang, Financial Accounting, Kalyani Publishers, NewDelhi,2009

COM 1437 BUSINESS ECONOMICS 5Hrs/4Cr

Objective:

The course helps students to have basic understanding of economic principles and its application to the business world. This paper covers basic concepts of economics in order to prepare the students for professional courses.

UNIT I

Business Economics – Meaning – Definitions – Nature and Scope – Goals of firms- Managerial Economics- nature, scope applicability.

UNIT II

Demand – Types – Determinants – Reasons for downward sloping – Exceptions – Uses, consumer's surplus. Elasticity of demand – types – factors – practical importance – Demand forecasting – objectives – direct and indirect methods – indifference curve – Properties - Consumers Equilibrium.

UNIT III

Production – Production function – Law of returns and returns to scale – The law of variable proportion – Isoquant - properties – produces equilibrium. Cost – cost functions – types – derivation of long run cost curve – internal and external economics of scale – Concepts of revenue – Break even analysis – Concepts – uses and limitations.

UNIT IV

Pricing theory – Time element – Perfect competition – features – Supply curve and Equilibrium – Monopoly – types – Degree of price discrimination – Advantages and disadvantages – Monopolistic competition – Selling cost – Oligopoly – Kinky demand curve model, objectives of price policies – Pricing methods.

UNIT V

National income – Concepts – Methods of measuring national income – difficulties – Uses – inflation – types – Causes and consequences – measures to check inflation.

Books for Reference:

1. Maheswari & Varshney, Business Economics, Sultan Chand & Sons, New Delhi, 2009
2. Mankar, G,Business Economics, Vikas Publishing House, Mumbai, 2010
3. Sundaram KPM, Business Economics, Sultan Chand & Sons, New Delhi,2010
4. Shankaran S, Business Economics, Margham Publications, Chennai,2011

COM 1202 வணிகக் கடிதத் தொடர்புகள் - II 3Hrs/2Cr

நோக்கம்:

பல்வேறு வகையான கடிதங்கள், அவைகளின் தன்மை, அமைப்புக் குறித்து விளக்குதல் இப்பாடத்தின் நோக்கமாகும்.

அலகு: I

புகார் மற்றும் சரிகட்டுதல் - வசூல் - வழிமுறைகள்.

அலகு: II

போக்குவரத்து – வேலைப்பணிக்கான கடிதங்கள்.

அலகு: III

சுய அறிமுகப் படிவம் - பணி நியமனக் கடிதங்கள்.

அலகு: IV

அறிக்கை – பொருள், முக்கியத்துவம் - கூறுகள் - வகைகள்.

அலகு: V

பொருளடக்கம் - சட்டப்பூர்வ அறிக்கை – ஆண்டறிக்கை – சந்தை அறிக்கை – பொருள் - பணிகள் - பண்புகள்.

Books for Reference:

1. ராதா, வணிக கடிதங்கள், பிரசன்னா பப்ளிசர்ஸ், சென்னை, 2005.
2. ராதா, வணிக கடித தொடர்புகள், பிரசன்னா பப்ளிசர்ஸ், சென்னை, 2006.
3. Dr.K.அன்பழகன் S.இராமர், வணிகக் கடிதத் தொடர்பு - மெரிட் இந்தியா பப்ளிகே'ன்ஸ், மதுரை, 2008.
4. R.S.N. Pillai & Bhagavathi, Commercial Correspondence & Office Management S & Chand Publications, New Delhi, 2009.
5. Prasantha Ghosh, Secretarial Practice & Management, Sultan Chand Publications, New Delhi, 2010.
6. பாவை ஆசிரியர் குழு, வணிக மடலியலும் அலுவலக மேலாண்மையும் - பாவை பதிப்பகம் 2007.

COM 1532 **FINANCIAL ACCOUNTING – II** **5Hrs/5Cr**

Objective:
The objective of the course is to enable students to develop skill in preparation of accounts for various business organisations and to equip the students with the working knowledge of accounting practices in order in order to prepare for CA, CMA and ACS.
This course deals with the methods of accounting involved in various organisations such as non-trading concerns, departments and branches.

UNIT I
Accounts of Non-trading Organisation: Receipts and Payments Accounts – Income and Expenditure Accounts – Balance sheet

UNIT II
Accounts from incomplete Records: Ascertainment of Profit and Loss – Net worth method – Conversion method – Self-balancing ledgers and sectional balancing ledgers – Nature of Ledgers

UNIT III
Branch Accounts – Final Account system – Independent Branch – Incorporation of Branch Account to Head office account.
Departmental Accounts – Allocation of departmental expenses – Interdepartmental transfer – Departmental Final Accounts – Memorandum Stock Account – Mark up Account

UNIT IV
Hire Purchases – Cash price – Default and Repossession – Methods of recording hire purchase transactions – Instalment payment system – Accounting treatment in the books of vendor and buyer

UNIT V
Royalty Accounts- Minimum Rent – Short working – Royalty receivable and payable – Sub-lease.

Books for Reference:

1. M.C.Shukla, Advanced Accounting I, Sultan Chand & Sons., New Delhi,2009
2. Mukerjee and Hanif, Advanced Accounting Vol I, Tata McGraw Hill Company Limited, New Delhi,2009
3. S.P.Iyengar,Advanced Accounting Vol I, S.Chand & Sons, New Delhi, 2009
4. S.Kr.Paul, Advanced Accountancy Vol I,Central Publishing Company, Kolkatta, 2006

COM 1434 **BANKING THEORY LAW AND PRACTICE** **4Hrs/4Cr**

Objective:
The course content familiarises students with the provisions of Banking Regulation Act. In addition to this the subject deals with the various functions of modern banking systems in India namely Commercial Banks, Cooperative Banks, Regional Rural Banks, Land Development Banks, Reserve Bank of India etc. Also this course covers recent trends in banking such as Automated Teller Machines, Credit Cards, Debit Cards and various e-banking Viz., Internet Banking, Mobile Banking, ECS, RTGS, NEFT etc.

UNIT I

Banker and Customer: Introduction and definition of banking. General and special relationship between banker and customer, Banker's lien, Rights of banker especially right to maintain customer's account secrecy and circumstances of revealing. Special types of customers. Functions, features, advantages and disadvantages of Investment banking, Branch banking and Unit banking.

UNIT II

Banking system in India: Functions and role of Commercial banks, Cooperative banks, Regional Rural Banks, Land Development Banks, Lead bank scheme, NABARD, EXIM bank, Nationalisation of banks. RBI: Functions, credit creation, credit contraction and credit control measures (both qualitative and quantitative) and anti-money laundering.

UNIT III

Pass book: Legal significance, favourable and unfavourable entries and their effects. Investment Policies: Principles of sound lending, Bank loans and advances policy, Secured and unsecured advances.

UNIT IV

Cheques: Types of cheques, difference between cheque, bill of exchange and promissory notes, material alteration, crossing - general crossing and special crossing - Endorsement – meaning and types of endorsement.

UNIT V

Trends in Banking: Collecting banker: holder for value and holder in due course. Paying banker: circumstances of dishonour and statutory protection to paying banker. Automated Teller Machines, Credit cards and debit cards: Payment process, differences and advantages and problems in using. E-banking: Internet banking, Mobile banking, SMS banking, ECS, RTGS, NEFT.

Books for Reference:

1. Gordon K. and Natrarajan E, 'Banking theory, Law and practice', Himalay Publishing House, New Delhi, 2011.
2. Davar, 'Banking Law and Practice', S.Chand & Sons, New Delhi, 2003.
3. Vasudevan S., 'Banking Theory, Law and Practice', S.Chand & Sons, New Delhi, 2004.
4. Vasanth Desai, 'Banking Theory, Law and Practice', Himalaya publishing House, New Delhi, 2002.
5. Bhaskaran R. 'Anti-money laundering and know your customer', Indian Institute of Banking and Finance, Macmillan Publishers India Ltd, New Delhi, 2014.

COM 1436 MARKETING MANAGEMENT 4Hrs/4Cr

Objective:

The objective of this course is to impart knowledge on the framework of marketing management at various environmental constraints. This course covers the evolution of marketing, market analysis and selection, product and pricing decisions, distributional and promotional decisions (with practical cases) and recent developments. It is also designed to encourage students to practice marketing as their profession.

UNIT I

Market Analysis and Selection: Concept, Nature, Scope and importance of marketing; marketing concept and its evolution; Strategic marketing planning – CRM - Marketing environment - macro and micro components and their impact on marketing decisions; Market segmentation and positioning; Buyer behaviour; Consumption versus Industrial Organisational buyers; Consumer decision-making process.

UNIT II

Product and Pricing Decisions: Concept of a product; Classification of products; Major product decisions; Product line and product mix; Branding; Packaging and labeling; New product development and consumer adoption process. Pricing decisions: Factors affecting price determination; Pricing policies and strategies.

UNIT III

Distribution Decisions: Nature, functions and types of distribution channels; Distribution channel intermediaries; Channel management decisions, Retailing and wholesaling.

UNIT IV

Promotional Decisions: Promotion decisions: Communication process; Promotion mix - advertising, Personal selling, Sales promotion, Publicity and Public relations; Determining advertising budget; Copy designing and its testing; Media selection; Advertising effectiveness; Sales promotion - Tools and techniques.

UNIT V

Recent Developments in Marketing: Retail Marketing – Online Marketing – Multi Level Marketing – Relationship Marketing

Books for Reference:

1. Kotler, Philip and Gary Armstrong, Principles of Marketing, Prentice Hall, New Delhi, 2005.
2. Ramaswamy VS and Namakumari S Marketing Management, MacmillonIndia, New Delhi, 2005.
3. Srinivasan R Case Studies in Marketing - the Indian Context, Prentice Hall, New Delhi, 2006.
4. Stanton, William J and Charles Futrell, Fundamentals of Marketing, McGraw Hill Publishing Company, New York, 2005
5. Pankaj Madan, Amit Mittal, Hemraj Verma, 'Marketing Management', Global Vision Publishing House, New Delhi, 2011.

COM 1210 SERVICES MARKETING 3Hrs/2Cr

Objective:

The objective of this course is to explore the various sectors in service industry and to develop entrepreneurial skills. This is one semester course which covers the various concepts of service and the elements of marketing mix in service marketing. It also covers the marketing of financial services, marketing of hospitality and tourism services and marketing of educational services.

UNIT I

Introduction: three main groups – primary – secondary and tertiary concept of service – reasons for the growth of service sector – of services; Intangibility – Inseparability – heterogeneity - Perishability - ownership

UNIT II

Elements of marketing mix in service marketing; Basic issues – quality – designing service strategy.

UNIT III

Marketing of Banking services – Marketing of Mutual Funds - Marketing of Insurance services - Marketing of Health services.

UNIT IV

Marketing of Hospitality services – Marketing of Day Care Services - Marketing of Travel services - Marketing of Tourism services.

UNIT V

Marketing of Education services – Marketing of Entertainment services - Marketing of Courier services - Marketing of Software services

Books for Reference:

1. Jha S.M., 'Services Marketing', Himalaya Publishing House, New Delhi, 2011
2. Shajahan S., 'Services Marketing', Himalaya Publishing House, New Delhi, 2005
3. Love lock Christopher H., 'Services Marketing', Prentice Hall Eaglewood Cliffs, 2003
4. Philip Kotler,' Marketing Management' Prentice Hall of India Pvt Ltd, New Delhi, 2003
5. Stanton WJ ,'Fundamentals of Marketing', Mc Graw Hill, New York, 2002.

COM 1212 FUNDAMENTALS OF MANAGEMENT 3Hrs/2Cr

Objective:

The course envisages to provide an in-depth knowledge of various aspects of management and to provide detailed insight into management principles and their application to complex business situations.

UNIT I

Introduction-Concept of Management-Features and objective of management-Management functions-POSDCORB-MBO-MBE-Management and authority-Management and administration

UNIT II

Planning-Definition-Objectives-Features-Planning process-Types of plans; Organising-Definition-Steps in organising- Organisation structure- Types of organising- Formal organising-Features-merits- Informal organisation- Informal organisation models- Delegation of authority-Centralisation and decentralisation of authority

UNIT III

Staffing- Definition-Manpower planning-Recruitment-Selection procedures- Types of various test- Sources of employment-Employment training-Types of training- Job evaluation-Performance appraisal-Transfers-Promotions-Job satisfaction

UNIT IV

Directing- Definition-Directing process-Motivation-Incentives-Monetary and non-monetary incentives- Premium plans- Communication- Types of communication-Media of communication- Barriers to office communication- Leadership- Types of leadership qualities-Qualities of a leader-Types of leaders

UNIT V

Coordination-Conceptual definition-Merits –Features-Reporting- Essentials of good reporting- various forms of reports- reports to various levels of management- Controlling-Budgeting-Features of budgeting-Types of budgets

Books for Reference:

1. Lallan Prasad, Principles of Management, S. Chand Publishers, New Delhi, 2010
2. Prasad L M, Principles of Management, , S. Chand Publishers, New Delhi, 2010
3. Mamoria C B Personnel Management, Kitab Mahal, Kolkatta, 2008
4. Gupta C B, Human Resource Management, Sultan Chand, New Delhi, 2010s

COM 1438 BUSINESS ENVIRONMENT 5HrS/4Cr

Objective:

The course incorporates knowledge on business environment to enable students to understand various environmental issues relating to business and its utility in economic sense.

UNIT I

Introduction – Historical background – Family management vs. Professionalism – socio-cultural environment – middle class social responsibility of business – values changing concept of business.

UNIT II

Consumer rights – Consumer spending – Consumer protection – Law of contracts, Companies Act 1956.

UNIT III

Private sectors – public sectors – privatization benefits – Industrial policy – multinationals

UNIT IV

Competition Act, 2002 – Bench marking, Zero defects - quality control- Research and development- ISO

UNIT V

GATT - WTO – Formation - member countries – Agreements - TRIMS – TRIPS – Impact of WTO on Indian trade.

Books for Reference:

1. Aswathappa K, Essentials of Business Environment, Himalaya Publishing House, New Delhi, 2003.
2. Raj Aggrawal, Business Environment, Tamilnadu Book House, Chennai, 2005.
3. Gupta C B, Business Environment, Sultan Chand & Sons, New Delhi, 2005.
4. Bhatia B.S, Globhalization and Business management, Tamilnadu Book House, Chennai, 2005.

COM 2201 **அலுவலக மேலாண்மை** **3Hrs/2Cr**

நோக்கம்:

நவீன அலுவலகத்தின் அமைப்பு முறைகள், செயல்பாடுகள், அன்றாட நடவடிக்கைகளை விளக்குதல், அலுவலகத்தின் வளமைகளை முறைப்படிப் பயன்படுத்தி, அதிகாரப் பகிர்தலைச் சரியாகக் கையாளுதலின் மூலம் பணித்தளத்தை எங்ஙணம் எளிதாக்குதல் மற்றும் தகவல் தொடர்புச் சார்ந்த பதிவேடுகளை முறையாகக் கையாளுதல் போன்றவற்றை விளக்குவதே இப்பாடத்தின் நோக்கமாகும்.

அலகு- I:

அலுவலக மேலாண்மை - இலக்கணம் - நவீன அலுவலகத்தின் அமைப்பு முறைகள் நவீன அலுவலகத்தின் இலக்கணம் செயல்பாடுகள் மற்றும் முக்கியத்துவம் மேலாண்மை மற்றும் அமைப்பு–அலுவலக முறை மற்றும் அன்றாட நடவடிக்கைகள்

அலகு- II:

பணிபோக்கு ஒப்படைப்புசெயல்முறைகள் - அதிகாரத்தை பரவலாக்குதல் - அலுவலக வளமை வகைகள் - வளமைகளைத் தயாரித்தல் - பயன்படுத்துதல் மற்றும் மதிப்பிடுதல்

அலகு- III

அலுவலக இடவசதி, அலுவலகமனைத் துணைப் பொருட்கள் மற்றும் அமைப்புத் திட்டம் - பணிக்கேற்றசூழ்நிலை, பணியை எளிதாக்குதல்

அலகு- IV:

அஞ்சலகமுறை கடிதப் போக்குவரத்து மற்றும் பதிவேடுகளை பராமரித்தல், தபால்களை கையாளுதல் - அஞ்சல் துறையை அமைத்தல்- மையப்படுத்தப்பட்ட அஞ்சல் பணி உள்வரும் மற்றும் வெளித்தொடர்பு - வாய்மொழித் தகவல் தொடர்பு மற்றும் எழுத்து மூலம் தகவல் தொடர்புபதிவேடுகளைஉருவாக்குதல் - எழுத்துப் பணிகள் - அலுவலகஅறைகள் - படிவக் கட்டுப்பாடு–வடிவமைப்பு–தொடர்புஎழுதுபொருள்.

அலகு- V

கோப்பிலிடுதல்: நல்லகோப்பீடுமுறையின் முக்கியஅம்சங்கள் - வகைப்படுத்துதல் மற்றும் வரிசைப்படுத்துதல் - கோப்பீட்டுமுறைகள் - மையக் கோப்பீட்டுமுறைமற்றும் பரவலாக்கப்பட்டகோப்பீட்டுமுறைசட்டகராதியின் பல்வேறு வகைகள்.

Books for Reference:

1. அலுவலக முறைகள் - எஸ்.எம். சுந்தரம் ஸ்ரீமீனாட்சி பப்ளிகே'ன்ஸ், காரைக்குடி
2. Commercial Correspondence & Office Management – R.S.N Pillai & Bhagavathi, S & Chand Publications, New Delhi
3. Secretarial Practice & Management – Prasantha Ghosh – Sultan Chand Publications, New Delhi
4. வணிக மடலியலும் அலுவலக மேலாண்மையும் - பாவை ஆசிரியர் குழு பாவை பதிப்பகம்
5. அலுவலக முறைகள் –னுச.மு.அன்பழகன் ஞ.இராமர் மெரிட் இந்தியா பப்ளிகே'ன்ஸ், மதுரை-1.

COM 2531 **PARTNERSHIP ACCOUNTING** **5Hrs/5Cr**

Objective:
The objective of this course is to provide detailed insight in to specialized accounting and their application to complex business situations and to gain comprehensive understanding of all aspects relating to partnership accounting and to equip the students with the working knowledge of accounting practices in order in order to prepare for CA,CMA, and ACS.

UNIT I
Partnership: Meaning – Features – Kinds – Partnership Deed – Appropriation of Profit & Loss Account – LLP – Accounting procedures.

UNIT II
Admission of a Partner – Profit sharing ratio – Goodwill – Revaluation of Assets and liabilities – Retained earnings and Accumulated Losses – book values are not to be altered (Memorandum revaluation method).

UNIT III
Retirement of a partner – ascertainment of amount due to retiring partner – simultaneous retirement and admission – Death of a Partner – Profit Sharing ratio – Joint Life Policy.

UNIT IV
Amalgamation of firms – meaning – accounting procedure – assets and liabilities not taken over.

UNIT V
Dissolution of Partnership – Dissolution of firm – Dissolution by the court – settlement of accounts – Dissolution Accounts – Gradual realization of Assets and Piecemeal Distribution – Insolvency of a partner – Insolvency of more partners than one - Insolvency of all partners. Sale of Partnership Business to Company – Accounting Entries

Books for Reference:

1. M.C.Shukla, Advanced Accounting I, Sultan Chand & Sons., New Delhi,2009
2. Mukerjee and Hanif, Advanced Accounting Vol I, Tata McGraw Hill Company Limited, New Delhi,2009
3. S.P.Iyengar,Advanced Accounting Vol I, S.Chand & Sons, New Delhi, 2009
4. S.Kr.Paul, Advanced Accountancy Vol I,Central Publishing Company, Kolkatta, 2006

COM 2633 **BUSINESS LAWS** **6Hrs/6Cr**

Objective:
This paper aims at providing a bird's eye view on various business laws which will facilitate the students in having an understanding of theoretical knowledge of laws governing business.

UNIT I
Mercantile law – introduction- contract – definition – kinds – essential elements – offer and acceptance – consideration – capacity – consent – mistake - Unlawful agreement and illegal agreement – agreements opposed to public policy – wagering agreements and contingent contracts – performance of contracts – discharge of contracts – kinds – remedies for breach of contracts – quasi contracts.

UNIT II
Indemnity and Guarantee - Rights of Indemnity holder – Difference between Indemnity and Guarantee – Rights of Surety – Discharge of Surety.

UNIT III
Industrial Disputes Act- settlement mechanisms- types of disputes- offences and penalties- health, safety and welfare measures of workers under Factories Act

UNIT IV
Information Technology Act, 2000- scope, nature, applications in business to business- business to customer

UNIT V
Right to Information Act-Information- concepts in relation to business world

Books for Reference:

1. Business Laws, N.D.Kapoor, Sultan Chand & Sons, New Delhi,2013
2. Indian Business Laws, Agarwal, Galgothra Publications,2006.
3. Economic Laws 2014, Taxmann Publications, New Delhi, 2014 Dr.Tuteja S.K, Business Law for managers, Sultan Chand & Sons, New Delhi, 2006.
4. Kapoor G.K, Lectures on Business & Corporate Laws, Sultan Chand & Sons, New Delhi, 2005.
5. Kuchhal M C, Mercantile Law, Vikas Publishing House Pvt.Ltd., New Delhi, 2004.
6. Praveen, Suggested Answers in Mercantile Law, Sultan Chand & Sons, New Delhi, 2005.

COM 2435 RISK MANAGEMENT 4Hrs/4Cr

Objective:
This course facilitates the students to understand the risks involved in business and to handle risks in business situations effectively .

UNIT I
Risk – meaning, types, characteristics, risk vs. uncertainty – risk management – introduction need, uses, scope and purpose.

UNIT II
Cost of Risk, cost of price change risk, RMIS, Organisation of Risk Management in Business – Process of risk management – methods of risk management.

UNIT III
Identification,measurement and control of Risk, Probability distribution and random variables, characteristics of probability distribution.

UNIT IV
Evaluation of frequency and severity of losses (Simple problems only) – Pooling of risk

UNIT V
Transfer of risks – Insurance as risk pooling arrangements – International financial risk management – spreading of risks and tax planning

Books for Reference:

1. Essentials of Risk management, Thomas S Colevan, Research Foundation of CFA, 2011.
2. Risk Management Principles and Practice- Dr.Rakesh Agarwal, The Insurance Times, 2009.
3. Risk Management in Finance, S.Arunajatesan, Vikas Publishing House, New Delhi, 2015.
4. Insurance and Risk Management, Mittal, Sultan Chand &Sons, NewDelhi, 2009.

COM 2437 LOGISTICS AND SUPPLY CHAIN MANAGEMENT 4Hrs/4Cr

Objective:

To give students an understanding of the problems and issues within the field, required reasoning and analysis and learn the critical elements of the logistics and supply chain process.

UNIT I

Logistics management: Origin and Definition – Types of logistics - logistics management – warehouse management – automation & outsourcing – customer service and logistics management - physical distribution and inventory - concepts

UNIT II

Types of inventory control – Demand forecasting – warehousing and stores management – routing – transportation management – commercial aspects in distribution management – codification – distribution channel management – Distribution Resource Planning (DRP)

UNIT III

Supply chain management: Introduction and development – Nature and concept – importance of supply chain – value chain – components of supply chain – global applications

UNIT IV

Role of manager in supply chain – supply chain performance drivers – key enablers in supply chain improvement – systems and values of supply chain

UNIT V

Aligning the supply chain with business strategies – SCOR model – outsourcing and 3 PLs – Fourth party logistics – Bull-whip effect and supply chain – supply chain relationships – conflicts, resolution strategies - certifications

Books for Reference:

1. Reji Ismail, Logistic Management – (Excel Books)
2. G. Raguram & N Rangaraj, Logistics and Supply Chain Management – cases & concepts, Mc Millan Publishers, 2009
3. Khanna K K – Logistics Approach: Physical Distribution Management
4. D K Agarwal, Text book of logistics and supply chain management, Mc Millan Publishers, 2008

COM 2439 INFORMATION TECHNOLOGY 5Hrs/5Cr

Objective:
This course equips the students to compete in the present world. It includes introduction to computers, the architecture-hardware and software, telecommunication networking and cyber laws.

UNIT I
Introduction to various business processes – Accounting Sale, purchase – Business Process Automation – Benefits and risks – Approaches to mapping – Data Flow diagrams – Business Process engineering.

UNIT II
Computing technologies & Hardware – Servers and points, population computing architectures, SAAS, cloud computing, Mobile computing – Overview of latest devices – technologies – L5, Bluetooth, Tablet, Wi-Fi, Android, Touchpad, iPad, iPod, Laptop, Notebook, Smart Phone.

UNIT III
Telecommunication Networks – Components - Data networks – LAN, WAN, Wireless, Private and Public networks

UNIT IV
Computing architecture – Internet architecture – e-commerce and M-commerce technologies.

UNIT V
ERP, Core Banking System – MIS & IT – Key types of application Controls and their need, Emerging concepts – Visualisation, Grid Computing, Cloud delivery model.

Books for Reference:

1. Wesley, Information Technology, Addition Publishing Co Ltd, New Delhi, 2008
2. Ravindranath H, Infrastructure for information technology, McMillan Pvt Ltd, New Delhi, 2010
3. Andren S Tannen Baum& Albert S Woodhull, Operating systems, Prentice Hall India, New Delhi, 2006
4. Alexis Leon &Mathews Leon, Fundamentals of Information Technology, Tata McGraw Hills Pvt. Ltd, New Delhi, 2010

COM 2202 காப்பீடு – கோட்பாடுகளும் நடைமுறைகளும் 3Hrs/2Cr

நோக்கம்:
காப்பீட்டின் இலக்கணம், வகைகள், கொள்கைகள் மற்றும் இடர்பாடுகள், இன்னல்கள் போன்றவற்றையும், காப்பீட்டின் முக்கிய அம்சங்களான முனைமம் கணக்கிடுதல், இழப்பீடு வழங்குதல் போன்றவற்றை விளக்குதல் இப்பாடத்தின் நோக்கமாகும்.

அலகு: I
காப்பீடு – தொடக்கப் பின்னணி – பொருள் - இலக்கணம் - கோட்பாடுகள் - முக்கிய வழி கூறுகள் - பணிகள் - காப்பீட்டின் முக்கியத்துவமும் பங்களிப்பும் - காப்பீட்டின் வகைகள் - இரட்டைக் காப்பீடு – மறு காப்பீடு.

அலகு: II

ஆயள் காப்பீடு – பொருள் - கோட்பாடுகள் - ஆயள் காப்பீட்டு பத்திர வகைகள் - ஆயுள் காப்பீடு செய்வதற்கான வழிமுறைகள் - முனைமம் செலுத்துதல் - சலுகை நாட்கள். பிரதி நியமனம் - ஒப்படைப்பு – தவறிய பத்திரம் - இழப்பு காப்பீட்டுத் தொகை வழங்குதல் - முகவர் அறிக்கை – பத்திரம் உரிமை இழப்பு – பத்திரம் உரிமை மீட்பு – சரண் மதிப்பு – காப்பீட்டுப் பத்திரத்தின் மூலம் கடன் பெறுதல். இந்திய ஆயுள் காப்பீட்டுக் கழகம் - தொடக்கம் - நோக்கங்கள்.

அலகு: III

கடல் காப்பீடு: பொருள் - பிரிவுகள் - கடல்சார் காப்பீட்டின் பத்திர வகைகள் - கடல்சார் நட்டத்தின் வகைகள் - இழப்பீட்டுத் தொகை வழங்குதல்.

அலகு: IV

தீ காப்பீடு: பொருள் - பல வகையான காப்பீட்டுப் பத்திரங்கள் - ஒப்பந்தத்தின் நிபந்தனைகள் - இழப்பீட்டுத் தொகை வழங்குதல்.

அலகு: V

காப்பீட்டு முறைப்படுத்தல் மற்றும் வளர்ச்சிக்கான அதிகார சட்டம் 1999 அறிமுகம் - நோக்கங்கள் - IRDA சட்டத்தின் சரத்துகள், அதிகாரங்கள் மற்றும் பணிகள். காப்பீடு தனியார் மயமாக்குதல் - ஆதரவும் எதிர்ப்பும் - தனியார் மயமாக்குதலின் தற்போதைய நிலை.

பரிந்துரைக்கப்படும் புத்தகங்கள்:

1. காப்பீடு கோட்பாடுகளும் நெறிமுறைகளும் - முனைவர் L.P.இராமலிங்கம், பேராசிரியர் T.S.ஜெயக்குமார், முனைவர் ஆ.செல்வக்குமார், மெரிட் இந்தியா பப்ளிகே'ன்ஸ், மதுரை, 2009.
2. Mishra M.N, Modern Concepts of Insurance, S.Chand and Co., Ltd., New Delhi, 2009.
3. Alka Singh, Insurance and Risk Management, Sultan Chand & Sons, New Delhi, 2010.
4. Mittal M.N, Insurance and Risk Management, Vikas Publishers, Mumbai, 2010.

COM 2532 CORPORATE ACCOUNTING 5Hrs/5Cr

Objective:

The objective of this course is to give a comprehensive understanding of all aspects relating to corporate accounting and to lay a theoretical foundation for the preparation and presentation of financial statements and to equip the students with the working knowledge of accounting practices in order in order to prepare for CA, CMA, and ACS.

UNIT I

Types of companies – Share capital – Types of shares – Issues, Forfeiture and reissue of shares – Issue and Redemption of Debentures and Preference shares.

UNIT II

Profits prior to Incorporation – Underwriting of Shares and rights issues – acquisition of Business by a Company.

UNIT III

Final Accounts of Companies – Preparation and presentation of final accounts of companies – bonus and dividend to shareholders – managerial remuneration – acquisition of business – pre-incorporation profits/loss.

UNIT IV

Amalgamation, Absorption and External Reconstruction – computation of purchase consideration – types of amalgamation – pooling of Interest method – purchase method – treatment of realisation expenses, Internal Reconstruction – types of reconstruction – reduction of share capital – reduction of liabilities – reduction of assets and disposal of balance of reconstruction account – scheme of reconstruction.

UNIT V

Liquidation – Liquidator's final statement of accounts – Accounting standards 14 - 26 – International Financial Reporting System – concepts.

Books for Reference:

1. M.C.Shukla, Advanced Accounting I, Sultan Chand & Sons., New Delhi,2009
2. Mukerjee and Hanif, Advanced Accounting Vol I, Tata McGraw Hill Company Limited, New Delhi,2009
3. S.P.Iyengar,Advanced Accounting Vol I, S.Chand & Sons, New Delhi, 2009
4. S.Kr.Paul, Advanced Accountancy Vol I,Central Publishing Company, Kolkatta, 2006

COM 2634 CORPORATE LAWS 6Hrs/6Cr

Objective:

This course orients students in laws relating to corporate entities with application of provisions from Companies Act 1956 and with applicable amendments made in 2013. It also provides insight to laws governing intellectual rights and loan disclosures.

UNIT I

Company – meaning- types of companies- nature- doctrine of incorporation & commencement of business- lifting of corporate veil- Memorandum of Association and its alteration – Doctrine of Ultra Vires – Articles of Association and its alteration – Doctrines of constructive notice and indoor management - Prospectus – Contents – Rules – Misstatements – liability

UNIT II

Membership in companies – Kinds – Rights and Liabilities – Shares – kinds – Application and allotment of shares - Transfer and Transmission of shares – Share certificate and Share Warrant.

UNIT III

Conduct of meetings- types- appointments-liquidation of companies- provisions as regards alteration of capital.

UNIT IV

Securitisation Act, 2002- NPA and disclosures- NPA management- in banks and insurance-Banking Regulation Act, 1949

UNIT V

Indian Patents Act, 1999- process of obtaining patents- patentable products- Offences-penalties.

Books for Reference:

1. Dr.Tuteja S.K, Business Law for managers, Sultan Chand & Sons, New Delhi, 2006.
2. Kapoor G.K, Lectures on Business & Corporate Laws, Sultan Chand & Sons, New Delhi, 2005.
3. Kuchhal M C, Mercantile Law, Vikas Publishing House Pvt. Ltd., Noida, 2004.
4. Praveen, Suggested Answers in Mercantile Law, Sultan Chand & Sons, New Delhi, 2005.

COM 2436 **BUSINESS ETHICS** **4Hrs/4Cr**

Objective:

This paper is aimed at imparting social, moral and ethical values into young minds which will create better businessmen with ethos.

UNIT I

Ethics: Meaning – Definition – Sources – Need for business ethics – Importance of business ethics – Factors influencing business ethics.

UNIT II

Principles: The "Seven Principles of Public Life" – selflessness, integrity, objectivity, accountability, openness, honesty and leadership.

UNIT III

Ethics in Marketing: Marketing ethics and consumer rights – Reasons for unethical practices – Socially responsible advertising – Portrayal of women in advertising.

UNIT IV

Ethics in Human Resource Management: Wages empowerment – Discrimination – Whistle blowing – Ethics at work place.

UNIT V

Ethical issues in society: Air pollution – Water pollution – Land pollution.

Books for Reference:

1. Dr. A.K. Gavai, Business Ethics, Himalaya Publishing House, Mumbai, 2008
2. R. V. Badi, N. V. Badi, Business Ethics, Vrinda Publications Ltd, Delhi,2012
3. Andrew Crane& Dirk Matten, Business Ethics, Oxford University press, United Kingdom,2010
4. C.S.V. Murthy, Business Ethics, Himalaya Publishing House, Mumbai,2010

COM 2438 **AUDITING AND ASSURANCE** **4Hrs/4Cr**

Objective:

The objective of the course is to gain knowledge to generally accept auditing principles, procedures, techniques and skills needed in the field of auditing. It mainly deals with the basic principles of auditing. It analyses the objects of expressing an opinion on statements of accounts, implication of reports, detection of errors and frauds. It elaborately discusses the various types of audit, its advantages, and conduct of audit, audit programmes, audit note book and working papers. It also covers internal audit, internal check and various vouching and depreciation methods. This course also makes a special study on valuation, verification of assets and liabilities and conducting of audit on limited companies.

UNIT I
Definition of Audit – objects - types of audit - statutory audit - private audit - Audit programme - audit notebook and working papers - Internal control - internal check - test check – Investigation

UNIT II
Vouching - cash transactions - trading transactions - impersonal ledgers - Verification and valuation of assets and liabilities - contingent liabilities - Reserves and provisions -general reserve - specific reserve - secret reserve - Provision for depreciation and doubtful debts - capital reserve

UNIT III
Audit of limited companies – qualifications - appointment, remuneration – removal - rights - Duties and liabilities of an auditor under the Companies Act

UNIT IV
Share capital audit - Share transfer audit - audit report - Standards of Auditing – Importance – Applications.

UNIT V
Audit of non-trading organisation – hospital - educational institution – hotel and clubs. Auditing in computerised environment - Systems audit.

Books for Reference:

1. Tandon B.N, Auditing, S Chand publishers, New Delhi, 2003.
2. Dinkar Pagre, Principles of Auditing, Sulthan Chand & Sons, New Delhi, 2002
3. Saxena and Saravanavel, Practical Auditing, Himalaya Publishing House, New Delhi, 2004
4. Khanna Pandey and Ahuja, Practical Auditing, S Chand & Co Ltd, New Delhi, 2002

COM 2440 **E-COMMERCE** **5Hrs/4Cr**

Objective:
The objective of this course is to make the student familiar with the mechanism of conducting business transactions through electronic media, understand the methodology of online business dealings using e-commerce infrastructure. After completing this course, a student is expected to be able to explain various components of e-commerce, understand the dynamics of e-commerce, appreciate the Internet technology and its utility in commercial activities, and understand the methodology of online business dealings using e-commerce infrastructure

UNIT I
Introduction to E-Commerce, features, and functions of e-commerce, e-commerce practices viz. traditional practices, scope and limitations of e-commerce, e-commerce security, Benefits, Impact of E-Commerce, State of e-commerce in India, problems and opportunities in ecommerce in India, legal issues, future of e-commerce.

UNIT II

Classification of E-Commerce, of E-Commerce Technology, Business Models, Framework of E-Commerce., Business to Business, Business to Customer, Customer to Customer, service provider, e-distributor, procurement and just-in-time delivery

UNIT III

Internet and its role in e-commerce, procedure of registering Internet domain, establishing connectivity to Internet, tools and services of Internet, procedure of opening e-mail accounts on internet.

UNIT IV

Transactions through Internet, requirements of e-payment systems, functioning of debit and credit cards, pre and post payment services, Marketing on the web, marketing strategies, creating web presence, advertising, customer service and support, web branding strategies, web selling models, Online booking systems, online booking procedure of railways, airlines, tourist and religious places, hotels and entertainment industry

UNIT V

Setting up Internet security, maintaining secure information, encryption, digital signature and their security measures, authenticity, privacy, integrity, non-repudiation, encryption, secret key cryptography, public key cryptography, SET, SSL, digital signatures, firewalls

Books for Reference:

1. Bharat Bhasker, Electronic Commerce -Framework, technologies and Applications, Tata McGraw Hill, 2002
2. Daniel Amor, E Business R (Evolution), Prentice Hall, 2nd Edition, 2001
3. Sandeep Krishnamurthy, E-Commerce Management, Vikas Publishing House, New Delhi, 2003
4. David Whiteley, E-Commerce: Strategy, Technologies and Applications, Tata McGraw Hill, 2009
5. P. T. Joseph, E-Commerce: A managerial Perspectives, Prentice Hall India, 2002

COM 3201 BUSINESS CORRESPONDENCE 3Hrs/2Cr

Objective:

The objective of the course is to equip the students to develop communication skills required to work in an organization. This course focuses on business letters namely letter of inquiry, offer and acceptance, complaints, claims and adjustments, credit and collection letters.

Unit I

Commercial correspondence – meaning & introduction – qualities of a good business letter – form & lay out of business letters – various occasions for drafting business letters

Unit II

Circular letters, sales letters - trade enquiries, offers & quotations (terms used in offers and quotations) - order letters

Unit III
Credit and status enquiries – replies to status inquiries, collection letters – collection process, features of collection letter, complaints and adjustments

Unit IV
Banking correspondence – customer to bank and bank to customer, insurance correspondence – life insurance – opening a policy

Unit V
Agency correspondence, correspondence with government, export import correspondence, letters for job situations.

Books for Reference:

1. Korlahalli & Rajendra Paul, Essentials of Business Communication, Sultan Sons, New Delhi
2. Hoami Pradan, Business Communication, Himalaya Publishing House, New Delhi.
3. Nicky Stanton, Mastering Communication, McMillan Pvt. Ltd., New Delhi.
4. Roy & Roy, Business Communication, Himalaya Publishing House, New Delhi.
5. Caul, Business Communication, Printice Hall of India Pvt., Ltd., New Delhi.

COM 3631 HIGHER ACCOUNTING 6Hrs/6Cr

Objective:
The objective of this course is to gain accounting knowledge in the various sectors like Insurance, Banking, Railways and Electricity. This is a one semester course deals with the preparation of final accounts of Insurance companies and banking companies double accounting system. Farm accounting, Hotel accounting. Few of the many Accounting standards in India are also dealt with.

UNIT I
Insolvency of sole trader and firm – Act of Insolvency – Official Receivers / Assignees – Preferential creditors – Secured creditors – Unsecured creditors – Deficiency account.

UNIT II
Accounting of banking companies – Forms of Business in which Banking companies may engage – Final Accounts of Banking companies – Accounting of Insurance companies – Accounts of Life Insurance Business – Revenue Accounts – Balance sheet – Accounts of General Insurance Business.

UNIT III
Accounting of Holding companies – Definitions – Consolidated Balance Sheet – Elimination of Common transactions – Treatment of Fictitious Assets, Unrealized Profit, contingent liabilities, Dividend, debentures – Disposal or Additional acquisition of shares in Subsidiary company – Revaluation of Assets.

UNIT IV
Double Account System –Meaning – Difference between Double Account System and Double Entry System – Accounts of Railways – Accounts of Electricity supply companies

UNIT V

Farm Accounting, Hotel Accounting, Government Accounting, Accounting standards - AS-1, 3, 6, 10, 14, 27, 39, 42.

Books for Reference:

1. M.C.Shukla, Advanced Accounting I, Sultan Chand & Sons., New Delhi,2009
2. Mukerjee and Hanif, Advanced Accounting Vol I, Tata McGraw Hill Company Limited, New Delhi,2009
3. S.P.Iyengar,Advanced Accounting Vol I, S.Chand & Sons, New Delhi, 2009
4. S.Kr.Paul, Advanced Accountancy Vol I,Central Publishing Company, Kolkatta, 2006

COM 3633 **INCOME TAX- I** **6Hrs/6Cr**

Objective:

The objective of this course is to provide knowledge on the basic concepts of income and taxability under Income tax Act, 1961 and to equip the students with the working knowledge of taxation practices in order in order to prepare for CA, CMA, and ACS.

UNIT I

Introduction – Various terms Income Tax Act, 1961 – Finance Bill – Definition of person, Assessee: Previous year, assessment year – Concept of income – Exempted income – Residential status & Incidence of Tax: Gross total income and total Income.

UNIT II

Computation of income from salaries – definition – Forms of salary – Perquisites - Gratuity – Pension – Lease Enhancement – Provident Fund – Deduction – Profit in lieu of salary.

UNIT III

Computation of income from house property – Definitions – Meaning of various terms – Gross Annual Value – Net Annual Value – Partly let out and partly self – occupied house – Part on the year let out and part of the year self-occupied – unrealized rent.

UNIT IV

Computation of income from Business / Profession / Vocation – Definitions – Business, Profession and Vocation – Methods of Accounting – Expenses expressly allowed – Allowed losses – Expenses expressly disallowed.

UNIT V

Computation of income from Capital gains – Definitions – Incomes that are taxed under other sources – Deductions – various kinds of securities – Tax Deducted at Source.

Books for Reference:

1. Dr.Vinod Singhania, Students guide to Income Tax, Taxman Publications, 2015.
2. Dinkar Pagare, Law and Practice of Income Tax, 26th edition, Sultan Chand & Sons, 2015.
3. Bhagwati Prasad, Income Tax & Practice 29th Edition, Vishwa Prakashan, 2015.
4. Dr.Vinod Singhania, Direct Taxes, Taxman Publications, New Delhi, 2015.

COM 3635 **COST ACCOUNTING I** **6Hrs/6Cr**

Objective:
This course deals with the techniques of cost computation. It explains the cost classification, especially with reference to "Elements of Cost", brings out the clear distinction between cost unit and cost center, and considers inventory control, labour cost control and overhead control. It envelops in it ambit the different methods of costing such as unit costing, contract costing etc.

UNIT I
Introduction-limitations of financial accounting, meaning and scope of cost accounting, objectives and advantages of cost accounting, costing-an aid to management, financial accounting vs cost accounting, limitations and objections against cost accounting, costing system, characteristics of an ideal cost accounting, installation of costing system- steps for installation-practical difficulties in installing a costing system, steps to overcome practical difficulties, cost units, methods of costing, types of costing, evolution of development of cost accounting

UNIT II
Elements of cost, Expenses excluded from cost, cost sheet or statements of cost, treatment of stock, cost concepts, cost classification, Materials- Purchase control-Purchase procedure-Functions of stores department-EOQ- Stock levels- ABC analysis- VED analysis- Various methods of pricing of material issues- Treatment of wastage, scrap, defectives and spoilage

UNIT III
Labour- Introduction- Labour costs, control over labour costs, personnel department, functions, Time and motion study, Time keeping vs Time booking, Essential features of good wage system, systems of wage payment, time wage system, piece rate system, premium and bonus plan, group bonus schemes, co-partnership and profit sharing schemes, idle time, over time treatment of wages for work on holiday, out workers, casual worker, labour turnover

UNIT IV
Definition of overhead- Classification- Steps in overhead accounting-Collection of production overhead allocation and apportionment of overhead to cost centers (Departmentalization of overhead), Reapportionment of service department expenses – Overhead absorption- Absorption rates- over absorption and under absorption treatment

UNIT V
Job costing, Batch costing, Contract costing

Books for Reference:

1. Arora M N Cost Accounting – Principles and Practice, Vikas Publishing House, Noida, 2004.
2. Maheswari S N, Principles of Cost Accounting, Sultan Chand & Sons, New Delhi, 2003.
3. Arora M N, A Text book of Cost Accountancy, Vikas Publishing House, New Delhi, 2004.
4. Iyengar, S P. Cost Accounting, Sultan Chand & Sons, New Delhi, 2005.

COM 3537 **HUMAN RESOURCE MANAGEMENT** **5Hrs/5Cr**

Objective:
This course sheds light on proper utilisation of human resource and empowerment. This course covers the role of human resource management and qualities necessary for a human resource manager. It includes planning and organizing the human resource function, different types of leadership and various methods of motivating human beings, job satisfaction and morale. This course also includes procurement of human resources, man power planning, performance appraisal and training and development

UNIT I
Introduction – Definitions – Functions – Objectives of human resource management – Planning human resource function: Human resource philosophy – Human resource objectives – functions to be performed – duties and responsibilities. Human resource policies – needs – types – Guidelines for formulating human resource policies – Organizing.

UNIT II
Leadership: Definition – Need – Functions – Approaches to study leadership – Leadership style – Motivation: Definition – Approaches – characteristics – Motivation Theories – Incentives – Job satisfaction and Morale.

UNIT III
Procurement of personnel: Determinants of quality of human resources – Determinants of quantity of human resource – Objectives of manpower planning – Process recruitment and selection - selection techniques – Placement and Induction

UNIT IV
Performance Appraisal: Purposes of appraisal – Criteria of performance Appraisal – methods – performance appraisal of managers – Limitations – post appraisal interview – Frequency of appraisal – essentials of good appraisal system – evaluation of performance appraisal system.

UNIT V
Training and Development: Training, Education and development – principles of learning – need and objectives of training – Determining training needs – training methods for operative – management development methods – organisation development- Grievances – Meaning – Causes – Grievance procedure.

Books for Reference:
1. Sheikh A M Human Resource Development and Management – S Chand Publishers, New Delhi, 2003.
2. Mamoria C B Personnel Management Kitab Mahal, Calcutta, 2002.
3. Prasad, L.M, Human Resource Management, Sultan Chand & Sons, 2006.
4. Gupta C B, Human Resource Management, Sultan Chand & Sons, 2005.

COM 3202 **EXPORT MARKETING** **3Hrs/2Cr**

Objective:
The objective of this course is to gain understanding in the field of export marketing and to provide adequate knowledge in licensing procedures, export financing, export incentives. This is one semester course designed to understand the role of export marketing in the economy. It covers the various aspects of licensing procedures and export financing and export incentives. It also further covers various institutions which help in promoting exports.

UNIT I
Role of Exports in a developing economy - Export Marketing Environment-Selection of export markets-selection of products-entry into market-direct and indirect - Pre shipment Inspection

UNIT II
Exports Procedure under regulations-export trade control-categories of exporters-OGL Licensing Procedure-code numbers-export declaration forms-customs regulations

UNIT III
Export finance-commercial banks-ECGC-EXIM bank-Market Development fund

UNIT IV
Export Incentives-cash compensatory support-replenishment licenses-Duty drawback central excise rebate

UNIT V
Promotion Institutions-Ministry of Commerce-commodity boards-export promotional council-Trade Development Authority- Directorate of Fairs and Exhibitions-EPZ-Regional Groups - Consultancy Services

Books for Reference:
1. Francis Cherunilam, International Marketing, Himalaya Publishing House, New Delhi, 2012
2. Bhattacharya, International Trade, Chand & Sons, New Delhi, 2012
3. Balagopal T.A.S, Export Management, Himalaya Publishing House, New Delhi, 2012.
4. Yuvaraj, International Marketing, Tamilnadu book house, Chennai, 2012

COM 3200 **ENVIRONMENTAL STUDIES** **4Hrs/2Cr**

Objective:
This course facilitates the students to get adequate knowledge on environmental problems and to develop an attitude towards the betterment of environment.

UNIT I
Multidisciplinary nature of environmental studies: Definition, scope and importance & Need for public awareness, Natural Resources: Renewable and non-renewable resources - Natural resources and associated problems - Forest resources: Use and over-exploitation, deforestation, case studies - Timber extraction, mining, dams and their effects on forest and tribal people - water resources : Use and over-utilization of surface and ground water, floods,

drought, conflicts over water, dams-benefits and problems - Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies - Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies - Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources. Case studies - Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification - Role of an individual in conservation of natural resources - Equitable use of resources for sustainable lifestyles.

UNIT II

Ecosystems: Concept of an ecosystem, Structure and function of an ecosystem, Producers, consumers and decomposers - Energy flow in the ecosystem - Ecological succession - Food chains, food webs and ecological pyramids - Introduction, types, characteristic features, structure and function of the Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries), Biodiversity and its conservation - Introduction – Definition: genetic, species and ecosystem diversity, Bio-geographical classification of India, Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values, Biodiversity at global, National and local levels, India as a mega-diversity nation, Hot-sports of biodiversity - Threats to biodiversity : habitat loss, poaching of wildlife, man-wildlife conflicts, Endangered and endemic species of India - Conservation of biodiversity : In-situ and Ex-situ conservation of biodiversity.

UNIT III

Environmental Pollution: Definition, Cause, effects and control measures of Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards, Solid waste Management: Causes, effects and control measures of urban and industrial wastes - Role of an individual in prevention of pollution - Pollution case studies - Disaster management: floods, earthquake, cyclone and landslides,

UNIT IV

Social Issues and the Environment - From Unsustainable to Sustainable development - Urban problems related to energy - Water conservation, rain water harvesting, watershed management - Resettlement and rehabilitation of people; its problems and concerns. Case Studies - Environmental ethics: Issues and possible solutions - Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies - Wasteland reclamation, Consumerism and waste products, Environment Protection Act, Air (Prevention and Control of Pollution) Act, Water (Prevention and control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act, Issues involved in enforcement of environmental legislation, Public awareness.

UNIT V

Human Population and the Environment: Population growth, variation among nations, Population explosion – Family Welfare Programme, Visit to a local area to document environmental assets river/forest/grassland/hill/mountain - Visit to a local polluted site-Urban/Rural/Industrial/Agricultural - Study of common plants, insects, birds - Study of simple ecosystems-pond, river, hill slopes, etc.

Books for Reference:

1. http://collegesat.du.ac.in/UG/Envinromental%20Studies_ebook.pdf
2. Sankaran s., Environmental Economics, Margham publication, Chennai, 1998.
3. Francies cherunellum "Business environment" Himalaya publishing, 2004.
4. S.P. Gupta, "Environmental Issues for the 21st century Ied., Mittal Publications. New Delhi. 2003
5. E.EI. Hinnawi & A.K Piswas, "Renewable sources of Energy and the Environment, Tycooly international publishing co., 1981
6. Subramanian N.S and Sambamoorthy A.V "Ecology", Narosa Publishing House, New Delhi, 2000.

COM 3632 MANAGEMENT ACCOUNTING 6Hrs/6Cr

Objective:

The objective of this course is to enhance skills on analysing of financial statements and in decision making and to equip the students with the working knowledge of accounting practices in order in order to prepare for CA, CMA and ACS.

UNIT I

Introduction to Management accounting – Difference between management accounting and financial accounting. Analysis and interpretation of accounting statements: Trend analysis, Common size statements, and Comparative statements, accounting ratios: Important accounting ratios – Trading on equity capital gearing - Preparation of trading profit and loss account and balance sheet.

UNIT II

Fund flow statement – Schedule of Changes in Working Capital – Cash flow statement – Difference between Fund Flow Statement and Cash Flow statement.

UNIT III

Working Capital Management – meaning of working capital – Types of Working Capital – Factors Determining Working Capital, Break Even analysis - Break Even chart – Application of marginal costing in decision making – C.V.P analysis.

UNIT IV

Capitalization: Over Capitalization - Causes of over capitalization – Under capitalization – Causes of under Capitalization – consequences of over and under capitalization.

UNIT V

Concept of Capital Budgeting – Importance – Kinds of Capital investment proposals – Capital Budgeting Appraisal Methods – Capital Rationing.

Books for Reference:

1. Khan M & Jain Y, Cost and Management accounting, Tata McGraw Hill India Ltd., New Delhi, 2002.
2. Ramachandran & Srinivasan, Management Accounting, Sriram Publications, 2004.
3. Goyal, Manmohan, Management Accounting, Sahitya Bhawan, Agra, 2003.
4. Pandey, I.M, Management Accounting, Vikas Publishing House, 2004

COM 3634 **INCOME TAX II** **6Hrs/6Cr**

Objective:
The objective of this course is to provide with the procedures of computation of income and tax liability of various assesses and to equip the students with the working knowledge of taxation practice in order to prepare for CA, CMA, and ACS.

UNIT I
Income tax authorities and their powers – Appointment – Powers – Duties of Tax authorities – Assessing Officer – Administrative Hierarchy of tax authorities.

UNIT II
Assessment of Individuals – various income included of and individual – Taxable Income – tax liability – Problems on computation of taxable income of an individual – clubbing of incomes – deemed income.- clubbing of income set off and carry forward of losses.

UNIT III
Assessment of Hindu undivided families – introduction – basic conditions of HUF – basis of computation of Taxable income – tax liability – problems on computation of taxable income of HUF.

UNIT IV
Assessment of firms (PFAS and AOP) – Scheme of Taxation – calculation of remuneration of Partners - tax liability – problems of computation of taxable income of Firm and Partners.

UNIT V
Assessment of Companies – Assessment of Companies – Kinds of companies and its definitions – Residential Status of a Company – Minimum Alternate Tax (MAT)
Procedures of assessment and collection and recovery of tax: Filing of Return and Due Dates - Forms of returns – assessment – Types of Assessment – Advance payment of Tax – Penalties and prosecutions – Refund of excess tax – Appeals and revisions – Permanent Account Number – Tax Planning – E-filling – Tax Holiday – Direct Taxes Code – concepts.

Books for Reference;

1. Dr.Vinod Singhania, Students guide to Income Tax, Taxman Publications, 2015.
2. Dinkar Pagare, Law and Practice of Income Tax, 26th edition, Sultan Chand & Sons, 2015.
3. Bhagawathi Prasad, Income tax Law and Practice, 29th edition, Vishwa Prakashan, 2015.
4. Dr.Vinod Singhania, Direct Taxes, Taxman Publications, 2015.

COM 3636 **COST ACCOUNTING II** **6Hrs/6Cr**

Objective:
The objective of the course is to impart knowledge on the application of various costing techniques. This course launches upon the vital areas of "cost control". It covers marginal costing technique, budgetary control and standard costing, which are applied to managerial decision making.

UNIT I
Unit costing, Process costing, Joint product costing.

UNIT II
Operation costing, Service costing, Transport costing, Classification costs, Collection of costs, ascertainment of costs, service cost and management decisions, canteen costing, multiple operation costing

UNIT III
Process Costing: Application of process costing, comparison between job costing and process costing, elements of production and abnormal process loss, inter process profits, Meaning of equivalent production, calculation of equivalent production, joint products costing, non-cost or sales value method or cost methods, Reconciliation of cost and financial accounts, Need for reconciliation, Reason for disagreement in profit, preparation of reconciliation statements

UNIT IV
Budgetary Control, Meaning and need for budget, Budget organisation, Kinds of budgets, ZBB Merits and limitations of Budgetary control

UNIT V
Standard costing, Meaning, Merits and Demerits, Material, Labour, Overheads and Sales variance

Books for reference:

1. Arora M N Cost Accounting – Principles and Practice, Vikas Publishing House, Noida, 2004.
2. Maheswari S N, Principles of Cost Accounting, Sultan Chand & Sons, New Delhi, 2003.
3. Arora M N, A Text book of Cost Accountancy, Vikas Publishing House, New Delhi, 2004.
4. Iyengar, S P. Cost Accounting, Sultan Chand & Sons, New Delhi, 2005.

COM 3538 INVESTMENT MANAGEMENT 5Hrs/5Cr

Objective:
This paper envisions the fundamentals of investment, security markets and analysis for better investment planning.

UNIT I
Investment: Meaning of investment – definition of investment – nature of investment – need of investment – investment environment – scope of investment – speculation, gambling – investment principles – investment process.

UNIT II
Investment avenues: features of equity shares, preference shares and it types – bonds and its various types – features – innovative financial instruments – convertible debentures and warrants – characteristics – zero coupon – bonds – deep discount bond – secured premium notes – post office saving schemes – LIC policies – mutual funds.

UNIT III

Return: historical vs. expected risk – computation of historical & expected return of stock-current yield – investment risks: Systematic risk – market risk – interest rate risk – purchasing power risk – unsystematic risk – business risk – financial risk.

UNIT IV

Securities market: New issue market – Organisation structure of New Issue Market (NIM) – functions of NIM – Mechanics of floating new issue – Secondary Market – definition of Stock exchange – function of stock exchange market – Organisation of stock exchanges in India – mechanics of security trading in stock exchange – stock market indices – NSE index – BSE index.

UNIT V

Listing of securities: scope – objectives of listing – advantages of listing – disadvantages of listing – Security dealings and government: securities contracts (Regulation) Act 1956 – Securities and Exchange Board of India (SEBI)

Books for Reference:

1. Dr.Preethi Singh, Investment management – Himalaya Publishing House, New Delhi, 2003.
2. Fischer and Jordan, Security Analysis and Portfolio Management – Prentice Hall India Ltd., New Delhi, 2002.
3. Alexander and Bailey, Investments – Prentice Hall of India Ltd., New Delhi, 2004.
4. Avadani, Investment Management, Himalaya Publishing House, New Delhi, 2003.

Department of Religion, Philosophy and Sociology
Choice Based Credit System

Program for B.A. Degree in RPS

SEM	Part	Course No.	Course Title	Hr / Wk	Cr
I	I	XXX 0000	TAM / FRE / HIN / JPN	3	2
I	II	ENG 1201	Conversational Skills	3	2
I	III	RPS 1431	Academic Study of Religion	4	4
I	III	RPS 1433	Introduction to Philosophy	4	4
I	III	RPS 1531	Introduction to Sociology	5	5
I	III S	RPS 1435	Social Anthropology: Origin of Man and Society	5	4
I	IV NME	RPS 1233	Understanding the Universe and Infinity	3	2
I	IV LS	RPS 1231	Working in Groups	3	2
			Total	**30**	**25**
II	I	XXX 0000	TAM / FRE / HIN / JPN	3	2
II	II	ENG 1202	Reading & Writing Skills	3	2
II	III	RPS 1532	Introduction to World Religions - I	5	5
II	III	RPS 1432	Ancient Indian Philosophy	4	4
II	III	RPS 1434	Study of Indian Society	4	4
II	III S	RPS 1436	Introduction to Psychology	5	4
II	IV NME	RPS 1234	Elements of Philosophy of Science	3	2
II	IV LS	RPS 1232	Social Skills	3	2
			Total	**30**	**25**
III	I	XXX 0000	TAM / FRE / HIN / JPN	3	2
III	II	ENG 2201	Study Skills	3	2
III	III	RPS 2531	Introduction to World Religions - II	5	5
III	III	RPS 2533	Classical Indian Philosophy	5	5
III	III	RPS 2433	Logic	4	4
III	III	RPS 2535	Understanding Social Structure	5	5
III	III S	RPS 2436	Philosophy of Religion	5	4
			Total	**30**	**27**
IV	I	XXX 0000	TAM / FRE / HIN / JPN	3	2
IV	II	ENG 2202	Career Skills	3	2
IV	III	RPS 2432	Saiva Siddhanta	4	4
IV	III	RPS 2532	Ethics	5	5
IV	III	RPS 2534	Social Structure in India	5	5
IV	III	RPS 2536	Project in Sociology	5	5
IV	III S	RPS 2510	Social and Political Philosophy	5	4
			Total	**30**	**27**

SEM	Part	Course No.	Course Title	Hr / Wk	Cr
V	III	RPS 3631	Cults and Doctrines of Hinduism	6	6
V	III	RPS 3533	History of Western Philosophy - I	5	5
V	III	RPS 3635	Sociological Theory - I	6	6
V	III	RPS 3637	Modern Indian Philosophy	6	6
V	IV LS	RPS 3231	Introduction to Critical Thinking	3	2
V	IV	VAL 3230	Value Education	4	2
			Total	**30**	**27**
VI	III	RPS 3632	Introduction to Christianity	6	6
VI	III	RPS 3534	History of Western Philosophy - II	5	5
VI	III	RPS 3636	Sociological Theory - II	6	6
VI	III	RPS 3638	Introduction to Islam	6	6
VI	IV LS	RPS 3232	Skills for Career Development	3	2
VI	IV	RPS 3200	Environment and Ethical Issues	4	2
			Total	**30**	**27**
			Grand total for Semester I - VI	**180**	**158**

LS : Life Skills courses
NME : Non-Major Elective courses
S : Supportive courses
VAL : Value Education
EVS : Environmental Studies

DEPARTMENT OF RELIGION, PHILOSOPHY AND SOCIOLOGY
OBJECTIVES AND GUIDELINES FOR THE PROPOSED CURRICULUM (2015-2016)

On revisiting our teaching experiences and on the basis of quite a bit of reflections that we have received from our students on the courses that were taught and learnt, the department of RPS tread up on introducing a new set of courses for the undergraduate programme from the academic year 2015-2016. Our deliberations on introduction of courses on the basis of student centric approach, employability, skill development, making an attempt to synthesize the three disciplinary approaches of the department and also taking into account of the issues of relevant and recent developments in the said disciplines seem to take us nowhere as we found that we are still lacking in evolving a common objective or vision for the department so as to either to accommodate or disengage the said issues that were deliberated. It means that the aims and objectives of the department if specified at the outset will help us to delineate the various issues to be addressed in structuring the courses or the programme of the department.

The department of RPS is conscious of the transformation in the meaning of education that are taking place in the outside world, especially in terms of the shift from a liberating consciousness to a techno-managerial skill based, market centered education. The relevancy in knowledge scheme is nothing but the market dictum. Under these changing circumstances, the humanities in general and the department of Religion Philosophy and Sociology in particular has to necessarily contest with the spheres of market trends, science and technology departments and the newly emerging academic frontiers.

Regaining one's legitimate status in the domain of knowledge must necessarily involve a fight against these hostile circumstances. This struggle can be fought meaningfully, if and only if the adherents, namely, students and faculty of Religion, Philosophy and Sociology realize that there is a close relationship between these three said disciplines as a body of knowledge and a profound philosophy of liberal education. *By liberal education we mean, "the education that promotes critical reflexivity, moral sensitivity and inclusiveness"* Keeping the philosophy of liberal education as an objective the department is not intended to manufacture "resources" for the market but to cultivate human sensitivity and critical consciousness. This objective, namely, evolving courses within the frame work of the philosophy of liberal education, not only suits the very curriculum of the three programmes of study but also meet the organizational goal, that is, meeting the vision of the American college, namely, providing liberal Christian higher education. This objective certainly enables the department of Religion, Philosophy and Sociology as the fulcrum of liberal education of the American college.

Therefore the courses or the programmes of study are to be designed to give the student maximum opportunity to get a broad liberal education through a multi disciplinary humanities, not an inter-disciplinary programme of study, expressed in terms of study of Religion, Philosophy and Sociology. While the courses on Philosophy are to be designed to help students to think critically and constructively, courses on Religion are to give insight into ethical and religious values, and courses on Sociology are to train students for constructive citizenship in a free and changing society.
While committed to the secular tradition, the courses on religion do not profess a single religious consensus. The courses delineate in the midst of a pluralistic religious milieu. Because of this diversity, the study of religion includes a variety of skills: Investigation from

a diversified points of view such as historical philosophical and sociological, textual criticism, ethical analysis and cultural interpretation. To all of this must be added the essential ingredient of empathetic tolerance for the claim that other individuals make regarding what they perceive as ultimate truth. In this light our courses seek to sympathetically explore, compare, evaluate and appreciate the varied religious insights of human kind.

Courses on philosophy are designed to deal with the fundamental questions on reality, truth, knowledge, morality and freedom. By engaging in an inquiry into such perennial philosophical questions, the courses on philosophy aim at developing an awareness of intellectual history that cut across the boundaries of science, art, politics, society and religion. Courses on philosophy are designed to examine alternative world views and forms of knowledge. Furthermore, care has been taken to develop the critical thinking ability, exposition to different kinds of ethical and moral stands and to provide the skills for an analysis of the assumptions and values which underlie different intellectual disciplines especially science, religion and sociology. To this extent the courses on philosophy is central to the liberal education.

At last the envisioned liberal tradition is to be reflected in the sociology curriculum. It is not because the value stand that we take towards teaching sociology curriculum but because of the very fact that sociology as a discipline emerged amidst moral sensitivity, critical consciousness and reflexivity crept into the historical changes that took place in the post enlightenment era. In other words, the liberal tradition expressed in terms of reflexivity, moral sensitivity and critical consciousness form inherent components of the sociological body of knowledge. This liberal tradition is not only traced in the origin of sociology but also in every other historical contexts ranging from modernity to post modernity in both the western and Indian context.

Therefore, while we contemplate on evolving a new curriculum for the disciplines namely, Religion, Philosophy and Sociology, we take the philosophy of liberal education as our guiding principle and the objective to be realized both in terms of the curriculum and the pedagogy. While we come out with individual courses in each one of the three disciplines, care must be taken to justify and to establish that the course engages in or inherently contain the discourse of critical consciousness, reflexivity, moral sensitivity, pluralistic tendency and could give space for agency.

RPS 1431 **ACADEMIC STUDY OF RELIGION** **4 hr / 4 cr**

Objective: *This course is a study of religion as a discipline using the methodology of Philosophy and Sociology to gain insight from the respective disciplinary perspective on the nature of God, Man and the World. As an introductory course on religion, it helps the students to orient themselves to study religion by way of social science and comparative disciplinary perspectives.*

I – Religion: Meaning and Scope of study
Definition of Religion – Philosophical, Sociological and Anthropological; Approaching religion through reason and faith – Qualities required for a disciplinary study of religion – Impersonality, respecting other faiths, tolerance and dialogue

II – Disciplinary approaches to study God and Religion
Philosophical, Sociological, Anthropological and Psychological points of view of God – Relationship between God, Man and Society in various disciplinary perspectives – The attributed meaning behind being religious, the need for religion – religion as a tool to view and explain the world and its processes.

III – Origin of Religion
Mythological explanation for the origin of universe in different religions - Different theories on origin of religion – Animism, Animatism, Naturism, Fetishism, Totemism, Ancestor worship, Manaism, Religion – Magic and Science

IV – World views: Religion and Social Science
The concept of Creation Vs Evolution, meaning of life and death, concept of Karma & Dharma, Sin and Rebirth - Social and Philosophical concept of Morality, Ethics and Values - Concept of Yuga – "Day of Judgment" – Kingdom of God, Moksha and Liberation - concept of history and human emancipation in Philosophy and Sociology.

V – Religion and life Issues
Concepts of Dharma – Love – Brotherhood – Truth – Nonviolence – forgiveness in different religions and the philosophical and sociological conception of equality, liberty, justice, peace and solidarity.

Ref:

1. "Studies in Religion", Alain Bouchard, SAGE Publication
2. "Religion in Sociological Perspective", Keith A. Roberts and David Vamane, SAGE Publication, 6th Edition, 2012
3. "Religion, Realism and Social Theory", Phillip A. Mellor, SAGE Publication, 2005

RPS 1433 **INTRODUCTION TO PHILOSOPHY** **4 hr / 4 cr**

Objective: *This course is an introduction to the central problems of Philosophy. This course helps students to reflect on the nature of Reality, Knowledge, Morality and Beauty.*

I – The Nature of Philosophy
Nature, Scope and methods of Philosophy – The origin of philosophical thinking – Questions of meaning and truth – Philosophy and Science – Requirements for philosophizing

II – Subject matter of Philosophy
Metaphysics – Epistemology – Ethics – Logic – Aesthetics – Philosophies of Religion, Science, Law, Education, Language

III – Problems of Philosophy
The problems of appearance and Reality – Problems of mind & body – The problems of Universals and Particulars – Problem of truth and falsehood – Problems of Knowledge and Error

IV – Methods and Approaches in Philosophy
Logical method – Empirical method – Transcendental method – Critical method – Traditional – Analytic – Pragmatic – Existential – Phenomenological approaches

V – Value of Philosophy
Need to form world views – Taking stand on issues – To understand one's own Self, World, Society and issues of God, Morality, Justice and Knowledge.

Reference:
1. Bertrand Russell – "The Problems of Philosophy"
2. A.C. Ewing – "The Fundamental Questions of Philosophy"
3. George Thomas Patrick – "Introduction to Philosophy"

RPS 1531 INTRODUCTION TO SOCIOLOGY 5 hr / 5 cr

Objective: *This course contextualizes the emergence of systematic study of society with the goal of acquainting the methods and approaches to study society. Included is an introduction of different concepts to understand individual and society.*

I – Origin of Sociology

A: <u>In the West</u>
Enlightenment, Industrial revolution and French revolution and Reflections about society – Industrial revolution and new social problems – Changes in forms of government, economic system and colonization – Study of one's own society and other primitive society

B: <u>In India</u>
Ancient social political thought – India encountering the west – Impact of traders, travellers and missionaries – Western philosophical, scientific traditions – Passage of India from colonial rule to republic state

II – Sociology and other Social Sciences
Sociology and its relationship with Philosophy, Anthropology, Political Science, Economics and Psychology.

III – Methodology in Sociology

a) Traditional methods: Scientific methods to study society – Quantification – Generalization – Arriving at laws – Objectivity – Value freedom – Methods of data collection
b) Recent methods: Phenomenological method, Interpretative technique – Critical approach – Constructivist approach

IV – Approaches to study Society

Various perspectives on society: Positivist, Functionalist, Interactionist, Ethno methodologist and Constructivist – Society as structure, recurrence, contradiction, culture, process and as meaning creating site

V – Understanding Individual & Society through Concepts

Social groups – Its nature and types – Culture, its features, components – Cognitive, normative, and material; social system, Structure, Functions, Differentiation, Stratifications and institutions -Concept of Self – Socialization - Development of Personality, Role, Status – It's kinds – Norms and Values

Reference:

1. "What is Sociology?", Inkeles, Alex, Prentice Hall of India Pvt. Ltd., New Delhi, 1987
2. "A hand book of Sociology", Ogburn, William F and Mayer, F. Nimkoff, Routledge and Kegon Paul Ltd.,
London, 1964
3. "Sociology: A guide to Problems and Literature", T. B. Bottomore, George Allen and Unwin, Ltd., London, 1962.

RPS 1435 SOCIAL ANTHROPOLOGY: ORIGIN OF MAN AND SOCIETY

5 hr / 4 cr

Objective: *This course introduces the origin of man and society from scientific and anthropological perspectives. The study of human beings as biological organisms, their early cultural attainments and their adaptation giving rise to different types of social organization that will enable the student to locate himself in a larger historical time framework.*

I – The Central theme of Social Sciences: Human Beings

Man and his reflexivity on himself, nature and society – Human beings in social milieu – Social science as the reflective study of human beings – Knowledge production in human context – Identification of universalities and specificities in human society

II – The origin of Man

Ramapithecus Punjabicus, Home Africanus, Homo Erectus, Homo Sapiens Neanderthals and Homo sapiens - Sapiens

III – Cultural Evolution

Changes in Tool making ability - Tools in Paleolithic, Neolithic, Bronze age and Iron age – Foraging, Tool making, Hunting, Food producing, controlling live stock – Pottery – Baking, Brewing, Spun, Ornaments for spiritual ceremonies – early belief systems

IV – Man and Nature
Adaptation and interaction – Adaptations among Eskimos, Kazak, Chotta Nagpur Plateau as examples – Thought and Culture – Language – Link between cultural and biological evolution – Clan – Descent - Lineage

V – Types of Social Organization
Hunting – Gathering society and Horticultural society – Emergence of social institutions and interactions – Specialization and Division of Labour – Domestication, Pastoral societies, Settlement and farming – Agricultural society – Mercantile societies and industrial societies

Reference:

1. "An Introduction to Cultural and Social Anthropology", Peter B. Hammond, Macmillan Publication Co. Inc. , New York, 1978
2. "An Introduction to Social Anthropology", D.N. Majumdar and T.N. Madan, National Publishing House, 1989
3. "Culture, People, Nature – An Introduction to general Anthropology", Marvin Harris, Published by Thomas Y. Corn Well, New York

RPS 1233 UNDERSTANDING THE UNIVERSE AND INFINITY 3 hr / 2 cr

Objective: *This course aims at introducing the extent of the physical universe through the exposition of the various components of the universe in terms of its enormity. The goal of this introductory course is to provide the base for concept of infinity and to approach the physical reality in terms of larger issues in philosophy and in Mathematics.*

I – Conception of Universe through the ages
Geocentric universe – Ptolemy – The Copernican revolution – Kepler's laws of planetary motion – Tycho Brahe's observations of planetary positions – Galileo's discovery

II – The extent of the physical universe
Methods to measure the distances in the universe – The solar family – Constellations – The milky way - The galaxy – The universe without a centre and a boundary – Interstellar and intergalactic space

III – Life story of a star
Methods of determining the distances to nearby stars – Stellar motion – Birth of a star – Proto star – Red giant – White dwarf – Neutron star – Supernova

IV – The ever expanding universe
Hubble's study on the movement of galaxies – Theories on the origin of universe – Big bang theory – Steady state theory – The implication on the extent of the universe

V – Conception of Infinity
Greek's Apeiron - Georg Cantor's degrees of infinity – Absolute Infinite – the physical infinite and the mathematical infinities

Ref:

1. "Understanding the Universe: From Quarks to the Cosmos", Don Lincoln, World Scientific Publishing Company, 2004
2. "The Universe in a Nutshell", Stephen Hawking, Bantam Books, 2001
3. "Infinity and the Mind" - Rudy Rucker, Bantam New Age Books, 1982

RPS 1231 WORKING IN GROUPS 3 hr / 2 cr

Objective: *This course aims at imparting skills needed for the students to work in a group and to develop skills for team building and evolving consensus.*

I – Introduction to Groups
Nature of Groups – Social groups – Types of groups – Purpose of groups

II – Group Dynamics
Work group – Definition – Stages in the formation of a group – Roles in a work group – Understanding Hierarchical and Non Hierarchical structure – Advantages and Disadvantages

III – Team Building
Differences between Group and Team – Characteristics of a team – Team building & Team Management – Vision & Mission statements – Goals – Roles of team members - Practicals

IV – Communication
Definition - Types of communication – Styles of communication – Patterns of Communication – Skills required for effective communication – Negotiation skills

V – Problems in Groups
Causes for problems in groups – Identifying and addressing problems in groups – Methods of solving problems – Brainstorming – Conflict resolution

Ref:

1. "Effective Team Building", John Adair
2. "The Dynamics of Group Behaviour, Concepts, Principles and Practices", Vol. -1, M. Ganghadar Rao & Surya P. Rao
3. "Team Building", Glenn M. Parker & Richard P. Kropp

RPS 1532 INTRODUCTION TO WORLD RELIGIONS – I 5 hr / 5 cr

Objective: *This course is a survey of the major religious traditions which have either emerged in India or find a place exclusively in India. Special attention is given to the sects of these religious traditions along with the belief and practices.*

I – Zoroastrianism
Founder – Conception of God with equal and opposite qualities – Zoroastrian sacred book, ritual and worship – Zoroastrianism in India

II – Hinduism
Vedic Hinduism – Vedas, Upanishads and Hindu scriptures – Beliefs in Atman, Brahman – Sects within Hinduism – Saivism, Vaishnavism,

III – Jainism
Thirthankaras, concept of Jiva, Ahimsa – Sects within Jainism – Jainism as a heterodox religion - Jaina worship and rituals

IV - Buddhism
Life of Buddha- Four noble truths, eight fold path, sects within Buddhism – Buddhism as a heterodox religion – Buddhist worship and rituals – Neo Buddhism

V – Sikhism
Origin of Sikhism, Ten Gurus, Adi granth, Sects in Sikhism, beliefs and practices in Sikhism

Ref:

1. "On World Religions", Anindita N. Balslev, SAGE Publications, 2014
2. "Modern Trends in World Religions", Kitagawa, J.M. Lasalle, Illinois, Open Court Publishing Co., 1967
3. "Hinduism through the Ages", D.S. Sharma
4. "Buddhism: An Introduction and Guide", Humphrey C., Penguin Books , 1990

RPS 1432 ANCIENT INDIAN PHILOSOPHY 4 hr / 4 cr

Objective: *This course introduces the beginning of Indian Philosophy. Special attention is given to the question of reality and the different contestations of it by juxtaposing the Vedic traditions with Carvaka, Jainism and Buddhism.*

I – Vedas and Upanishads
Sruti and Smrti – Divisions in Vedas – concept of Reality – Rta – Cosmic Order – Meaning of Upanishads – Principal Upanishads – The identity of Brahman and Atman – Upanisadic world views – Karma, Samsara and Moksha

II – Carvaka
Lokayata the only Shastra – Perception as the only Pramana – Rejection of non-material entities, Dharma and Moksha, Carvaka Ethics

III – Jainism
Tirthankaras; Jaina epistemology; Classification of knowledge into Aparoksa – Paroksa and Pramana – Naya – Syadvada – Jaina Metaphysics: Anekantavada – Categories: Jiva, Ajiva, Asti kaya Dravyas and Anasti Kaya dravya – Bondage and Liberation; mahavrata and anuvrata

IV –Buddhism
Four noble truths; Eight fold path; Pratityasamutpatavada: Nairatmyavada, Ksana bhanga vada – Sanghatavada – Hinayana and Mahayana distinction – Nirvana

V – Schools of Buddhism

Sarvastivada (Vaibhasika) and Sautrantika; Shunyavadains (Madhyamika) and Vijnanavada (Yoga Charas)

Ref:

1. "A Critical Survey of Indian Philosophy", Chandradhar Sharma, Motilal Banarsidass Publishers, 1994
2. "Introduction to Indian Philosophy", Datta & Chatterjee, University of Calcutta, 1984
3. "History of Philosophy: Eastern and Western", Vol – I, Dr. S. Radhakrishnan, Geroge Allen & Unwin Ltd., London, 1967

RPS 1434 **STUDY OF INDIAN SOCIETY** **4 hr / 4 cr**

Objective: *This course helps the students to comprehend the Indian Social reality by taking strides into the evolution of Indian Society. This course also introduces in detail the different concepts associated with Kinship, Marriage, Family , Caste, Religion and Village & Urban societies in the Indian context. A special effort has been made to make students aware of the diversities and underlying unity in our society.*

I – Indian Society through ages

1. Pre-historic society – Paleolithic, Neolithic, Iron age – Band society, hunting and gathering, Pastoralism, Agricultural and Settlement
2. Indus valley civilization
3. Vedic society
4. Society at the time of Islamic rule
5. Colonial Indian society
6. Society in Independent India

II – Family, Kinship and Marriage in India

Definition of Kinship and Kinship terminologies – Analysis of kinship in India within family and beyond family – Clan exogamy – Caste endogamy – Iravati Karve's comparative analysis of Four cultural zones – Definition of Marriage in India – Types of marriage – rules of Marriage – Hindu, Christian and Muslim marriage – Joint family in India, I.P. Desai's analysis of Structural and functional aspects of family – changes in family system.

III - Caste in India

Features of caste – Various definitions of caste; Hutton, G.S. Ghurye, Maine, Louis Dumont and Hocart - Varna and Jati – Caste as Social Stratification – Social, Economic & Cultural concepts related to Caste – Purity and Pollution, Dwaija, Pacca & Katcha, Jajman and Purjan, Satvika, Rajas and Tamas, Ashramas and Dharma, Mukhti and Moksa, Purusharthas, Panjamas, Dasas and Melachas – Caste model of Andre Beteille, Dummont's analysis of caste – Caste as an ideology – M.N. Srinivas's "Sanskritisation and Dominant caste".

IV – Village and Urban society in India

Rural & Urban Societies in ancient time till British rule, Characteristics and difference – Agrarian relations – Rural Jajmani system, Urban centres, Role of rural artisians, nexus between rural and urban societies in India.

V – Diversity of Religions in India
Diversity of religions – Beliefs and practices – Major religions in India – Classical and popular traditions of religions – Religious issues in the contemporary society – Religious Violence, Conflict, Terrorism, Fundamentalism.

Ref:
1. "Caste in Modern India", M. N. Srinivas, Media Promoters & Publishing Pvt. Ltd., 1989
2. "Nationalism and Colonialism in Modern India", Bipan Chandra, Orient Longman, 1979
3. "Kinship Organisation in India", Irawathi Karve, Munshiram Manoharlal Publishers, 1990
4. "Rural Sociology in India", A.R. Desai, Popular Prakashan, 1994.

RPS 1436 INTRODUCTION TO PSYCHOLOGY 5 hr / 4 cr

Objective: *This course is an introduction to the principles of behavioural science with consideration into a detail exposition of the major theories of personality.*

I – Disciplinary approaches to the study of Mind / Self
Nature and scope of Psychology – Relationship between Sociology and Social Psychology - Sociological conception of self and Psychological conceptualization of mind – The study of individual in social context – Nature - Nurture controversy

II – Biology of behaviour
Brain and Behaviour – Nervous system – Association cortex – Hemisphere's of brain and their functions

III – Theories of Personality
Hippocrates's Personality types theory – Introvert – Extrovert – Eysenek's Hierarchical theory – Allport's Trait theory - Freud's Psychoanalytic theory – Jung's Analytical theory – Skinner's behaviourist theory – Maslow's Self Actualization theory

IV – Psychological disorders
Traditional classification of disorders: Brain syndromes, Psychosis, Neurosis and Personality disorder – Schizophrenic disorders – Paranoid disorders – Anxiety disorders

V – Social Psychology and Emerging Patterns
Types of collective behavior: Crowd, Mob, Audience – Social significance of crowd behavior - Emergence of social networking – New forms of social mobilization and expressions – Psycho dynamics of social networking

Ref:
1. "Introduction to Psychology", Morgan Clifford T., Kind Richard A., Weiss, John R. & Schopler John, Tata McGraw Hill Edition, New Delhi, 1993
2. "Themes and Variations: Psychology", Weiten Wayne, Brooks Cole, California, 1989
3. "An Invitation to Psychology", Parameswaran E.B and Berna C., Neelkamal Publications, Hyderabad, 2006

RPS 1234 ELEMENTS OF PHILOSOPHY OF SCIENCE 3 hr / 2 cr

Objective: *An examination of science, its method, mode of confirmation, nature of scientific explanation and the types of reasoning that it is engaging in is the crux of this course. This course helps the students to get familiar with the mode of reasoning in science that do not provide conclusive reasons from their conclusions rather it gives us good reasons to believe its conclusions.*

I. Basis for scientific reasoning
Inductive and deductive reasoning – problem of induction and the responses – Karl Popper's 'refutations' as alternate to induction – Science as conjectures – Goodman's new problem of induction

II. Laws of Nature and Scientific method
Hume's conception of causal laws and accidents – John Herschel's theory of scientific method – context of discovery – Incorporation of laws into theories – laws as wide ranging generalizations – Patterns of scientific discovery

III. Confirmation and Probability
Notion of confirmation – Dealing with the paradox of the ravens and the tacking paradox – Interpretations of probability – subjective and objective probabilities – The propensity theory – Bayesian confirmation theory – The paradoxes resolved

IV. Scientific Explanation
Carl Hempel's covering law model – Questions on whether explanations fit the covering law model and vice versa – Probabilistic explanation – Causation and explanation

V. Demarcation of Science and Non-Science
Bridgman's operational criterion – Carnap on translatability into an empiricist language – Ayer on the deductibility of observation statements – Popper on Falsifiability as a criterion of empirical method

Ref:

1. " A Historical Introduction to the Philosophy of Science" - John Losee, OVP, London, 1972
2. "Philosophy 1 : A guide through the subject" - Edited by A.C. Grayling, OVP, 1998, New York
3. "Philosophy of Science", Arthur Danto and Sidney Morgan Besser, Meridian Books, 1960

RPS 1232 SOCIAL SKILLS 3 hr / 2 cr

Objective: *This course helps the students to develop himself as an individual with the requisite social skills needed for self expression and identification. Included in this course are the teaching and training components of social skills such as assertiveness, emotional intelligence and conflict management.*

I – Soft Skills
Introduction to Soft Skills – Types of soft skills – Need for soft skills – Soft Skills training methods – Social skills

II – Assertive Skills
Assertiveness – Elements of assertive behavior – Types of assertion – Importance of assertive skills

III – Emotional Intelligence
Understanding emotions – Emotion management – Emotional Intelligence & IQ – Four branches of Emotional Intelligence – EQ Tests

IV – Social Intelligence
Definition – Elements of Social Intelligence - Awareness of Self – Different types of personality – How to develop social intelligence

V – Conflict Management skills
Understanding Conflicts - Types of conflicts – Conflict stimulation & conflict resolution – Techniques for effective conflict management

Ref:
1. "Introduction to Psychology", Clifford T. Morgan, Richard A. King, John R. Weisz, John Schopler, Tata McGraw Hill Edition, New Delhi, 1993
2. "Interpersonal Skills Training", Philip Burnard, Viva Books Ltd., New Delhi, 1999
3. "Personality Development" Hurlock E.,B., Tata McGraw Hill Edition, New Delhi, 2006

RPS 2531 INTRODUCTION TO WORLD RELIGIONS – II 5 hr / 5 cr

Objective: *This course is a survey of the major religious traditions which have originated outside India and forms the content of this course. An exposition to History, Beliefs, Practices and Sects of these religious traditions receive primary attention in this course.*

I – Judaism
Concept of Yahweh – Ten commandments – Torah – Prophets – Worship – Rituals and Festivals in Judaism

II – Christianity
Brief life history of Jesus, Bible, Sermon on the Mount, Christian conception of God, Man, World, Sin and Salvation – Basic Christian values – Sects in Christianity

III – Islam
Meaning of Islam - Life history of prophet Mohammed – Hijra – Five pillars — Quran - Hadieth – Sects in Islam – Islamic worship and rituals

IV – Taoism

Lao Tzu's thought – Tao - the way – Tao as understanding of the functions of the world – Yang and Yin – conception of wise person – Virtuous activity – Philosophy of Chuang Tzu – His conception of World, Nature, and Man

V – Confucianism

Biography of Confucius – Practical way of learning – Love for humanity – Confucius Tao - the way heaven works – the principle of the Mean – Principles of Reciprocity – Confucius's conception of Sage or Superman

Ref:

1. "Modern Trends in World Religions", Kitagawa, J.M. Lasalle, Illinois, Open Court Publishing Co., 1967
2. " The call of the Minaret", Cragg K., Oxford University Press, 1956
3. "On World Religions", Anindita N. Balslev, SAGE Publications, 2014

RPS 2533 **CLASSICAL INDIAN PHILOSOPHY** **5 hr / 5 cr**

Objective: *This course aims at providing detailed exposition of the metaphysical and epistemological positions of the six systems on Indian Philosophy. Special care is taken to explicate the contesting claims to the conception of Reality, Truth, Knowledge and Error.*

I – Nyaya - Vaishesika

a) Logic and Epistemology of Nyaya, Prama, Paratah Pramanya, Nirvikalpaka Pratyaksa, Savikalpaka Pratyaksa, Laukika – Alaukika Pratyaksa, Samanyalaksana – Jnana Laksana – Yogaja, Anyathakhtiya – Svartha Anumana and Parartha Anumana – Upamana, Sabda
b) Metaphysical and Ontology of Vaishesika – Concept of Padartha, Dravya, Guna, Karma, Samanya, Vishesa, Samavaya Abhava – Asatkaryavada.

II – Samkhya - Yoga

Satkaryavada, Prakrti, Prakrtiparinamavada – The evolutes of Prakrti – Purusa – Spiritualistic pluralism and atheistic Samkhya – realism of Yoga as theist – Samkhya – Concept of Chitta and Chitta Vrittis - Astanga Yoga

III – Purva Mimamsa

Svatahpramanyavada, Prabhakara and Kumarila Schools, Prabhakara's Akhyati and Kumarila's Viparitakhyati, Metaphysics of Mimamsa - the importance of Sabda – Pramanas - The conception of categories – Triputi pratyhaksavada and Jnatatavada - Dharma

IV – Advaita

Brahman – Maya – Ishvara – Jiva, Atman – vivartavada – Jivanmukti and videhamukti

V – Visistadvaita and Dvaita

Reality of achit – chit and Ishvara – Saguna Brahman - Panchabeda

Ref:

1. "A Critical Survey of Indian Philosophy", Chandradhar Sharma, Motilal Banarsidass Publishers, 1994
2. "Introduction to Indian Philosophy", Datta & Chatterjee, University of Calcutta, 1984
3. "History of Philosophy: Eastern and Western", Vol – I, Dr. S. Radhakrishnan, George Allen & Unwin Ltd., London, 1967

RPS 2433 **LOGIC** **4 hr / 4 cr**

Objective: *This course is a study of the methods of formal rational procedures such as syllogistic and propositional logic. The objective of the course is to train the students in the techniques of effective reasoning and drawing valid inferences through different testing procedures of arguments found both in the traditional and in symbolic logic*

I – Nature and scope of Logic
Formal character, Truth and Validity, Types of reasoning, Laws of thought, Condition for good reasoning, Logic expressed in arguments, uses of logic – Basic terms used in Logic

II – Categorical Statements and Categorical Syllogism
Four standard forms of categorical statements, use of Venn diagram to represent the categorical statements, Distribution of terms, Square of opposition to draw immediate inference, Mediate inference through categorical syllogism – Methods of finding validity – Rules and fallacies and Aristotle's method of finding validity through mood and figure

III – Symbolic Logic
Classification of proposition: Conjunction, Disjunction, Material implication, material equivalence and Negation – Truth functions and Truth values, variables and constants – Symbolization of proposition, Combination of arguments and use of brackets

IV – Propositional Calculus and Methods of Testing the Validity of Arguments
Tautologies, Contradiction and contingent sentences – simple truth table, direct and indirect truth table methods

V – Deductive methods in propositional calculus to prove the validity of arguments
Application of rules of inference and rules of equivalence in Direct proof, Indirect proof and conditional proof

Ref:

1. "An Introduction to Symbolic Logic", Susanne K. Langer, Dover Publications, Inc., New York, 1953
2. "Logic and Rational Thought", Frank R. Harrison, III West Publishing Company, 1992
3. "Basic Logic", Raymond J. McCall, Barnes & Noble, Inc., New York, 1947

RPS 2535 **UNDERSTANDING SOCIAL STRUCTURE** **5 hr / 5 cr**

Objective: *This course is designed to understand the fundamental social relations which give a society its basic form and which set limits to the courses of action. This course is specially intended to fine tune the meaning of the concept of Social Structure by delineating with the concepts such as, 'order', 'system' and 'organizations'. By orienting the students to study social structure as an empirical reality existing at a single moment of time, they are prepared to look out for changes in structure through different theoretical perspectives.*

I – Social order

Definition of Social order: Hobbes', Spencer's, Durkheim's and Parson's – Conceptualizing social system, Social structure and social organization with reference to the concept of Social order – Elements of social structure – Dynamic aspect of Social structure – social structure and social change.

II – Theoretical Basis for study of Social structure

Organismic model of Spencer, Functional approach of Durkheim and Radcliffe Brown in Preservation and Change in Social structure – Malinowski's analysis of individual needs in structure –Pareto's conception of maintenance of balance and imbalance, Merton's correlation of structure with norms and Marx's conflict approach.

III – Aspects of Social Structure

Basis of structure – Role and status – Human needs, Aspects of social structure – Community, Group, Association, Organisation; Value orientation in structure – Social practices, Folkways, Norms, Patterns, Values and symbols – Structure and function – Merton's codification

IV – Elements of Social Structure

Kinship system – social stratification – Power structure – Caste and Class – Social institutions – Social Process

V – Social structure and Social change

Concept of Social Change – Social Mobility – Structural functions - Structural Theories of social change – Positivists, Marxist and Weberian, Agents of social change, Modes of Social change – Education, Judiciary, Legislative, Constitutional, Science and Technology and voluntary social action.

Ref:

1. "The Theory of Social Structure", S.F. Nadel, Routledge Library Edition, Reprint 2009
2. "The concept of Social Structure", Douglas V. Porpora, Greenwood Press, 1987
3. "Social Structure", John Levi Martin, Princeton University Press, 2009

RPS 2436 **PHILOSOPHY OF RELIGION** **5 hr / 4 cr**

Objective: *Philosophical reflections about the concept of God, Attributes and Existence of God, Conception of Evil and the concept of religious experience form the core of this course. This course helps the students to reflect on the concept of God beyond the purview of a specific faith orientation.*

I. Concept of God and different types of religions
Notion of God: Attributes, Relation to man and the world (Indian and Western) – Classification of Religions - Logical questions on the attributes of god – Omniscience and Human freedom – Nelson Pike Verses Alvin Platinga – Omnipotence and logical consistency – George I. Mavrodes, Nelson Pike and Peter Geach.

II. Proofs for the existence of God
Thomas Aquinas – The five ways, Paul Edwards's Critique of Cosmological argument, William Paley's Teleological argument, St. Anslem's Ontological argument – Pragmatic justification of religious belief – Pascal's Wager and the will to believe of William James

III. Religious Experience
Types – Mystical, Prophetic, Shaman and Schleiermacher's "Absolute dependency" – William James's Characterization: Ineffability, Noetic quality, Transiency and Passivity – Justification of religious experience: James's Open question and Swinburne's Principle of Credulity

IV – The Problem of Evil
The logical problem – incompatibility between God's attributes and the fact of evil – Solutions – John Hick's soul-making theodicy and Alvin Platinga's Free will defence – J.L. Mackie's Criticism

V. Religious Pluralism
The problem of Absolute Truth – Hick's Religious Pluralism and ultimate reality, Alvin Platinga's Defence of religious exclusivism and Paul Tillich's Faith as ultimate concern

Ref:

1. Philosophy of Religion – John Hick, IV Edition, PHI, 1991
2. Philosophy of Religion – Louis P. Pojman, II Edition, Wadsworth Publishing Co, 1994
3. Philosophy, The power of ideas – Brooke N. Moore and Kenneth Bruder, VI - Edition, Tata McGraw Hill, 2005
4. "Philosophy 2: A guide through the subject", Edited by A.C. Grayling, OUP, 1998

RPS 2432 **SAIVA SIDDHANTA** **4 hr / 4 cr**

Objective: *This course is an introduction to beliefs, worships patterns and rituals in the Saiva Siddhanta sect of Hinduism. Primary attention will be given to the exposition of God, soul, Bondage and Liberation as articulated in different Saiva literature.*

I – Divisions of Saivism

Divisions on the basis of the belief in god, worship patterns and rituals – Six subdivisions

1. Pure Saivism (□□□□□ □□□□□)
2. Pasupatham (□□□□□□□□)
3. Maviratham (□□□□□□□□)
4. Kalamugam (□□□□□□□□□ □□□□□□ □□□□□□□□)
5. Vamam (□□□□□)
6. Vairavam (□□□□□□)

II – Saiva Literatures

Devaram – Periapuranam – Devotional books – Panniru Thirumurai with specific references to Thirumanthiram, Meikanda Devar's Sivajnanabotham

III – Conception of Pati, Pasu and Pasam

Pati – Transcendence, Creation, Grace
Pasu – Plurality of souls, Soul and God and 36 Tattuvams
Pasam – Trio bondage – Aanavam – Kanmam and Mayai, Karma Samsara

IV – Liberation in Saiva Siddhanta

Four different avenues to get divine grace – Sariyai, Kiriyai, Yogam & Jnanam – Destinations – Saalogam, Saamebam, Saarupam and Saayuchchiam – Concept of dhiksas – Nature of Sivan mukthar and Sivanandiyars – Concept of Gurus.

V – Brief exposition to Sivajnana Potham

Meikandar's logic – 36 divisions of saiva siddhanta theology and Twelve sutras – Six general chapters and Six chapters on truth – Select textual readings.

Ref:

1. "Speicial Lectures on Saiva Siddhanta", K.M. Balasubramanian, The Annamalai University, 1959
2. "Saiva Siddhanta Philosophy", John Piet
3. "□□□□□□□□□□□□ □□□□□□□□ □□□□□□□□□", □□□□□□□ S. □□□□□□□□□

RPS 2532 **ETHICS** **5 hr / 5 cr**

Objective: *This course is a study of the nature and scope of different ethical theories and their defining modes of goodness, rightness or moral values. Special attention is given to the exploration of enduring moral concerns, such as moral relativism, the place of reason in ethics, egoism, altruism and the nature of moral responsibility. Finally, this course helps the students to take stands on ethical issues in governance and in public life.*

I – Introduction

Nature and scope of Ethics, Concept of Value, Right and Good, Duty, Virtue, Free will, Determinism, Rights and obligations and Evil – Classification of Ethical Theories - Normative and meta-ethical distinction – Teleological – De ontological distinction – Cognitivist and Non-cognitivist distinction – Ethical subjectivism – Objectivism and Relativism

II – Types of Teleological and Deontological Theories

a. Teleological Theories: Importance for ends or good and moral value – Moral obligation seen as Value, Right as good – Greek Eudemonism, Egoistic hedonism of Epicurus, Hedonistic Utilitarianism of Bentham and Mill, Instrumentalism of Dewey
b. Deontological Theories: Deontology and Importance for moral obligation, duty – Oughtness, rightness, categorical imperative, Self evident nature of right, right known through reason, Intuition, Act and Rule Deontology - Butler's moral conscience theories – Ross's deontological intuitionism and Kant's formalism

III – Freedom and Responsibility

Determinism, Fatalism, hard and Soft determinism, Libertarianism and Action theory

IV – Ethics in Public Administration

Ethics in Private and Public relationships; Ethics in Public Administration: Status and Problems, Ethical dilemmas in government and private institutions; Laws, Rules, Regulations and conscience as sources of ethical guidance, accountability and ethical governance, Strengthening of ethical and moral values in governance, ethical issues in international relations and funding, corporate governance

V – Ethics and Taking stands on contemporary issues

Arguments for and against Homosexuality, Abortion, Euthanasia, Capital punishment and Animal rights

Ref:

1. "Taking Sides: Clashing Views on Controversial Moral Issues", Stephen Satris, The Dushkin Publishing Group Inc., 1994
2. "Applying Ethics", Jeffrey Olen & Vincent Barry, Wadsworth Publishing Company, 1999
3. "Ethics and the limits of Philosophy", Fontana Press, Collins, 1985
4. "An Introduction to Philosophical Analysis", John Hospers, Prentice Hall Inc., 1997

RPS 2534 **SOCIAL STRUCTURE IN INDIA** **5 hr / 5 cr**

Objective: *This course aims at creating a critical understanding of the social structural, functional and process oriented aspects of the agrarian, caste, tribal, kinship, economic, political aspects of Indian society. This course helps the students to get a firm grip with the criteria used in the structural analysis of Indian Society in relation with the analysis of social change in India.*

I – Rural and Agrarian Social Structure in India

Village as a Sociological reality – Village studies – Community character – Village community in ancient, medieval & Modern India – Political autonomy – Economic self sufficiency – Village and peasantry – Agrarian social structure – Land tenure system & Land reforms – Changes in the agrarian character of the village – Implications of rural development

II – Caste system in India

Perspectives on the study of caste system: G.S. Ghurye, M.N. Srinivas, Louis Dumont and Andre Beteille – Defining criteria of caste - Social Exclusion & Inclusive policies of India, Caste as a Discriminatory system – Correlation between traditional economic system and caste – Un-touchability – Various forms of rituals relating to pollution structure – State and non state initiatives addressing caste discrimination – Caste violence – Changes in caste relations

III – Tribal communities in India

Sociological definition of tribes – Definitional problems in Indian context – Geographical spread and demographic structure of various tribes in India – Problems of the tribal people – Colonial and post colonial policies – Adivasi struggle – Tribal social movements - Issues related to integration of the tribals – Tribal development and tribal identity

IV – Kinship system in India

Lineage and Descent in India - Types of Kinship system – Internal structure of the family and its relationship with other structures i.e Economic, Political & Cultural – changing character of India family – Industrialization and Urbanization – Patriarchy – Gender inequality and its entitlements

V – Economic and Political System

Agrarian class structure – Industrial class structure – Operation of market – Caste based trade, traditional business communities – Colonialism and economic opportunities for new merchant communities – Debate on liberalization and globalization – Nature of Indian Polity, Social factors affecting democratic participation

Ref:

1. "Social Inequality in India", K.L. Sharma (Editor), Rawat Publications, Jaipur, India, 1999
2. "Marriage and Family in India", Kapadia, K.M, Oxford University Press, Bombay,1959
3. "Kinship Organisation in India", Irawathi Karve, Munshiram Manoharlal Publishers, 1990
4. "Rural Sociology in India", A.R. Desai, Popular Prakashan, 1994.
5. "Modernization of Indian Tradition", Yogendra Singh, Rawat Publications, 1986

RPS 2536 METHODOLOGY IN SOCIOLOGY 5 hr / 5 cr

Objective: *The aim of this course is to learn in detail the research methodology that is applied in field experience in Sociology. On learning the research methodology the student is to engage himself in an individual study project involving research of a topic and the preparation of a project report in consultation with the faculty advisor.*

I – Definition, Nature and Scope of Social Research

Issues related to "Scientific study" – Discovering & verifying facts – Causal explanation appropriate theoretical frame of reference – Measurement and analysis of relationship in a value – Free framework as the thrust of quantitative research – Focus on structures, systems and order – Emphasis on process and meanings that are not 'measured' as the thrust of

qualitative research – Focus on social construction of meaning and value bound inquiry – Review of literature

II – Research design
Descriptive, Explanatory and Experimental research designs

III – Sampling in Quantitative study and strategies of Inquiry in Qualitative study
Quantitative study – Definition of sampling universe – Types of sampling – Probability and Non probability sampling – Advantages and disadvantages. Qualitative study - Forming paradigms, perspectives, metaphor and meaning as the base for research design – The case study, ethnography, phenomenology, interpretative practice and the biographical method as qualitative research strategy

IV – Techniques of data collection
Quantitative Research: Observation – Realistic observation – Types – Questionnaire – construction of questionnaire – interview – objectives and types – roles of an interviewer – stages of an interview
Qualitative Research: Conversational interview – Art of asking and listening – Observational methods – Naturalistic observation as tool to get into social situation – Written texts and cultural artifacts as mute evidence – Visual methods – Personal experience methods – Narrative, content and semiotic analysis

V – Research Report
Quantitative Research: The criteria: Mapping the reality – Representing the reality, Modes of presentation: Internal and External validity, Reliability and Objectivity – Result analysis – Inference – preparing a research report – computers in social research. / Criteria for evaluating and presenting Qualitative research: Trustworthiness and Authenticity, focus on subjectivity, Emotionality, Feeling and Value – Positioned criteria – Politics of interpretation – Writing as inquiry – Reflective and reflexive ethnography

Mode of Evaluation (Internal & External): *No end of semester examination. Project report will be evaluated with external board members in a Viva Voce for 100 marks. For internal continuous evaluation, each student will be asked to submit proposal for the research with a hypothesis for the 1st internal continuous assessment for a maximum of 50 marks and a presentation of a seminar on the chosen topic for the 2nd internal assessment for the maximum of 50 marks.*

Ref:

1. "Scientific Methods of Social Research", Gosh, B.N., Sterling Publishers, New York, 1983
2. "Handbook of Qualitative Research", Edited by Norman K. Denzin & Yvonna S. Lincoln, SAGE Publications, 1994
3. "Multi Method Research: A synthesis of Styles", Brewer J. & Hunker A., Newbury Park, CA: SAGE

RPS 2510 **SOCIAL AND POLITICAL PHILOSOPHY** **5 hr / 4 cr**

Objective: *The objective of the course is to assist the student in thinking clearly and logically about Philosophical concepts on social and political issues and the corresponding concepts like community, state, nation and the world. Included in this course is a survey of topic specific reflections on major social and political thinkers of the west.*

I – Equality, Justice and Liberty
Natural and Social inequalities – Social, political and economic equality – Socialism and liberalism as opposing avenues to attain equality – Definition of Justice – Recognition of special needs – Socratic, Platonic, Aristotelian and John Rawl's conception of justice – conception of Liberty in Thomas Hobbe's, Montesquieu's and J.S. Mill's thought

II – Conception of State and Sovereignty
Territory, Population, Sovereignty and government as components of state – Questions on the absolute power of state – Locke's doctrine of consent, Rousseau's "Popular Sovereignty", Austin's determinate and legal sovereign and Harold J. Laski's "Attack on Sovereignty"

III – Forms of government
Classification of state and government – Capitalist – Socialist – Democratic – Authoritarian; Unitary – Federal; Parliamentary – Presidential – Meaning of Monarchy, Theocracy and Democracy

IV – Individualism and Socialism
Growth of individualism; its justification; Mill on individualism, criticism of individualism; Anarchism; growth and justification of Socialism

V – Secularism
Concept of Secular state – Western model of Secularism – Indian model of Secularism – Criticisms of Indian secularism – Secularism and vote bank politics in India.

Ref:

1. "Social Philosophy: Past and Future", Daya Krishna, Indian Institute of Advanced study, 1999
2. "History of European Political Philosophy", D. R. Bhandari, Bangalore Press, Bangalore
3. "Problems of Political Philosophy", Raphael D.D., Macmillan, NY, 1970

RPS 3631 **CULTS AND DOCTRINES OF HINDUISM** **6 hr / 6 cr**

Objective: *This course gives an exposure to Hinduism from a historic perspective. A special focus is given on changing patterns of cults in Hindu religion. The expected outcome of learning this course is the student's ability to appreciate the adoptive, tolerant and inclusive nature of Hindu religion*

I – The Religion of the Vedas
Objects of worship – Devas – Prthvi – Aditi – Usas – Indra – Surya – Varuna and Rudra – Types and purposes of Sacrifice – Development of doctrines – Transmigration – Karma – Shakthism, Thantrism and Thirst for knowledge – Naturalistic and atheistic cosmogonic theories

II – Development of Cults, Puranas and Idhigasas
The cult of Vasudeva and its identification with Hindu God Vishnu – The fertility cult and its identification with Siva – Sruatu Sutras – Grhya sutras and Dharma sutras and dharma Sastras – Smrti and Sruti – Manu – Smrti – Vayu, Visnu, Agni, Bhavisya and Bhagavata Puranas – The epics Mahabharata and Ramayana

III- Selected Textual readings in Bagavad Gita
Origin of epic Mahabharata in general and Bagavad Gita in particular – Brief introduction about the chief characters of Mahabharata – Narrative style of Mahabharata – The doctrine of Bhakti – duties – Niskama Karma – Concept of stable mindedness (Stithaprajnya) - Pantheistic and Philosophical monistic doctrines in Gita – Study of Chapters I, III, IX, XII, XVIII in Bagavad Gita

IV – Bhakti Cult in Hinduism

a. Hindu Islamic syncretism – Vernacular expressions of Bhakti cult – Assertion from one's own political, economic, caste and cultural lines – North Indian Bhaktii cults: Namdev and Varkari movement – Eknath – Tukaram – Visvambhar Misra – Ramananda, Kabir, Ravidas & Tulsidas
b. South Indian Bhakti Cult: Alwars and Nayanmars

V – Hinduism in the Modern Era
Hindu reform movements – Modern days Gurus – Krishnamurthi, Rajneesh, Ram Dev, Satguru Jaggi Vasudev – Saibhaba of Shirdi and Saibhaba of Puttaparthi, Amritanandamayi

Ref:

1. "A source book of Modern Hinduism", Glyn Richards Curzan Press, 1985
2. "Alvars of South India", K.C. Varadhachari
3. "Hinduism Through the Ages", D.S. Sharma, Bharatiya Vidhya Bhavan, Bombay, 1973

RPS 3533 HISTORY OF WESTERN PHILOSOPHY – I 5 hr / 5 cr

Objective: *This course is a study of western philosophy from its beginning in the Greek world through the middle ages till the 18th century empiricists of the modern age. The objective of the course is to give exposition to the enduring metaphysical and epistemological issues in the writings of the leading philosophers.*

I – Pre-Socratic Philosophy
Milesians & eliatic schools, Heraclitus, Parmenides and the Sophists

II – Socrates, Plato and Aristotle
Socratic method – Socratic conception of Virtue and Knowledge – Plato's conception of appearance and reality – Plato's idealism – Aristotle's criticism of Plato – Theory of form and matter, Theory of Causation and Actuality and Potentiality

III – Medieval Thought
St. Augustine's conception of Soul, World and Sin – Human nature – The two cities – St. Aquinas's cosmological proofs and St. Anselm's ontological proof for God's existence

IV – Rationalism
Cartesian method – dualism – Descartes' Interactionism – Certain Knowledge – Spinoza's conception of substance – Attributes of god, Monodology of Leibniz – Doctrine of pre-established harmony – Determinism and freedom

V – Empiricism
Locke's theory of origin and development of knowledge, Theory of representative realism – Berkeley's Subjective idealism – Hume's impressionism – Association and belief – Hume on causation – Hume's skepticism.

Ref:

1. "Philosophy 1: A guide through the subject", Edited by A.C. Grayling, OUP, 1998
2. "History of Eastern and Western Philosophy", Vol. II, Dr. S. Radhakrishnan, George Allen & Unwin Ltd., London, 1967
3. "Philosophy: History and Problems", Stumpf S.F., McGraw Hill, New Delhi, 1995
4. "The Great Conversation: A historical introduction to Philosophy", Norman Melchert, Mayfield Publishing Company, 1991

RPS 3635 SOCIOLOGICAL THEORIES – I 6 hr / 6 cr

Objective: *This course is an examination and analysis of the development of the major classical and contemporary theoretical paradigms in sociology as espoused in the writings of Comte, Durkheim, Weber, and Parsons. Special attention is given to the specific methodological orientations of these sociologists to study society which will help the student to apply these perspectives and concepts in their higher studies and research.*

I – Evolutionary Theories
Comte's Positivism – Social Statics & Dynamics – Three stages of thought, society and values – Spencer's organismic model – Social evolutionism.

II – Sociological Realism of Durkheim
Subject matter of Sociology – Science of Social Reality – Origin of Social fact – Durkheim's implicit functionalism – Suicide as a social fact – types of suicide – Durkheim's method – Positivism, Objectivity, Quantitativism, Empirical facts and Scientific laws – Causal and Functional analysis – Durkheim's approach to study of religion and division of labour.

III – Max Weber's Science of Interpretation
Conception of science, Cultural science and methodology – Incompleteness of cultural science – History and sociology as consequences of rationalization – Social action as the basis for sociological analysis – Ideal type as theoretical constructs and its relation to Verstehen – Social action as the basic unit – Meaning of social action – Types of social action – Bureaucracy – Relation between religious belief and economic structures

IV – Karl Marx's Materialistic Approach
Historical materialism as the basis for conceptualizing social reality, Dialectical materialism as the logic of social change – Economic determinism, Forces and modes of production, Production relations, Critique of capitalism, Theory of surplus value, Theory of alienation and theory of class and class struggle

V – Talcolt Parsons's System Theory
Analytical realism of Parsons – Classification and categorization of theory - Norms of voluntaristic action – social system – Pattern variables - Modes of orientation – Preservation and management of tension

Ref:

1. "Sociological Theory", Bert N. Adams, R.A. Sydie, Vistaar Publications, New Delhi, 2001
2. "The Structure of Sociological Theory", Jonathan H. Turner, Thomson Wadsworth, 2003
3. "Sociological Thought", Francis Abraham, John Hendry Morgan, Macmillan India Ltd., 1985 (1996)

RPS 3637 **MODERN INDIAN PHILOSOPHY** **6 hr / 6 cr**

Objective: *This course is a philosophical analysis of major Indian thinkers of 19th and 20th century representing the Vedantic, Humanistic and spiritualistic traditions. This course is intended to get reflections on the response of Indian thinkers encountering the west.*

I – Introduction
Characteristic features of modern Indian thought – Link with the past – Monotheism – Linear view of history – Interest in secular and social life – Reform movements – Brahma Samaj – Arya Samaj – Theosophical Society

II – Swami Vivekananda
Practical Vedanata – Universal religion – Ramakrishna mission – Karma Marga

III – Shri Aurobindo
Concept of Divine – Involution and Evolution – Mind and Super mind – Integral Yoga – Society of Gnostic beings.

IV – Sir Mohammad Igbal
Conception of Self, God, Man, Nature of Intuition, conception of World, Space & Time and importance of Prayer

V – Humanistic Trends in Modern Indian Thought
Tagore's Religious Humanism, M.N. Roy's Radical Humanism – Sarvodaya of M.K. Gandhi – B.R. Ambhedkar - Conception of the Mind, Man, Intellect, Education & Religion

Ref:

1. "Contemporary Indian Philosophy", Lal, B.K., Motilal Banaridas, Madras, 1995
2. "Contemporary Indian Philosophy", Mahadeven T.M.P & Saroja G.V., Bhardiya Vidhya Bhavan Publishing Co., Madras, 1980
3. "Modern Indian Thought", Naravene V.S., Asia Publishing House, New Delhi, 2008

RPS 3231 INTRODUCTION TO CRITICAL THINKING 3 hr / 2 cr

Objectives: *It is an introductory course to think critically about the world in which one lives in. This course employs the logical principles in a practical way to help students improve their ability to reason well about problems they encounter in everyday life.*

I – The background for critical thinking
Arguments as the basis for critical thinking – Reasoning and Arguments – The question of truth and validity of arguments – Good and bad reasoning – Inductive and Deductive reasoning

II – Fallacious Reasoning
Appeal to authority, inconsistency, straw man, "either or fallacy", begging the question, ad hominem argument, equivocation, slippery slope, hasty conclusion, small sample and questionable analogy

III – Psychological impediments to good reasoning
Loyalty, Provincialism, Herd instinct, Prejudice, Stereotypes, Superstitious beliefs, Wishful thinking, Rationalization, Denial and Procrastination

IV – Nature and types of arguments
Definition – Levels of argument – Manifest and Implied argument by the image – the argument process

V – Critical thinking and writing an assignment
Writing process – Planning – Reasons and evidences in support of thesis – Importance of arranging thoughts – Providing concrete evidence

Ref:

1. "Logic and Contemporary Rhetoric: The use of reason in Everyday life" by Howard Kahene and Nancy Cavender
2. "Logic and Critical Thinking", Merrilee H. Salmon, HBJ Publishers, 1989
3. "An Introduction to Logic and Scientific Method', Morris R. Cohen, Allied Publications Pvt. Ltd., 1984

RPS 3632 **INTRODUCTION TO CHRISTIANITY** **6 hr / 6 cr**

Objective: *This course seeks to broaden student's understanding of Christian religion through historical investigation, textual criticism, ethical analysis and cultural interpretation. Particular attention is given to those texts that inform the theology and social practices along with an introduction to Christian missions in a cross cultural contexts.*

I. Elements of Christian Theology
Christian understandings of God – Christ, the Holy Spirit, Humanity, Creation and Redemption – Christian belief as expressed in the theology of Calvinist, Weslyan, Catholic, Pentecostal, Anabaptist and Pietist movements

II. History of Christianity
History of Christian ideas, institutions and ethical practices in the Roman and Persian empires, in Islamic lands, and in Medieval Europe up to 1500 – Reformation – Expansion with colonization – Missionary movements – Christianity in Africa, Asia and Latin America

III. Glimpses into the Books of the Bible
Introduction to content and themes of the Old Testament – with emphasis on sequence and meaning of events – Pentateuch, Prophets and writings – Survey of historical and cultural background of New Testament – Gospels, Acts, Letters and Apocalypse

IV. The Nature and Mission of the Church
Biblical and theological analysis of Church's nature and mission – Christian mission and the relationship of Christianity to the religions of the world – the Gospel mandate in cross cultural contexts – Meaning of witness and service – the Theology of worship

V. Christianity in India
St. Thomas in India – Influence of eastern orthodox churches in India – Malabar – Orthodox churches – Jacobite – Roman Catholic and Protestant Missions in India – Marthomaites and Syrian Christians – Ecumenism – CSI and CNI

Ref:

1. "Outline of Christian Doctrine", Marcus Ward, Vol. I & II,
2. "Principles of Christian Theology", John Macquarrie
3. "Jerusalem to New Delhi", Gibbs

RPS 3534 **HISTORY OF WESTERN PHILOSOPHY – II** **5 hr / 5 cr**

Objective: *This sequential course is a study of modern western philosophy since the time of Immanuel Kant. This course aims at imparting knowledge on the extremes of abstract metaphysical system building of Kant and Hegel and the abandoning of metaphysics effected through the linguistic turn approach and continued with pragmatic and existential traditions.*

I – Immanuel Kant
Immanuel Kant's transcendental idealism – Phenomena and Noumena - Copernican Revolution in Philosophy – Synthetic apriori judgments – Categories of mind – Reconciliation between rationalism and empiricism

II – Hegel
Objective idealism of Hegel, Dialectical method, Epistemology internalized, Self and others – Absolute mind –Reason and cognition

III – Moore, Russell and Wittgenstein – Early and Later
Defence of commonsense, Refutation of idealism; Logical Atomism; Logical constructions, Picture theory of meaning, Thought and language – Logical truth, Saying and Showing - Meaning and use; Ostensive definitions, Language games, Critique of private language - Logical Positivism - Verification Theory of meaning, Rejection of metaphysics; Linguistic theory of Necessary propositions

IV – Pragmatism
The pragmatic approach to Philosophy – metaphysical problems as problems of meaning – Pierce's method of fixing belief - Methods of Tenacity, Authority, and Natural Preferences – Peirce's conception of Truth and Reality, Theory of Meaning, John Dewey's Instrumentalism, Naturalized Epistemology and Naturalized Value

V - Existentialism
The existentialist approach to Philosophy _ Opposition to traditional philosophy and all forms of collectivism and scientism – Kierkegaard on Individual existence – The spheres of the Esthetic, the spheres of the Ethical and spheres of the Religions – John Paul Sartre's Metaphysics – Being in itself, Being for itself and Nothingness – Sartre's philosophy of the world – Contingence – Surplus – Nausea – Absurdity – The refusal of freedom – Doomed human relationship – Sartre's philosophy of Man – Man is condemned to be free

Ref:

1. "Philosophy 2: A guide through the subject", Edited by A.C. Grayling, OUP, 1998
2. "Philosophy: History and Problems", Stumpf, McGraw Hill, New Delhi, 1995
3. "The Great Conversation: A historical introduction to Philosophy", Norman Melchert, Mayfield Publishing Company, 1991

RPS 3636 SOCIOLOGICAL THEORIES – II 6 hr / 6 cr

Objective: *This sequential course to Sociological Theories – I is the study of major theorists and the theories that brought transition in sociological theorizing on the grounds of extensive reviewing of earlier theories. The significance of this course is, giving exposures to students in the alternate avenues to study society along with the underlying philosophical positions.*

I – Robert K. Merton's structure – Functional Analysis
Codification of functionalism – system with parts and whole – Functional pre requisites – Functional universals – Functional indispensability – Idea of integration - Manifest and Latent function – Dysfunction – Conformity and deviance

II – Conflict Approach
Ralf Dahrendorf's criticism of functional theory – Utopian Tranquility – Dialectical conflict perspective – "Imperatively Coordinated Associations" (ICA) as a social unit of analysis – Legitimated power relations – Conflict between basic types of resolution – Redistribution of authority in ICA – Conflict functionalism of Lewis A. Coser – Positive functions of conflict – Alternate organismic analogy – Coser's propositional inventory on Causes, Violence, Duration and functions of conflict

III – Mead's Symbolic Interactionism
Society as the total sum of interaction of its members – Man and his symbol using behavior, Theoretical assumption on Symbols, Meaning, Expectations, Behaviour, Roles and Interaction – Self and Identity.

IV – Phenomenological Approach
Subject matter of Sociology – Consciousness – interpretative approach to social reality – Understanding the social action from the point of view of actor – inter subjective consciousness as the foundation of social life – Society as a subjective and objective reality – Rejection of positivism – Theory of social construction of reality of Peter Berger and Thomas Luckman

V – Critical Theory Approach
Context – Frankfurt school – Need to retain Marx's agenda of emancipation – Habermas's analysis of social action – Critique of science – Types of Knowledge, Interest and Functional needs – Legitimation crisis in society – Public sphere – Analysis of speech and interaction – Dialogue – Constitutive universals – Social Linguistic structure of society – Ideal speech situation – Communicative action

Reference:

1. "Social Theory and Social Strcuture", Merton, Robert K., Amerind Publishing Company Pvt. Ltd., New Delhi, 1968
2. "The Emergence of Sociological Theory", Turner, Jonathan H. Leonard Beeghley, Charles H. Power, 5th Edition, Wadsworth, USA, 2002
3. "The Structure of Sociological Theory", Jonathan H. Turner, Thomson Wadsworth, 2003

RPS 3638 INTRODUCTION TO ISLAM 6 hr / 6 cr

Objective: *This course aims at imparting the students the founding, historical development and the present situation of Islamic religion with special attention to its beliefs and doctrines. This course helps to draw a comparison on the description of personalities common in Islam and Christianity on the basis of specific reference to Quranic verses that talk about these personalities.*

I. Beliefs and doctrines of Islam
Belief in Allah, the God, Angels, Prophets, the book, the last day, Resurrection and the predestination of Good and Evil – the foundations – Quran, Hadith, Ijma and Quiyas – The Five pillars – Faith, Prayer, Fast, Arms giving and Pilgrimage – Muslim high days

II. History of Islam

Arabia before Islam – Life history of prophet Mohammed – Hijira – Caliphates – Abu Baker, Umar, Uthman and Ali – Abbasid and Islamic golden age – the crusades – The Mamluks and the ottoman empire

III. Glimpses into Quran

The style of Quran, Date and authorship, The role of scripture in the Muslims life, A brief exposition to the following Suras:

Al Fatiha (1st):	The fundamental principles of Quran
Al Bagara (2nd):	Focus on the necessity of God – Consciousness, Legal ordinances, Warfare, and property rights
Al Imran (3rd):	Focus on Nature of Jesus, The oneness of God
Al Nisa (4th):	Focus on obligations of Men and women, rights of women, peace and war, relations of believers with unbelievers
Yunus (10th):	The revelation of Quran to Muhammad
Ibraheem (14th):	Focus on how God is destained to lead Man from darkness to Light
Al – Kahf (18th):	A series of parables on the theme of faith in God versus excessive attachment to the life of this world
Maryam (19th):	The story of Zachariah, John, Mary and Jesus
Al-Itujurat (49th):	Focus on Social ethics
Al-Jumuaa (62nd):	Focus on congregational prayer on Friday
Al-Talaq:	Focus on Divorce, Waiting period and remarriage

IV. Islam in India

Early period – Arab Indian interactions – Mopla Muslims in Kerala – Delhi sultanate – the Mughals – Islam immediately before Indian independence and post independence era

V. Sects in Islam

Sunni – Shia – Dawoodi Bohra – Sufis – Ahmadiyya and Quranists

Ref:

1. "Modern Trends in Islam", HAR Gibb, Chicago University Press, 1947
2. "Introduction to Islam", Henry Martyn Institute of Islamic Studies
3. "Thinking about Islam", John B. Taylor

RPS 3232 SKILLS FOR CAREER DEVELOPMENT 3 hr / 2 cr

Objective: *This course elicits the importance of learning skills for career development. Also this course aims at training the students with the set of skills needed to shape their personality.*

I – Skills required for Career Development

Introduction to skills for career development - Need for career development skills – Learning skills, Communication & Assertive skills, Time management & Team management skills – Preparation for career development

II – Learning Skills
Understanding & Conceptualization – Reflective thinking – Logical consistency – Setting up arguments – Reading and writing skills – Self learning – Methods of reading books & Notes Taking

III – Communication & Assertive skills
What is communication – Goals and Elements of communication – Types of communication – Barriers of communication – Assertive behavior – Types of assertive behavior – Assertiveness in cultures – Assertive rights

IV – Identifying Career
Resume writing – Understanding HR agencies and portals – Interview skills – Mock Interview – Negotiation – Contracts – Employee rights

V – Time Management & Team management skills
Understanding time management – Reasons for poor time management - Saboteur Time Styles - The 'Five Time Zone' Concept – Elements of effective time management – Essential skills for team management – Understanding the Team & Task - Deliverables

Ref:
1. "Voyages of the Heart: Living on emotionally Creative Life", Averill J. and Nunley E., Free Press, 1992
2. "Creative Leadership: Skills that Drive Change", Gerard J. Puccio, Mary C. Murdock, Marie Mance, SAGE Publications, London, 2006

RPS 3200 ENVIRONMENT AND ETHICAL ISSUES 4 hr / 2 cr

Objective: *This course is aimed at creating awareness on environmental issues that poses threat to the planet earth. On learning the intricate connections and dependence found in the eco system, the student is guided to take ethical stands on the issue of environmental degradation and to develop eco-friendly world views*

I – Eco System: Structure and Functions
Nature, scope and importance of Environmental studies – concepts of Eco system: Types, Structure and Functions of Eco systems

II – Bio Diversity: Threats and Conservation
Understanding Biodiversity, Value of Biodiversity, India and Biodiversity – threats to India's Biodiversity – Types of Conversation

III – Environmental Pollution
a. Human activities and Pollution – Causes and effects of Air, Water, Soil, Noise, Thermal and nuclear Pollution - Measures of control and management
b. Climate change, Green house effect and global warming, Acid Rain, Ozone layer depletion, Nuclear Accident and Holocaust

IV – Ethical Concern Towards Environment

a. Human's relationship with Nature: Anthropocentrism, Androcentrism and Biocentrism
b. Human Centric Environmentalism Vs Eco-centric environmentalism: Market, Culture, Gender and Environmental Political Issues
c. Holistic and Individualistic moral approaches to nature

V – Radical Ecology and Counter Cultural Movement

a. Land Ethic of Aldo Leopold
b. Deep Ecology
c. Chipko Movement in India and Petra Kelly's Green Movement

Reference:

1. "The Biodiversity of India", Barucha Erach, Mapin Publishing Pvt. Ltd., Ahmadabad, India
2. "Living in the Environment" Miller G.J.R., Wordsworth Publishing company
3. "Environmental Philosophy", Michael E. Zimmerman, Prentice Hall Publishing Co, New Jersey, 1998

NATIONAL CADET CORPS (ARMY)

(with effect from the academic year 2015-'16)

AIM

The aims of NCC are

1. To develop qualities of character, courage, comradeship, discipline, leadership, secular outlook, spirit of adventure, sportsmanship and ideals of selfless service among the youth of the country.
2. To create a human resource of organized, trained and motivated youth, to provide leadership in all walks of life and always be available for the service of the nation.
3. To provide a suitable environment to motivate the youth to take up a career in the Armed Forces.

PART IV: NCC LIFE SKILL

NCC (ARMY) offers two courses NCA 1211 and NCA 1212 as Life Skill courses in I and II Semesters respectively under Part IV program. Students who enroll in NCC ARMY are eligible to study theses courses. The continuous assessments and the end of semester exam will be in the ratio of 50:50.

PART V: NCC FIELD TRAINING

NCC ARMY offers three Field Training courses NCA 1100, NCA 2100, NCA 3100, since it is mandatory for cadets to undergo three years of training as directed by NCC HQ, New Delhi. Evaluation is done based on the practical marks, parade and camp attendance in a year. Second year cadets who attend two years of field training are eligible to appear for NCC 'B' certificate examination. Final year cadets who attend three years of field training are eligible to appear for NCC "C" certificate examination.

NCA 1211 NCC ORGANIZATION AND MILITARY LEADERSHIP 3hr/2cr

The course aims at introducing cadets to the NCC organization, and the Armed Forces such as Army, Navy and Air Force. It helps them understand issues such as leadership traits, national integration, health and sanitation, unity in diversity, civil affairs, environmental awareness, social services, and military leadership.

Unit I NCC AND MILITARY ORGANIZATION

Aims, objectives, motto, organizational structure, organization and ranks in Indian Army, Navy and Air Force, NCC song, incentives of NCC, certificate examinations, honours and awards

Unit II HEALTH, HYGIENE AND FIRST AID

Structure and function of human body, hygiene and sanitation, preventable diseases, water purification, latrines, urinals, soakage pits and disposal of garbage, First Aid: aim, principle, motto, items in First aid box, type of bandages, type of fractures, dislocation, type of wounds, dressing of wounds, first aid in medical emergencies, evacuation of casualties, introduction to yoga, physical and mental health

Unit III NATIONAL INTEGRATION AND CVIL AFFAIRS

Indian History, Religions and culture, traditions and customs, freedom struggle, nationalist movement, national interests, objectives, threats and opportunities, national integration: importance and necessity, problems and challenges, unity in diversity, national integration council, India and its neighbours, contribution of youth in nation building, civil defence organization, natural disasters, fire fighting, disaster management, role of NCC during natural hazards: flood, cyclone, earthquake, message services.

Unit IV ENVIRONMENTAL AWARENESS AND SOCIAL SERVICE

Ecology and environment, biodiversity, wildlife, pollution, environmental conservation, waste management, water conservation, rain water conservation and harvesting, pollution: types, its control measures, basics of social service, weaker sections, NGOs and their role, social evils, drug abuse, corruption, counter terrorism, eradication of illiteracy, AIDS and cancer awareness

UNIT V MILITARY LEADERSHIP

Leadership: traits, types, personality and characteristics development, values, attitude: assertiveness and negotiation, time management, effects of leadership with historical examples, stress management, interview skills, conflict motives, resolution, importance of group/team work, influencing skills, body language, sociability: social skills, values/code of ethics, public speaking and leadership exercises, military leadership, tactics in World War I and II, Pearl Harbor episode, Japanese incursion in Asia Pacific region, case studies: Netaji Subash Chandra Bose, Mussolini, Hitler, Stalin, and Roosevelt.

References:

Cadets' Hand Book Common Subjects. (All wing), published by NCC HQ, New Delhi. pp.1-357.

Cadets' Hand Book Specialized Subjects. (Army wing), published by NCC HQ, New Delhi. pp. 1-254.

Chhettri, R.S. (2012) **Grooming Tomorrow's Leaders**. New Delhi: Ministry of Information and Broadcasting.

Puri, B.B. **Precis**. Kamptee: Officers Training Academy.

NCA 1212 **FIELD CRAFT AND BATTLE CRAFT** 3hr/2cr

The course aims at introducing cadets to the Indian military history and training such as weapon training, field craft, battle craft and military communication and thereby helping them understand the essence of military training.

Unit I INDIAN MILITARY ORGANIZATION

Military terms, history of Indian military, Ministry of Defence, Paramilitary forces: BSF, CRPF and CISF, training for defense recruitment, endurance training

Unit II BASICS OF WEAPON TRAINING

Stripping, assembling, loading, unloading of rifle, Light Machine Gun and Stern machine carbine, characteristic of weapons, (Rifles, LMG and Stern), safety procedures, loading, cocking and unloading of weapons, positions in shooting and its advantages, trigger control and firing, theory of group and snap shooting, short range firing and aiming

Unit III FIELD CRAFT

Elementary field craft: observation and concealment, recognition, description and indication of target, visual training, judging distance, personal camouflage, personal concealment, elementary concealment exercise, types of movements, types of covers, description of ground

Unit IV BATTLE CRAFT

Introduction to map and conventional signs, grid system, cardinal points, finding North, types of bearing, service protractor, relief, contour gradients, setting a map, finding own position, map to ground and ground to map, prismatic compass, night march, field signals, platoon formation, platoon battle drill, section formation, fire and movement, section battle drill, fire control order, types and controls of patrols and scouts, function of patrol, preparation for patrol

Unit V FIELD COMMUNICATION

Importance of communication in Armed Forces, types and methods of communication, characteristics of wireless technology, walkie and talkie, basic RT procedure, modern trends and development (multimedia, video conferencing, IT)

References:

Cadets' Hand Book Common Subjects. (All wing), published by NCC HQ, New Delhi. pp.1-357.

Cadets' Hand Book Specialized Subjects. (Army wing), published by NCC HQ, New Delhi. pp. 1-254.

Chhettri, R.S. (2012) **Grooming Tomorrow's Leaders**. New Delhi: Ministry of Information and Broadcasting.

Puri, B.B. **Precis**. Kamptee: Officers Training Academy.

NCA 1100 NCC ARMY FIELD TRAINING I 1cr

This course is offered to students who enroll in NCC ARMY under Part V program in the first year. Cadets are trained in intensive field training, inculcating the basic foot drills required for various parades.

Unit I FOOT DRILL I

General word of commands, attention, stand at ease and stand easy, turning left and right and inclining at halt, sizing, forming up in three rank numbering

Unit II FOOT DRILL II

Open and close march order, dressing, saluting at the halt, getting on parade, dismissing and falling out

Unit III MARCH PAST I

Marching, length of pace and time of marching, marching in quick time and halt, side pace, pace forward and to the rear

Unit IV MARCH PAST II

Turning at the march and wheeling, saluting at the march, forward march and halt in quick march, changing step, formation of squad, squad drill

Unit V ENDURANCE TRAINING

Basic walking training, running training, techniques, roadworks, military cross country running

NCA 2100 NCC ARMY FIELD TRAINING II 1 cr

This course is sequential training courses to NCC Army Field Training I. Cadets are trained in intensive field training such as drill with arms, and basic map reading techniques.

Unit I ARMS DRILL I

Attention and stand at ease and stand easy, getting on parade with rifle, dressing with rifle, dressing at the order

Unit II ARMS DRILL II

Dismissing and falling out, ground/take up arms, present from the order and vice versa

Unit III ARMS DRILL III

General salute, salame sasthr, squad drill, short and long trail from the order and vice versa, examining arms

Unit IV MAP READING I

Finding north, setting a map, finding own position

Unit V MAP READING II

Map to ground and ground to map, night march

NCA 3100 **NCC ARMY FIELD TRAINING III** 1 cr

This course is a sequential training course to NCC Army Field Training II. Cadets are trained in intensive field training, inculcating the skills required for special parades such as RDC, TSC, and NIC, ceremonial parade, and techniques required for adventure activities such as trekking, mountaineering and parasailing.

Unit I SPECIAL TRAINING I

Independence Day, NCC Day, Republic Day Celebrations, Thal-Sainik Camp, NCC National Games, National Integration Camp

Unit II SPECIAL TRAINING II

Army Attachment Camp, Leadership Training Camp, Youth Exchange Program, and Services Selection Board

Unit III CEREMONIAL DRILL

Guard mounting, guard of honour, squad, platoon, coy drill

Unit IV ADVENTURE ACTIVITY I

Adventure training techniques: cycling, trekking and their impact on physical health

Unit V ADVENTURE ACTIVITY II

Adventure training techniques: rock climbing, mountaineering, slithering and parasailing

NATIONAL CADET CORPS NAVY

(To be followed from the academic year 2015-16)

AIMS AND OBJECTIVES

1. To develop qualities of character, courage, Comradeship, discipline, leadership, secular outlook, spirit of adventure, and sportsmanship and the ideals of selfless service among the youth to make them useful citizens.

2. To create a human resource of organized, trained and motivated youth, to provide leadership in all walks of life including Armed Forces and always available for the service of nation.

3. To create a suitable environment to motivate the youth to take up a career in the armed forces.

DESCRIPTIVE SYLLABUS:

N. C. C. (NAVY) offers two courses as Life skill subjects (NCN 1211 and NCN 1212) in the I and II semesters under Part IV. The students who have enrolled in N.C.C.-NAVY are eligible to undergo this course. The training program promulgated by the N.C.C.- directorate is taken as the basis for syllabus. The syllabi include Naval subjects such as Navigation, Naval Communication, Seaman ship, Anti – Submarine weapons, NBCD, Search and Rescue operations and Service Lectures. It also includes lectures on Leadership, National integration, Historical, Geographical and Religious background of India,. Civil defense, Ecology, Nature awareness, First – Aid and Adventure activities.

PATTERN OF EVALUATION

- The continuous assessments and the final evaluation will be in the ratio 50:50.
- The final examination will be a theory paper testing the proficiency in the subjects and the general topics covered under the syllabus.

For Part V Three Field training courses will be conducted in the academic year I,II and III and the evaluation will be based only on the internal marks + attendance + attending a camp per year.

The evaluation of three field training courses will be done at the end of the first, second and in the third academic year.

PRESCRIPTIVE SYLLABUS FOR NCC NAVY

NCN1211 – NCC ORGANIZATION AND LEADERSHIP- 2 credits

Unit I NCC ORGANISATION

Aims and objectives of NCC – Cardinal points of NCC – Organization of defense forces in general- organizational structure of Indian Army- Organizational structure of NCC- NCC song- Incentives of NCC- Ranks in Army, Air force and Navy – Certificate Examinations in NCC– Honors and Awards.

Unit II HEALTH , HYGIENE AND FIRST – AID

Aims of First Aid – Principle of First Aid – Motto of First Aid – List of items in First aid Box – Types of Bandages – Types of Fracture –Dislocation – Types of Wounds – Burns and Scalds – Sprain – Strain – Asphyxia – Drowning – Poison – Shock – Snake bite – Sun and Heat Stroke – Insect bite – Dog bite – Hanging – Artificial Respiration – Hemorrhage- Artificial respiration- carriage of sick and wounded

Structure and functioning of Human body- Hygiene and sanitation- Physical and mental health- Infectious and contagious diseases and its prevention- basics of home nursing and first aid in common medical emergencies- Introduction to Yoga and exercises

Unit III NATIONAL INTEGRATION AND AWARENESS

Religions and culture- Traditions and customs in India- National integration: Importance and necessity- Freedom struggle- Nationalist movement in India- National interests- objectives- threats and opportunities- Problems and challenges of National integration- Unity and diversity- National integration council- Images and slogans for National integration- Contribution of youth in national building

Unit IV ENVIRONMENT AWARENESS AND SOCIAL SERVICE ACTIVITIES

Ecology and Environment – Biodiversity – Pollution – Environment Conservation – Personal Hygiene – Sanitation – Waste management- water conservation- Rain water conservation and harvesting- Pollution control and types of pollution- Communicable and Non communicable Disease – Methods of purification of drinking water.

Basics of social service- weaker sections in the society and its identification - NGOs and their role and contribution - social evils- Drug abuse- family planning- corruption- counter terrorism- Eradication of illiteracy – Aids Awareness programme – Cancer Awareness Programme

UNIT V LEADERSHIP TRAINING METHODS

leadership traits – types of leadership – attitude: assertiveness and negotiation – time management – effects of leadership with historical examples – stress management skills –

interview skills – conflict motives – resolution – importance of group/team work – influencing skills – body language – sociability: social skills – values/code of ethics - public speaking and other leadership exercises.

Case Studies: Leadership traits of

a) Mahatma Gandhi
b) Jawaharlal Nehru
c) B. R. Ambedkar
d) K. Kamaraj
e) Sardar Vallabai Patel
f) Adolf Hitler
g) Martin Luther King Jr.
h) Nelson Mandela, etc.

REF:

1. **Pamphlets issued by the Ministry of Defense.**

2. **DG- NCC Training directive.**

NCN1212 – NAVAL ORIENTATION AND SEAMANSHIP – 2 credits

Unit I NAVAL ORIENTATION

History of Indian Navy- Organization of Navy- Navy head quarters- commands- Fleets- ships and shore establishments- types of warships and their role- Organization of ships and instruction on onboard organization- Organization of Army-Air Force-Navy commands- Naval customs and traditions- Ranks of officers- sailors- equivalent ranks in three services- mode of entry- Branches of Navy and their functions

Unit II NAVAL WARFARE AND ITS COMPONENTS

Introduction to Anti submarine warfare and fleet operation- role of aviation- Naval aircrafts and helicopters- types of submarines and their role- ASW weapons and sensors- elementary knowledge of gunnery- missiles ant types of mounted guns- Parts of a torpedo- Organization of Ship- RAS- Types of warships.

Unit III SEAMANSHIP

Types of ropes and breaking strength, Bends and hitches, knots and their kinds and uses. Types of cordages Introduction to shackles, hooks, blocks and derricks, coiling down and splicing of rope.

Types of anchor- Parts of anchor- Use of Blocks. Parts of Blocks- Parts of boat- parts of an oar- Instructions in boat pulling- pulling orders- precautions whaler pulling- whaler and enterprise class boat including theory of sailing elementary sailing rules- power boats and types- securing and towing boats

Unit IV NAVIGATION

Navigation of a ship- charts and compass- Map reading- Variation- Deviation- CADET rule- fixing the Ship's position- knots and nautical mile definitions- latitude and longitude markings- types of maps and contours- Types of Compass- Gyro compass- True and magnetic north definitions- Meaning of Flags- GPS- RACON- RADAR- SONAR- Brief characteristics of tides and its effect on ships- causes of tides- tidal streams- clouds- types- formation of clouds and effects- introduction to astronomy- Oceanography, living and non living things in sea, Exclusive economic zone, Marine conservation.

Unit V NBCD

Types of fire- Triangle of fire- Types of fire fighting- water markings in the ship- NBCD organization and structure- Damage control- causes of damage- flooding

REF:

1) **Pamphlets issued by the Ministry of Defense.**
2) **DG- NCC Training directive.**

NCN1100 – NCC NAVY FIELD TRAINING I – 1 CREDIT.

This course is offered to the students who have enrolled in NCC NAVY under Part V scheme in the first academic year. The students will go through intensive field training covering the skills mentioned below:

Basics of Foot Drill:

General word of commands, Attention, stand at ease, turning left, right and inkling at halt. Sizing, forming three ranks and numbering, open and close march order, dressing the squad, Saluting at halt, getting on Parade, dismissing and falling out.

Naval communication:

Introduction to naval modern communication, purpose and principles, duties of various communications department, Semaphore, letters and prosigns, reading and transmission of messages, phonetic alphabets, radio telephony procedure, wearing of National flag, ensign and admirals flag.

NCN 2100 – NCC NAVY FIELD TRAINING II – 1 CREDIT

This course is offered to the students who have enrolled in NCC NAVY under Part V scheme in the second academic year. The students will go through intensive field training covering the skills mentioned below:

Foot Drill on Marching:

Marching, length of pace and time in marching in quick time and halt, slow march and halt, side pace, pace forward and to the rear, Turning on the march and wheeling, saluting on the march, Marching time, forward march and halt in quick march. Changing step, Formation of squad and squad drill.

Knots and Hitches:

Types of ropes and breaking strength, Bends and hitches, knots and their kinds and uses. Types of cordages Introduction to shackles, hooks, blocks and derricks, coiling down and splicing of rope.

NCN 3100 – NCC NAVY FIELD TRAINING III – 1 CREDIT

This course is offered to the students who have enrolled in NCC NAVY under Part V scheme in the third academic year. The students will go through intensive field and outdoor training.

Ship modeling Techniques:

Principles of ship modeling, maintenance of tools, types of models, care and handling of models, repairing the models, chemicals paints and adhesives used in modeling, Stability of the model and its practice

Adventure training:

Adventure training tips, Para sailing and its principles, Slithering, Rock climbing, cycling and trekking and their impacts on physical health.

NATIONAL CADET CORPS (ARMY- SW)

(with effect from the academic year 2015-'16)

AIM

The aims of NCC are

1. To develop qualities of character, courage, comradeship, discipline, leadership, secular outlook, spirit of adventure, sportsmanship and ideals of selfless service among the youth of the country.
2. To create a human resource of organized, trained and motivated youth, to provide leadership in all walks of life and always be available for the service of the nation.
3. To provide a suitable environment to motivate the youth to take up a career in the Armed Forces.

PART IV: NCC LIFE SKILL

NCC ARMY (SW) offers two courses NCW 1211 and NCW 1212 as Life Skill courses in I and II Semesters respectively under Part IV program. Students who enroll in NCC ARMY (SW) are eligible to study theses courses. The continuous assessments and the end of semester exam will be in the ratio of 50:50.

PART V: NCC FIELD TRAINING

NCC ARMY (SW) offers three Field Training courses NCW 1100, NCW 2100, NCW 3100, since it is mandatory for cadets to undergo three years of training as directed by NCC HQ, New Delhi. Evaluation is done based on the practical marks, parade and camp attendance in a year. Second year cadets who attend two years of field training are eligible to appear for NCC 'B' certificate examination. Final year cadets who attend three years of field training are eligible to appear for NCC "C" certificate examination.

NCW 1211 NCC ORGANIZATION AND MILITARY LEADERSHIP 3hr/2cr

The course aims at introducing cadets to the NCC organization, and the Armed Forces such as Army, Navy and Air Force. It helps them understand issues such as leadership traits, national integration, health and sanitation, unity in diversity, civil affairs, environmental awareness, social services, and military leadership.

Unit I NCC AND MILITARY ORGANIZATION

Aims, objectives, motto, organizational structure, organization and ranks in Indian Army, Navy and Air Force, NCC song, incentives of NCC, certificate examinations, honours and awards

Unit II HEALTH, HYGIENE AND FIRST AID

Structure and function of human body, hygiene and sanitation, preventable diseases, water purification, latrines, urinals, soakage pits and disposal of garbage, First Aid: aim, principle, motto, items in First aid box, type of bandages, type of fractures, dislocation, type of wounds, dressing of wounds, first aid in medical emergencies, evacuation of casualties, introduction to yoga, physical and mental health

Unit III NATIONAL INTEGRATION AND CVIL AFFAIRS

Indian History, Religions and culture, traditions and customs, freedom struggle, nationalist movement, national interests, objectives, threats and opportunities, national integration: importance and necessity, problems and challenges, unity in diversity, national integration council, India and its neighbours, contribution of youth in nation building, civil defence organization, natural disasters, fire fighting, disaster management, role of NCC during natural hazards: flood, cyclone, earthquake, message services.

Unit IV ENVIRONMENTAL AWARENESS AND SOCIAL SERVICE

Ecology and environment, biodiversity, wildlife, pollution, environmental conservation, waste management, water conservation, rain water conservation and harvesting, pollution: types, its control measures, basics of social service, weaker sections, NGOs and their role, social evils, drug abuse, corruption, counter terrorism, eradication of illiteracy, AIDS and cancer awareness

UNIT V MILITARY LEADERSHIP

Leadership: traits, types, personality and characteristics development, values, attitude: assertiveness and negotiation, time management, effects of leadership with historical examples, stress management, interview skills, conflict motives, resolution, importance of group/team work, influencing skills, body language, sociability: social skills, values/code of ethics, public speaking and leadership exercises, military leadership, tactics in World War I and II, Pearl Harbor episode, Japanese incursion in Asia Pacific region, case studies: Netaji Subash Chandra Bose, Mussolini, Hitler, Stalin, and Roosevelt.

References:

Cadets' Hand Book Common Subjects. (All wing), published by NCC HQ, New Delhi. pp.1-357.

Cadets' Hand Book Specialized Subjects. (Army wing), published by NCC HQ, New Delhi. pp. 1-254.

Chhettri, R.S. (2012) **Grooming Tomorrow's Leaders**. New Delhi: Ministry of Information and Broadcasting.

Puri, B.B. **Precis**. Kamptee: Officers Training Academy.

NCW 1212 **FIELD CRAFT AND HOME NURSING** 3hr/2cr

The course aims at introducing cadets to the Indian military history and training such as weapon training, field craft, home nursing and military communication and thereby helping them understand the essence of military training.

Unit I INDIAN MILITARY ORGANIZATION

Military terms, history of Indian military, Ministry of Defence, Paramilitary forces: BSF, CRPF and CISF, training for defense recruitment, endurance training

Unit II BASICS OF WEAPON TRAINING

Stripping, assembling, loading, unloading of rifle, Light Machine Gun and Stern machine carbine, characteristic of weapons, (Rifles, LMG and Stern), safety procedures, loading, cocking and unloading of weapons, positions in shooting and its advantages, trigger control and firing, theory of group and snap shooting, short range firing and aiming

Unit III FIELD CRAFT

Elementary field craft: observation and concealment, recognition, description and indication of target, visual training, judging distance, personal camouflage, personal concealment, elementary concealment exercise, types of movements, types of covers, description of ground

Unit IV HOME NURSING

Introduction to home nursing, the roller bandage and its application, the sick room: preparation, cleaning and lighting, ventilation, pulse, respiration and temperature taking and recording, observation of the sick signs and symptoms to be noted, feeding helpless patients, medicines and their administration, fever, infection, disinfection and specific infectious diseases, operation: after care, dressing of wounds, poisons and first aid

Unit V FIELD COMMUNICATION

Importance of communication in Armed Forces, types and methods of communication, characteristics of wireless technology, walkie and talkie, basic RT procedure, modern trends and development (multimedia, video conferencing, IT)

References:

Cadets' Hand Book Common Subjects. (all wing), published by NCC HQ, New Delhi. pp.1-357.

Cadets' Hand Book Specialized Subjects. (Army wing), published by NCC HQ, New Delhi. pp. 1-254.

Chhettri, R.S. (2012) **Grooming Tomorrow's Leaders**. New Delhi: Ministry of Information and Broadcasting.

Puri, B.B. **Precis**. Kamptee: Officers Training Academy.

NCW 1100 **NCC ARMY FIELD TRAINING I** 1cr

This course is offered to students who enroll in NCC ARMY (SW) under Part V program in the first year. Cadets are trained in intensive field training, inculcating the basic foot drills required for various parades.

Unit I FOOT DRILL I

General word of commands, attention, stand at ease and stand easy, turning left and right and inclining at halt, sizing, forming up in three rank numbering

Unit II FOOT DRILL II

Open and close march order, dressing, saluting at the halt, getting on parade, dismissing and falling out

Unit III MARCH PAST I

Marching, length of pace and time of marching, marching in quick time and halt, side pace, pace forward and to the rear

Unit IV MARCH PAST II

Turning at the march and wheeling, saluting at the march, forward march and halt in quick march, changing step, formation of squad, squad drill

Unit V ENDURANCE TRAINING

Basic walking training, running training, techniques, roadworks, military cross country running

NCW 2100 **NCC ARMY FIELD TRAINING II** 1 cr

This course is sequential training courses to NCC Army Field Training I. Cadets are trained in intensive field training, such as drill with arms, and basic map reading techniques.

Unit I ARMS DRILL I

Attention and stand at ease and stand easy, getting on parade with rifle, dressing with rifle, dressing at the order

Unit II ARMS DRILL II

Dismissing and falling out, ground/take up arms, present from the order and vice versa

Unit III ARMS DRILL III

General salute, salame sasthr, squad drill, short and long trail from the order and vice versa, examining arms

Unit IV MAP READING I

Finding north, setting a map, finding own position

Unit V MAP READING II

Map to ground and ground to map, night march

NCW 3100 NCC ARMY FIELD TRAINING III 1 cr

This course is a sequential training course to NCC Army Field Training II. Cadets are trained in intensive field training, inculcating the skills required for special parades such as RDC, TSC, and NIC, ceremonial parade, and techniques required for adventure activities such as trekking, mountaineering and parasailing.

Unit I SPECIAL TRAINING I

Independence Day, NCC Day, Republic Day Celebrations, Thal-Sainik Camp, NCC National Games, National Integration Camp

Unit II SPECIAL TRAINING II

Army Attachment Camp, Leadership Training Camp, Youth Exchange Program, and Services Selection Board

Unit III CEREMONIAL DRILL

Guard mounting, guard of honour, squad, platoon, coy drill

Unit IV ADVENTURE ACTIVITY I

Adventure training techniques: cycling, trekking and their impact on physical health

Unit V ADVENTURE ACTIVITY II

Adventure training techniques: rock climbing, mountaineering, slithering and parasailing

PART - V

Service Learning Programme

SLP - Course Structure

I Year Course

Course No.	Name of the course	Hours	Marks
SLP 1202	Solid waste management on Campus – The American College	120 Hrs	100
SLP 1204	Vaigai Ecology	120 Hrs	100
SLP 1206	Village Ecology – Action on Health	120 Hrs	100
SLP 1208	School Extension Programme	120 Hrs	100
SLP 1210	Child Support Work in Orphanages	120 Hrs	100

II Year Course

Course No.	Name of the course	Hours	Marks
SLP 2202	Solid waste management on Campus – The American College	120 Hrs	100
SLP 2204	Vaigai Ecology	120 Hrs	100
SLP 2206	Village Ecology – Action on Health	120 Hrs	100
SLP 2208	School Extension Programme	120 Hrs	100
SLP 2210	Child Support Work in Orphanages	120 Hrs	100

Solid Waste Management on Campus – The American College I & II

Course No.	Name of the course	Hours	Marks
SLP 1202	Solid waste management on Campus – The American College - I	120	100
SLP 2202	Solid waste management on Campus – The American College - I	120	100

Introduction

Service Learning is a teaching and learning approach that integrates community service with academic study to enrich learning, teach civic responsibility, and strengthen communities. "Learning in a community context" is a basic core of service learning program where learning takes place through experience and provides rational insight to the students. As it engages the students in the community it offers a real life situation and encourages critical and value based thinking. Service Learning program develops knowledge skill and attitude of the students and generates emotional consequences which challenge the conventional values. The Service Learning Program provides subjectivist understanding of the community issues and the participatory techniques of Service Learning Program ensures experience based learning. The students learning in the community will make them to sensitize the issues and develops the ethic and civic responsibility among the students like caring for others, emphatic feelings. The Service Learning Program could lead to innovative teaching- learning method, where the teaching faculty could inculcate their learning experience into pedagogical practices by developing the curriculum in an effective way.

Objectives of Service Learning Program:

- To develop student potentialities to acquire value based knowledge
- To extend the academia to the community through multidisciplinary approaches to community problems.
- To encourage faculty in the use of action learning methodology
- To learn by developing practical solutions in consultation with the community.
- To document learning and develop models based on learning.

Solid Waste Management on Campus – The American College - I

Course Code: SLP 1202 **120 Hrs- 2 Credits**

Solid Waste Management on Campus – The American College - II

Course Code: SLP 2202 **120 Hrs- 2 Credits**

Course Objective:

This course aims at introducing the students about the solid waste and its management in the American College

Basic Orientation about Service Learning Programme and Project

1) Understanding of the American College campus – Observational visits to the various zones of American college
2) Sensitization of the students regarding environment with special emphasis on solid waste management.
3) Inculcation of positive attitudinal change among American college community with respect to Solid waste Management.
4) Identification, quantification and documentation of the various solid wastes in The American College.
5) Observation and photo documentation of the means of accumulation of solid waste during working days and special occasions and evolve methods to manage it.
6) Engineering various scientific methods to manage the solid waste in American college -Exploring possibilities to set up recycling unit.

Evaluation Pattern:

Attendance - 35 marks

Field Diary - 40 marks

Final Viva - 25 marks

VAIGAI ECOLOGY I & II

Course No.	Name of the course	Hours	Marks
SLP 1204	Vaigai Ecology - I	120 Hrs	100
SLP 2204	Vaigai Ecology - II	120 Hrs	100

Introduction

Service Learning is a teaching and learning approach that integrates community service with academic study to enrich learning, teach civic responsibility, and strengthen communities. "Learning in a community context" is a basic core of service learning program where learning takes place through experience and provides rational insight to the students. As it engages the students in the community it offers a real life situation and encourages critical and value based thinking. Service Learning program develops knowledge skill and attitude of the students and generates emotional consequences which challenge the conventional values. The Service Learning Program provides subjectivist understanding of the community issues and the participatory techniques of Service Learning Program ensures experience based learning. The students learning in the community will make them to sensitize the issues and develops the ethic and civic responsibility among the students like caring for others, emphatic feelings. The Service Learning Program could lead to innovative teaching- learning method, where the teaching faculty could inculcate their learning experience into pedagogical practices by developing the curriculum in an effective way.

Objectives of Service Learning Program:

- To develop student potentialities to acquire value based knowledge
- To extend the academia to the community through multidisciplinary approaches to community problems.
- To encourage faculty in the use of action learning methodology
- To learn by developing practical solutions in consultation with the community.
- To document learning and develop models based on learning.

VAIGAI ECOLOGY - I

Code: SLP1204 **120 hrs- 2** Credits

VAIGAI ECOLOGY - II

Code: SLP2204 **120 hrs- 2** Credits

Course Objective:

The objective of the course is to create awareness among students on importance and ecological issues of Vaigai river, socio-economic, health and nutrition aspects of the community living on the river basin. Students are expected to explore the Vaigai river by doing specific activities, reflect upon their experiences and share it with the community.

Basic Orientation about Service Learning Programme and projects

Understanding Vaigai River

Exploring Vaigai River

Students are expected to walk around and observe the Vaigai River and people living on its basin.

Historical importance of Vaigai River

Students shall gather information on the historical background of Vaigai river. Students will visit the Vaigai dam.

Cataloguing vegetation of Vaigai river bed

Plants have to be collected from the Vaigai river bed, identified and their unique properties if any are to be discussed. Vegetation at different areas of the Vaigai river bed can be compared.

Man made intervention in Vaigai River over the years.

Students have to collect information on the status of the river in the earlier days through literature and interview with the long term residents of Madurai.

Role of Govt. and NGO's in conserving the Vaigai River.

Students along with the faculty member will be visiting the Government offices and collecting the status of ongoing as well as completed projects related to Vaigai river.

Sociological features

To know the Vaigai river community

Collection of information regarding socio – economic status through Interview schedule about the people living around the river basin.

Livelihood of the river community

Document the major occupation of the community during earlier days, at present and their future prospects.

The perception of younger generation about the Vaigai

Students will interview the younger generation (below 30yrs of age) and understand their opinion and how they emotionally relate themselves to Vaigai river.

Education of children in the Vaigai community

Students will visit the schools in the Vaigai river bed and find out the standard of education, school dropouts, job prospects.

Health and nutrition status of the community

Students will be developing a interview scheule to collect information viz. age, height, weight, prevalence of common diseases,fertility and infant mortality rate, immunization of children, food habits of people living in the river basin.

Ecological aspects

To know the major types of pollution in Vaigai river

Students will visit different zones (urban and rural region) of Vaigai river and document the types of pollution.

Analyse the source of drinking water for the community

Students will interact with the community and find out their source of drinking water during earlier days and at present.

Farmers dependence on Vaigai for irrigation purpose

Students will be visiting the villages in the Vaigai flow region, interview the farmers and find out their dependence on Vaigai river for agriculture purposes and how it has changed in due course.

Solid waste disposal in Vaigai

Vaigai has become a dumping ground for solid waste materials (domestic/hospital) in recent days. Students will make a field study and find out the sources of solid wastes, their effect on community and suggest preventive measures.

Environmental concerns during festival seasons

Students will observe and photo document the vulnerable areas in the river before and immediately after festivals. Impact on river and measures to prevent / reduce the damage will be discussed.

Evaluation Pattern:

Attendance - 35 marks

Field Diary - 40 marks

Final Viva - 25 marks

Village Ecology –Action on Health I & II

Course No.	Name of the course	Hours	Marks
SLP 1206	Village Ecology – Action on Health - I	120 Hrs	100
SLP 2206	Village Ecology – Action Health - II	120 Hrs	100

Introduction

Service Learning is a teaching and learning approach that integrates community service with academic study to enrich learning, teach civic responsibility, and strengthen communities. "Learning in a community context" is a basic core of service learning program where learning takes place through experience and provides rational insight to the students. As it engages the students in the community it offers a real life situation and encourages critical and value based thinking. Service Learning program develops knowledge skill and attitude of the students and generates emotional consequences which challenge the conventional values. The Service Learning Program provides subjectivist understanding of the community issues and the participatory techniques of Service Learning Program ensures experience based learning. The students learning in the community will make them to sensitize the issues and develops the ethic and civic responsibility among the students like caring for others, emphatic feelings. The Service Learning Program could lead to innovative teaching- learning method, where the teaching faculty could inculcate their learning experience into pedagogical practices by developing the curriculum in an effective way.

Objectives of Service Learning Program:

- To develop student potentialities to acquire value based knowledge
- To extend the academia to the community through multidisciplinary approaches to community problems.
- To encourage faculty in the use of action learning methodology
- To learn by developing practical solutions in consultation with the community.
- To document learning and develop models based on learning.

Village Ecology –Action on Health - I

Course Code: SLP 1206 **120 Hrs-2 Credits**

Village Ecology –Action on Health - II

Course Code: SLP 2206 **120 Hrs-2 Credits**

Course Objective:

To develop awareness among our students about village ecology and health related issues in village.

Basic Orientation about Service Learning Programme.

1. Understanding village life -past and present scenario.
2. Understanding the ecology of the selected village.
   -Documentation about soil, water resources, flora, fauna and metrological data of the village.
3. Critical understanding of agriculture and irrigation practices in the selected village,
4. Health profiling old age people, women and children.
5. Documentation of traditional health Care practices in the village.
6. Understanding the prevalence of major ailments and the health care systems prevailing in the village like Anganvadis, Primary Health centre, Government Hospitals.

Evaluation Pattern:

Attendance - 35 marks

Field Diary - 40 marks

Final Viva - 25 marks

School Extension Work I & II

Course No.	Name of the course	Hours	Marks
SLP 1208	School Extension Programme	120 Hrs	100
SLP 2208	School Extension Programme	120 Hrs	100

Introduction

Service Learning is a teaching and learning approach that integrates community service with academic study to enrich learning, teach civic responsibility, and strengthen communities. "Learning in a community context" is a basic core of service learning program where learning takes place through experience and provides rational insight to the students. As it engages the students in the community it offers a real life situation and encourages critical and value based thinking. Service Learning program develops knowledge skill and attitude of the students and generates emotional consequences which challenge the conventional values. The Service Learning Program provides subjectivist understanding of the community issues and the participatory techniques of Service Learning Program ensures experience based learning. The students learning in the community will make them to sensitize the issues and develops the ethic and civic responsibility among the students like caring for others, emphatic feelings. The Service Learning Program could lead to innovative teaching- learning method, where the teaching faculty could inculcate their learning experience into pedagogical practices by developing the curriculum in an effective way.

Objectives of Service Learning Program:

- To develop student potentialities to acquire value based knowledge
- To extend the academia to the community through multidisciplinary approaches to community problems.
- To encourage faculty in the use of action learning methodology
- To learn by developing practical solutions in consultation with the community.
- To document learning and develop models based on learning.

School Extension Work - I

Course Code: SLP 1208 **120 Hrs-2 Credits**

School Extension Work - II

Course Code: SLP 2208 **120 Hrs-2 Credits**

Course Objective:

This course aims at making the students to understand the issues in the educational environment experienced by the socio – economically backward children in the school and sharing of academic resources of the college with the school.

Basic Orientation about Service Learning Programme

1. Understanding the selected schools and their current education system
   -Students will go for observational visits to schools and document their understanding of school education system
2. Sharing knowledge and skill of the American college with selected schools
   -Facilitate the School teachers and students to make use of the academic resources of American college
3. Promotion of school environment -To help in school maintenance system and management practices.
4. Understanding problems and issues of slow learners
5. Understanding the reason for school drop out
6. To understand the patterns of relationship prevailing in the school
7. Understanding the different issues involved in the book – learning method and Activity Based Learning through observation, interviews and any other appropriate methods.
8. Understanding the issues in the usage of teaching aids.
9. Understanding issues involved in learning ability of the children and their socio economic status.
10. Sensitization of the children about nature and environment

Note 1: The understanding of various issues that are developed through the above service learning initiatives shall be shared with the school community and suggestions to address the issues will be made.

Evaluation Pattern:

Attendance - 35 marks

Field Diary - 40 marks

Final Viva - 25 marks

Child Support Work in Orphanages – I & II

Course No.	Name of the course	Hours	Marks
SLP 1210	Child Support Work in Orphanages - I	120 Hrs	100
SLP 2210	Child Support Work in Orphanages - II	120 Hrs	100

Introduction

Service Learning is a teaching and learning approach that integrates community service with academic study to enrich learning, teach civic responsibility, and strengthen communities. "Learning in a community context" is a basic core of service learning program where learning takes place through experience and provides rational insight to the students. As it engages the students in the community it offers a real life situation and encourages critical and value based thinking. Service Learning program develops knowledge skill and attitude of the students and generates emotional consequences which challenge the conventional values. The Service Learning Program provides subjectivist understanding of the community issues and the participatory techniques of Service Learning Program ensures experience based learning. The students learning in the community will make them to sensitize the issues and develops the ethic and civic responsibility among the students like caring for others, emphatic feelings. The Service Learning Program could lead to innovative teaching- learning method, where the teaching faculty could inculcate their learning experience into pedagogical practices by developing the curriculum in an effective way.

Objectives of Service Learning Program:

- To develop student potentialities to acquire value based knowledge
- To extend the academia to the community through multidisciplinary approaches to community problems.
- To encourage faculty in the use of action learning methodology
- To learn by developing practical solutions in consultation with the community.
- To document learning and develop models based on learning.

Child Support Work in Orphanages - I

Course Code: SLP 1210 120 Hrs- 2 Credits

Child Support Work in Orphanages - I

Course Code: SLP2210 120 Hrs- 2 Credits

Course Objective:

To broaden the awareness of issues faced by children in orphanages through building capacities among such children and thereby creating ethic and civic responsibility among the students of The American College.

Basic Orientation about Service Learning Programe and projects.

1. Profiling orphanages in Madurai District

2. Socio Economic Profile of the children in selected orphanages.

3. Sharing of the Knowledge and skill prevailing in American College with the selected orphan- centres.

4. Inculcation of health and hygiene awareness and practices of the children in the orphanages.

5. Setting of Library in the selected orphan centers and inculcating reading practices.

6. Engaging and imparting creative skills among the children in the orphanage home.

7. Sensitization of the children about nature and environment.

Evaluation Pattern:

Attendance - 25marks

Field Dairy - 35 marks

Final Viva - 25 marks

POSTGRADUATE DEPARTMENT OF ENGLISH (SF)
Programme for M.A. ENGLISH from 2015 - 2016 onwards

Semester	Course code	Course Title	Hours	Credits	Marks
I	PSE 4601	Chaucer to Shakespeare	10	6	120
	PSE 4403	Milton to Dryden	6	4	80
	PSE 4405	Pope to Johnson	6	4	80
	PSE 4407	Advanced Interpretation of Literature and Rhetoric	4	4	80
	PSE 4409 PSE 4411	Elective 1. English for Employment 2. English for Education Abroad	4	4	80
		TOTAL	**30**	**22**	**440**
II	PSE 4402	Romantic Literature	6	4	80
	PSE 4404	Victorian Literature	6	4	80
	PSE 4406	Modern Literature	6	4	80
	PSE 4408	Structure of Modern English	6	4	80
	PSE 4410 PSE 4412	Elective 1. English for Media 2. Literary Translations	6	4	80
		TOTAL	**30**	**20**	**400**
III	PSE 5401	Contemporary Literature	6	4	80
	PSE 5403	History of the English Language	6	4	80
	PSE 5505	Theories of Literature	6	5	100
	PSE 5407	Indian Writing in English	6	4	80
	PSE 5409 PSE 5411	Elective 1. African American Literatures 2. Canadian Literature	6	4	80
		TOTAL	**30**	**21**	**420**
IV	PSE 5402	American Literature	5	4	80
	PSE 5504	Literary Theories I	5	5	100
	PSE 5406	Teaching English as a Second Language	5	4	80
	PSE 5408	New Literatures in English	5	4	80
	PSE 5410 PSE 5412	Elective: Research Methodology 1. Literature 2. English Language Teaching	4	4	80
	PSE 5614	Project	6	6	120
		TOTAL	**30**	**27**	**540**
		TOTAL	**120**	**90**	**1800**

PSE 4601 **Chaucer to Shakespeare (CS)** **10 Hr./6 Cr.**

This aims to expose students to the major authors and works from the Middle English to Elizabethan Literature that includes the works of all the major authors from 14th to 17th centuries.

Objectives:

At the completion of this course the students shall be able to

i. read closely and understand Middle English in general, the narrative technique of Chaucer, the people and trade of his time through the characters.
ii. recognize and understand figurative language, such as allegory and metaphor, and literary techniques, like irony, rhyme, and allusion.
iii. learn and appreciate Shakespeare's poetic diction, mastery of characterization and versatility in plot construction
iv. learn dramatic elements and identify the unique qualities of the authors studied, and compare and contrast them.
v. grasp and comprehend prose works and shall be able to develop a well-written argument about one or more literary texts or authors, and accurately cite literary and other sources.

Unit 1 Geoffrey Chaucer's Prologue to Canterbury Tales

Unit 2

Extract from Faerie Queene – Edmund Spenser
Epithalamium – Philip Sidney
The Battle of Agincourt – Michael Drayton
Sonnets – Shakespeare
i. Shall I Compare Thee to a Summer's Day (No. 18)
ii. As An Unperfected Actor on The Stage (No. 23)
iii. Against That Time (No. 49)
iv. Some Say Thy Fault Is Youth (No. 96)
v. Beshrew That Heart That Makes My Heart to Groan (No.133)

Unit 3 Shakespeare

Tragedy – Othello
Comedy – As You Like It
History – Henry IV Part I

Unit 4 Drama

Edward II - Christopher Marlow
Every Man in His Humour – Ben Jonson
Duchess of Malfi - John Webster

Unit 5 Prose

Essays of Francis Bacon
Of Truth
Of Goodness and Goodness of Nature
Of Atheism
Of Simulation and Dissimulation
Of Marriage and Single Life
School of Abuse – Stephen Gosson
Excerpts from School Master – Roger Ascham

SELF STUDY

Epithalamium – Philip Sidney
Bacon's Essays
Of Atheism
Of Simulation and dissimulation
The School of Abuse – Stephen Gosson
History – Henry IV Part I

Reference:

Bennett, Joan. **Five Metaphysical Poets**. Oxford: CUP, 1964.
Behrdendt, Stephpen C. **History and Myth.** Michigan: Wayne State University Press, 1990.
Brewer, D.S. **Chaucer.** London: Longman, 1973.
Hobsboum, Philip). **Tradition and Experiment in English Poetry**. Norfolk: Macmillan, 1979.
Parfitt, George. **English Poetry of the Seventeenth Century.** New York: Longman, 1985.
Richards, Bernard. **English Poetry of the Victorian Period 1830-1890.** New York: Longman, 1988.
Waston, J.R. **English Poetry of the Romantic Period 1789- 1830.** New York: Longman, 1985.
Wilson, Katherine M. **Shakespeare's Sugared Sonnets.** London: William Brothers, 1974.

Bradby, G. **About Shakespeare and His Plays.** OUP, 1927.

Bradley, A.C. **Shakespearean Tragedy.** London: Macmillan, 1904.

Brown, John Russell. **Shakespeare and His Comedies.** London: Methuen & Co. Ltd., 1968.

Charlton, H. **Shakespearean Comedy.** London: Methuen & Co. Ltd., 1955.

PSE 4403 **Milton to Dryden (MD)** **6 Hr./4 Cr.**

The purpose of this course is to introduce students to the major genres of literature, literary writers between 1620 and 1750, the religious fervour of Milton, remarkable development of prose and the spirit of satire in the age.

Objectives

At the completion of this course the students shall be able to

i. explain the characteristics of epic poetry
ii. describe Milton's choice of religious subjects, the sense of responsibility and moral exaltation
iii. interpret the Metaphysical ,cavalier and satirical poetry
iv. appreciate the development of prose written on history, politics and Philosophy
v. analyze the plot structure and characters in the plays of the age.

Unit I: Epic Poetry

John Milton-Paradise Lost Book Ix

Unit II: Metaphysical Poetry, Cavalier Poetry & Satirical Poetry

John Donne-Valediction: Forbidding Mourning
George Herbert- The Pulley
Henry Vaughan- The Retreat
Richard Lovelace- To Althea from Prison
Sir John Suckling- Ballad upon a wedding
John Dryden -Mac Flecknoe

Unit III: Prose

Sir Thomas Browne- Urn Burial - Chapter V
John Milton- Areopagitica
Jeremy Taylor- On the Vanity and Shortness of Man's life
Samuel Pepys- The Diary
John Evelyn- The Diary
John Dryden- An Essay of Dramatic Poesy

Unit IV: Drama

John Dryden- All For Love
William Congreve- The way of the World

Unit V: Novel

John Bunyan- Grace Abounding

Self Study:

1. Henry Vaughan - The Retreat
2. Richard Lovelace - To Althea from Prison
3. John Evelyn - The Diary
4. William Congreve -The way of the World

References:

Bennett,Joan. **Five metaphysical Poets**.Oxford :CUP,1964
Whitridge,Arnold and John Wendell Dodds.**An Oxford Anthology of English Prose.** Newyork: Oxford University Press .1937
Esslin,Martin. **The field of Drama**.London:Methuen,1987
Watson, G.J. **Drama: An Introduction.** London: Macmillan, 1983.
Albert,Edward. **History Of English Literature.** Oxford University Press.1979
Loftis,John E."**Congreve's Way of the World and Popular Literature" Studies in English Literature** 1500-1900,Vol.36,No.3,Summer 1996.PP 561-578

PSE 4405 **Pope to Johnson** **6 Hr./4 Cr.**
(PJ)

This course covers the historical incidents and the major works from the age of Pope till the transition period. It gives the students a great exposure through all the genre of literature.

Objective

At the completion of this course the students shall be able to

i. Appreciate the poetic taste of the age
ii. Critically comment and respond on the transitional writings
iii. Expound the social and political conditions of the age by reading the text
iv. Experience a wide range of dramatic style and art of the period
v. Understand the characters and plot structures of the age of pope

Unit I: Poetry

1. Rape of the lock – Alexander Pope
2. Noctural Reverie – Lady Winchelsea
3. Trivia, From Book II: Of walking the streets by day- John Gay
4. The Vanity of Human Wishes – Samuel Johnson
5. Deserted village – Oliver Goldsmith

Unit II: Poetry

1. The Season- James Thomson
2. Elegy written in a country churchyard – Thomas Gray
3. Ode to evening – William Collin
4. The house of prayer – William Cowper
5. A red, red rose– Robert Burns
6. The Tyger– William Blake

Unit III: Prose

1. Citizen of the world "The man in black" – Oliver Goldsmith
2. Decline and fall of the Roman empire – Edward Gibbon
3. Life of Samuel Johnson – James Boswell
4. An essay concerning human understanding – John Locke
5. Lives of poets " Life of Milton" – Samuel Johnson
6. A tale of tub – Jonathan swift
7. On recollection of childhood – Richard Steele
8. Sir Roger in Westminster abbey – Joseph Addison

Unit IV: Drama

1. She Stoops to Conquer-Goldsmith
2. School for Scandals- Sheridan

Unit V: Novel

1. Pamela - Richardson
2. Vicar of Wakefield – Goldsmith
3. Tristram Shandy – Laurence Sterne
4. Moll Flanders – Daniel Defoe

Self study

1. The Vanity of Human Wishes – Johnson
2. A red, red rose -Robert Burns
3. The Tyger– William Blake
4. An essay concerning human understanding – John Locke
5. On recollection of childhood – Richard Steel
6. School for Scandals- Sheridan
7. Vicar of Wakefield – Goldsmith

Reference:

Mondschein, Dee. **"Rumnold'sDunciad".Rev. of the Dunciad in four books by Alexande Pope. Essay in criticism**, Vol.51, No.2, April 2001. PP. 251- 259.
Hernandoz, Alex Eric. **"Commodity and Religion in Pope'sThe rape of the Lock"Studies in English literature** 1500 -1900, Vol.48, No.3, Sum 2008. PP. 569 – 584.
Mahnoy, Robert. **"Lyrical Antithesis: The Moral Style of the Deserted Village."** Ariel, Vol.s, No.2, Apr 1977. PP. 33 – 47.

Nelson, T.G.A. **"Stooping to Conquer in Goldsmith, Haywood, and Wycherley"Essay in criticism,** Vol.46, No.4, October 1996 PP.319 – 323.
Ìngrassia, Catherine. **"I am become a mere Usurer": Pamela and Domestic Stack – Jabbing. Studies in the novel,** Vol.30, No. 3, Fall 1998. PP.303 – 323.
Danziger, Marliesk, "Goldsmith & Sheridan"Fredrick Ungar Publishing Co. NewYork. 1978.
Lonsdale, **Roger "The Poems of Thomas Gray, William Collins, Oliver Goldsmith** Longmans Green and co ltd. 1969
Sells A. Lytton. **Oliver Goldsmith His life and works** London George Allen & unwin Ltd. 1974
Roger Pat, **Essay on Pope** Cambridge University Press. 1993
W.E. Williams **A Book of English Essays** Penguin Books. 1942
Word David, **Essay on Pope** Cambridge University Press. 1993

PSE 4407 Advanced Interpretation of Literature and Rhetoric (ILAR) 4 Hr./4 Cr.

The Course focuses on interpreting the meaning and significance of what happens in the text and how the text represents those events. Students are expected to develop professional-level, independent, critical thinking skills that allow them to solve problems and develop original ideas on their own.

Objectives

At the end of the Course, students shall be able to

i. Analyze the way language attempts to represent issues and human experiences and how readers can find meaning within those representations
ii. Examine how the text is written affects its meaning
iii. Read the text more closely and analyze the details in order to reassemble them in a coherent argument
iv. Write arguments to convince others to interpret texts as they do

Unit 1: Understanding language

i. Dorris Summer: Language, Culture, & Society
ii. Paul J Hopper: Linguistics

Unit 2: Forming Texts

i. Susan J Jarratt: Rhetoric
ii. Charles Bernstein: Poetics

Unit 3: Reading Literature and Culture

i. Leah S Marcus: Textual Scholarship
ii. Jerome McGann: Interpretation

Unit 4: Reading Literature and Culture

i. Catherine Gallagher: Historical Scholarship
ii. J Michael Holquist: Comparative Literature

Unit 5: Reading Literature and Culture

i. Jean Franco: Cultural Studies
ii. Lawrence Venuti: Translation Studies

Reading List

Marshall, Donald G. "Literary Interpretation." **Introduction to Scholarship in Modern Languages and Literatures.** 2nd ed. Ed. Joseph Gibaldi. New York: Modern Languages Association of America, 1992.

Nicholls, David G. **Introduction to Scholarship in Modern Languages and Literatures.** 3rd ed. New York: Modern Languages Association of America, 2007.

Thorpe, James. **The Aims and Methods of Scholarship in Modern Languages and Literatures.** 2nd ed. Hyderabad: American Studies Research Centre, 1970

PSE 4409 ENGLISH FOR EMPLOYMENT (EE) 4 Hrs./4 Cr.

English has become the language of the business world. Since students step into the corporate world, it becomes important to articulate and communicate at their job interviews. This course focuses on equipping students with overall development of linguistic and communication skills. Further, it also enhances their employment potentials and enables them to excel in competitive examinations successfully.

Objectives

At the completion of this course the students shall be able to

i. Listen and speak intelligibly
ii. Read and think critically
iii. Learn how to write for specific purposes
iv. Write without much problem
v. Gain knowledge how to write content writing for www

Unit 1: Aural and Oral skills

English fluency skills, listening skills, presentation skills, negotiation skills, interview skills, group discussion, using the telephones

Unit 2: Reading skills

Vocabulary building, analytical reasoning, comprehension, cloze reading

Unit 3: English for specific purposes

Writing for specific purposes, journalism, reporting, feature writing, technical writing

Unit 4: Writing skills

Structured writing, sentence skills, composition skills, writing CV, letter writing, writing emails, business and social networking sites,

Unit 5: Writing for WWW

Technical writing, content writing, web publishing

References

Mohan, Krishna & Banerji, Meera. **Developing Communication Skills** New Delhi: Macmillan, 2009

Kalkar, Anjali et al. **Textbook of Business Communication.** Hyderabad, Orient Blackswan, 2010

Thorpe, Edgar and Showick Thorpe. **Objective English,** New Delhi: Peasrson, 2012

Baba, Steve. 2012. Sat Vocabulary Words. **www.freevocabulary.com**. Retrieved on 18 February 2014.

PSE 4411 **ENGLISH FOR EDUCATION ABROAD (EEA)** **4Hrs. / 4Cr.**

This course is designed as a preparatory course for students who aspire to take TOEFL/IELTS, and other qualifying tests to pursue higher education abroad. It will also equip students with the language skills namely listening, speaking, reading, and writing.

Objectives

At the completion of this course the students shall be able to

i. Develop their listening skills
ii. Improve in communicating their thoughts
iii. Enhance their reading skills
iv. Learn the structures of writing
v. Write critically and comprehensibly

Unit 1: Listening skills

Watch and listen conversations, presentations and News – get accustomed to phonological changes, rhythms, pitch, and intonation of natural spoken English

Unit 2: Speaking skills

Short conversations –details, idiomatic expressions, suggestions, assumptions, predictions, implications, problems, topics - Longer conversations – informal conversations, academic conversations - Talks – Lectures – class discussions, group discussions, academic talks, lectures.

Unit 3: Reading skills

Identifying the main idea and supporting details of a text – scan and skim the texts to find specific information – guess unknown words in a text through the use of a contextual clues and decoding strategies – think critically in response to a text understand a wide range of content words and idiomatic expressions in a text.

Unit 4: Structured writing

Pattern-verbs and tense, modals-related patterns, conditionals, subjunctives. Style-point of view, agreement, introductory verbal modifiers, parallel structure, redundancy, word choice, etc.,

Unit 5: Writing skills

Develop and understand sentence structures and paragraph. Understand and use the key concepts of paragraph-writing such as topic sentence, supporting sentences, concluding sentences.

References

Hewings, Martin. **Advanced English Grammar: A Self study Reference and Practice Book for Advanced South Asian Students, with Answers.** New Delhi: Foundation Books, 1999.

Lewis, Norman. **How to Read better and Faster.** New Delhi: Binny Publishing House, 1978.

Sharpe, Pamela J. Barron's **TOEFL iBT**. New Delhi: Galgottia, 2013

Swan, Michael. **Practical English Usage.**_International Student's Edition. Oxford: OUP, 2000.
Turton, Nigel D. **ABC of Common Errors: For Learners of English.**_Delhi: Macmillan, 1997.
Wood, Frederick. **Current English Usage.**_London. Macmlan, 1987.
Zandvoort. R. W. **A Handbook of English Grammar.**_London: Longman, 1976.

PSE 4402 **Romantic Literature** **6 Hr./4 Cr.**
(RL)

This course includes the poetry, prose and fiction of The Romantic age. It includes the works of the major and minor authors of the age that reflect the uniqueness of romantic spirit.

Objectives

At the completion of this course the students shall be able to

i. Understand the characteristics of Romantic poetry in general and the individual views and expressions of major authors.
ii. The select pieces shall sharpen their critical thinking to analyze and
iii. This course shall make them sensitive to observe and appreciate nature and create love and concern for nature.
iv. Exposition to such kinds poems shall lead them to approach environmental issues from nature's perspective

Unit 1: Major poets

William Wordsworth
Prelude: Book I
Ode: Intimations Of Immortality From Recollections Of Early Childhood
I Wandered Lonely As a Cloud

Samuel Taylor Coleridge
Rime of the Ancient Mariner
Dejection: An Ode

Unit 2: The Second Generation Poets

John Keats
- Ode to Autumn
- La Belle Dame Sans merca
- Endymion

Percy Bysshe Shelley
- Adonais: An Elegy On The Death Of Keats
- Ode To Skylark
- Stanzas Written in Dejection
- Invocation

Byron
- The Vision of Judgment

Unit 3: Prose

Charles Lamb
- Dream Children
- South Sea House
- Christ's Hospital
- A Bachelor's Complaint of The Behaviour of Married People

Unit 4: Novel

Ivanhoe - Sir Walter Scott
Emma - Jane Austen

Unit 5: Drama

Prometheus Unbound – Shelley

SELF STUDY

I Wandered Lonely As A Cloud
Dejection: An Ode
Ode to Autumn
Stanzas Written in Dejection
Christ's Hospital
Emma

Reference:

Abrams, M.H. **A Glossary of Literary Terms.** New York: Hold, Reinhard and Winston, 2000.
Barber, Charles. **Poetry in English: An Introduction.** London: The Macmillan Press, Ltd., 1983.
Boulton, Marjorie. **The Anatomy of Poetry.** New Delhi: Kalyani Publishers, 1979.
Coombes, H. **Literature and Criticism.** New York: Penguin Books Ltd., 1980.
Perrine, Laurence. **Sound and Sense.** New York: Harcourt Brace Jovanovich, Inc., 1976.
Phythian, B.A. (ed.) **Considering Poetry.** London: Hodder and Stoughton, 1987.

PSE 4404 **Victorian Literature** **6 Hr./4 cr.**
(VL)

This course aims to introduce students the major literary writers and their contributions during the Victorian age which includes the theme of material and intellectual development, the conflict between science and religion with sudden modernization . The course further intends to introduce students to the various literary genres of The Victorian Age.

Objectives

At the completion of this course the students shall be able to

i. explain the ornate style of Tennyson who developed artistic schemes of vowel-music, and alliteration in his poems
ii. interpret the poems of Pre-Raphalites
iii. analyze the prose styles with its clear cut expressiveness and rhythm.
iv. describe the characters of the fiction in the Victorian Age
v. generate new ideas towards poetry, prose and fiction

Unit I: Poetry

Alfred Lord Tennyson - Ulysses, The Lotos Eaters
Robert Browning - Andrea Del Sarto, Rabbi Ben Ezra
Mathew Arnold - Dover Beach, The Scholar Gipsy

Unit II: Pre-Raphalite's Poetry

Dante Rossetti - The Blessed Damozel
William Morris - Summer Dawn
A.C.Swinburne - Songs Before Sunrise

Unit III: Prose

Thomas Carlyle - Past and present:The English
Thomas Babington Macaulay - Civil disabilities of the Jews
John Henry Newman - Excerpts from The idea of a Univesity
John Ruskin - Sesame and Lillies

Unit IV: Novel

Charles Dickens - Great Expectations
William Makpeace Thackeray - Vanity Fair
George Eliot - The Mill On The Floss
Emile Bronte - Wuthering Heights

Unit V: Drama

Oscar Wilde -The Importance of Being Earnest

Self Study:

1. Robert Browning-Andrea Del Sarto
2. Dante Rossetti-The Blessed Damozel
3. John Ruskin-Sesame and Lillies
4. William Makepeace Thackeray-Vanity Fair

References:

Richards,Bernard. **English Poetry Of the Victorian Period** 1830-1890.NewYork:Longman,1988
Whitridge,Arnold and John Wendell Dodds. **An Oxford Anthology of English Prose**. Newyork: Oxford University Press .1937
Jeremy,Hawthorn(ed.).**The Nineteenth Century British Novel**.London:Edward,Arnold,1986
Albert, Edward. **History Of English Literature.** Oxford University Press.1979
Crowley,James P."**Pip's Spritual Exercise:The meditative Mode in Dicken's Great Expectations".Essays on Values in Literature,**Vol.46,No 2,Win 1994.PP.133-143
J.S.Rev.**Of Vanity Fair:An Authoritative Text,Backgrounds and Contents,Criticism by William Makepeace Thackeray** Ed.by Peter Shillngsburg.**The Times Literary Supplement**,No.4804,Apr 28 1995.PP.24
Jordan,Robert J. **Satire and Fantasy in Wilde's "The Importance of Being Earnest."**Ariel,Vol-1,No.3,July 1970.PP.101-109

PSE 4406 **Modern Literature (ML)** **6 Hr./4 Cr.**

This course intends to provide the students of English Literature an exposure to the twentieth century English Literature. The collections of works of various authors written under different genres given in this course allow students to taste the spontaneity and craftsmanship of poets' emotion. Moreover students can understand the works of prose writers, life reflecting dramas and reality based novels.

Objectives

At the completion of this course the students shall be able to

i) understand realistic writings, the influence of Romanticism and the dehumanizing effects of Industrialization of the twentieth century.

ii) familiarize with Modernist Avant-garde and the Blooms Bury group of individuals' writings and to understand the creativity of fiction writers

iii) perceive twentieth century poetry with all its poetical aspects

iv) experience the prevailed twentieth century social problems through the work that present human life in different Perspectives

v) use the wisdom and knowledge given by intellectual writers of twentieth century prose

Unit I **Fiction**

1) Thomas Hardy - Tess of the D' Urbervilles
2) Joseph Conrad - Heart of Darkness
3) D.H. Lawrence - Sons and Lovers

Unit II **Fiction**

1) James Joyce - A Portrait of the artist as a young man
2) Virginia Woolf - Mrs. Dalloway
3) Somerset Maugham - Of Human Bondage

Unit III **Poetry**

1) W.B Yeats - Easter 1916
2) T.S.Eliot - The Waste Land
3) G.M Hopkins - Windhover, Gods' Grandeur
4) W.H.Auden - As I Walked out one Evening, Lullaby
5) Stephen Spender - Room Above the square
6) Dylan Thomas - Fern Hill
7) Philip Larkin - Church Going,

Unit IV **Drama**

1) G.B.Shaw - Pygmalion
2) John Osborne - Look Back in Anger

Unit V **Prose**

1) Stephen Leacock - Financial Career
2) G.K.Chesterton - On Sandals and Simplicity
3) Winston Churchill - The Dream
4) Aldous Huxley - Meditation on Moon
5) E.M.Forster - My Own Centenary
6) Bertrand Russell - On Being Modern Minded

Self-Study:

1) D.H. Lawrence - Sons and Lovers
2) Virginia Woolf - Mrs. Dalloway
3) Gerald Hopkins - Windhover
4) Stephen Leacock - Financial Career

References:
Kavanagh, P.J. (ed.).**The Oxford Book of Short Poems**
Gardner Helen. (ed.). The **New Oxford Book of English Verse**
Byrant Cullen William. (ed.). **The Illustrated Library of World Poetry**
Woodhead Chris. (ed.). **Nineteenth and Twentieth Century Verse**
Gross John. (ed.). **The Oxford Book of Essays,** Oxford University Press, 1991, New York.
Innes Christopher. **Modern British Drama** The Twentieth Century
Lodge,David, **The Art of Fiction, Illustrated From Classic and Modern Texts,** Penguin Books.
Belliappa, K.C. **"The Outsider's Perceptions of Africa: A Consideration of Joyce Cary and Joseph Conrad," Commonwealth Literature: Themes and Techniques.** P.K., K.M.George, Delhi, Ajantan Publishers, 1993. P.67-180

PSE 4408 **Structure of Modern English (SOME)** **6 Hr./4Cr.**

Students shall acquire a proper synchronic perspective of the organization of Modern English in order to become better users/teachers of English as a language. The course focuses on the phonological, morphological, and syntactical aspects of Modern English, and alternative grammars like PSG and TGG.

Objectives:

At the completion of this course the students shall be able to

i. understand the traditional approaches to language study
ii. trace the basic assumptions of modern synchronic linguistics
iii. comprehend phonetics and phonology
iv. familiarize morphology and syntax
v. conversant types of meaning

Unit 1: Language and Linguistics

Traditional approaches to language study, fallacies of traditional approaches to language study, structuralist and post-structuralist definitions of language, features of human language, and basic assumptions of modern synchronic linguistics

Unit 2: English phonetics and phonology

Organs of speech, classifications of English consonants and vowels, English phonology, IPA, phone, phoneme, and allophone, syllable and syllabification, word accent and sentence accent, rhythm and intonation, and supra-segmental features, such as assimilation, elision, and liaison

Unit 3: English morphology

Concepts of morph, morpheme, and allomorphs, braches of morphology: inflectional and derivational, word-formation and morphological analysis, morphophonemics, and outline of English morphology

Unit 4: English syntax

Principles of structural grammar, immediate constituent analysis (ICA) and its merits and demerits, Phrase Structure Grammar (PSG) and its strengths and weaknesses, Transformational Generative Grammar (TGG) and its merits and demerits

Unit 5: Semantics and pragmatics

Types of meaning: notional, referential and functional, associative, and conceptive, semantic features and roles, lexical relations, such as synonymy, antonymy, hyponymy, prototypes, homophony, homonymy, and polysemy, metonymy, and collocation; context, deixis and types, reference, anaphora, presupposition, speech acts, and politeness

References

1) Roach, Peter. **English Phonetics and Phonology: A self-Contained, comprehensive Pronunciation Course.** Cambridge: CUP, 1997
2) Chomsky, Noam. **Syntactic Structures.** Paris: Mouton, 1975.
3) Crystal, David. **Linguistics.** London: Penguin, 1980.
4) Gleason, Jr. H.A. **An Introduction to Descriptive Linguistics.** Oxford: Holt, Rinehart and Winston, Inc., 1979.
5) O'Connor, J.D. **Better English Pronunciation.** Cambridge: CUP, 2000.

PSE 4410 **English for Media (EM)** **6 Hr./4 Cr.**

This course aims at promoting fundamental instruction and practice in writing in such areas as technical communications, writing for print, broadcast and online media, advertising and public relations. Exploration of the role of mass media in today's world and its impact on our daily lives will be included in the course curriculum.

Objectives

At the completion of this course students shall learn to
Write letters to the editor, literary review and movie review
Write hard news copy in an informative and timely way
Write an online news story, including breaking news
Write a report on a image/audio clip /video clip
Write sports columns, commentary and reports

Unit 1: Report Writing - Types of report - Elements of a news report and aspects
Unit 2: Review Writing - Literature review and Movie review- letters to the editor
Unit 3: Photo Journalism - Content Writing - Blogging - Script writing - Documentary & Short films
Unit 4: Sports Journalism - Sports register - Columns - writing – Interview – Summary writing
Unit 5: Writing for commercial advertisements - Types - Elements and aspects

Independent work

Literary review, movie review and letters to the editor

References

1. Stovall, James Glen. **Writing for the Mass Media.** Eighth Edition. Boston: Allyn and Bacon. 2006.
2. Goldstein, Norm, editor. The **Associated Press Stylebook and Libel Manual.** AddisonWesley Publishing. (2009).
3. Stofer, Kathryn T et al. **Sports Journalism: An Introduction to Reporting and Writing.** Rowman & Littlefield Publishers (2009)

4. Barrow, Erik. Mass Communication: Television, Radio, Film, Press. New York:
5. OUP, 1990.
6. Sims, Norman and Mark Kramer (ed.). **Literary Journalism.** New York: Balnntinne Books, 1995.
7. Zinsser, William. **On Writing Well.** New York. Harper Collins. 2012

PSE 4412 **Literary Translations (LT)** **6 Hr./4 Cr.**

This course intends to teach translation as a skill by making the students to practically work on translating literary texts. Literary translations of all the four genres of literature will be taught and practiced

Objectives

After the completion of this course the students shall learn to

Understand and apply the theories of translation
Perceive the role of the source/target language, culture and time in using translation strategies.
Understand Cognitive pragmatics and literary translation
Translating poetry & Translating drama
Translating prose, short stories and novels

Unit 1 - Translation theories problems and techniques -Translation Norms & Text Structure - Text structures; regionalism, archaism and individual style

Unit 2 - Role of Source Language/ Target Language / Culture and time

Unit 3 - Cognitive Pragmatics and Literary translation

Unit 4 - Translating Poetry and Drama
Poetry - G. M. Hopkins - God's Grandeur
Drama - R.B. Priestly - An Inspector Calls (ACT I)

Unit 5 - Translating Prose, Short Stories and Novels
Prose - What Young India wants - Chetan Bhagat
Short Story - Somerset Maugham - The Verger
Novel - Life is What You Make it - Preeti Shenoy

Independent Work
Novel - Life is What You Make it - Preeti Shenoy
Prose - What Young India wants - Chetan Bhagat

Reference

Schulte/Biguenet. **The Craft of Translation.** University of Chicago Press. ISBN 0226048691 FLanders, Clifford E. **Literary Translation: A Practical Guide.** Multilingual Matters Limited (December 1, 2001). ISBN: 1853595195.
Steiner, George. After Babel: **Aspects of Language and Translation.** Oxford University Press, 3rd edition (May 1, 1998). ISBN: 0192880934.
Raymond Cohen. **Negotiating Across Cultures.** Washington. United States Institute of Peace Press. Third Printing. 2002. ISBN 1878379720
Susan Bassnett. **Translation Studies.** Psychology Press, 2002

PROGRAM /COURSES FRAME
PG DEPARTMENT OFPHYSICS (SF)
Program for Choice Based Credit System – 2015 - 2016

SEM	Course No	Course Name	Hours	Credits	Marks
1	PSP 4561	Mathematical Physics - I	4	4	80
1	PSP 4563	Classical Mechanics	4	4	80
1	PSP 4455	Electrodynamics	5	4	80
1	*PSP 4340/ *PSP 4341	Instrumentation /Renewable energy Physics	4	3	60
1	PSP 4497	Physics Laboratory – I	9	4	80
1	PSP4449	Analog & Physical Electronics	4	4	80
		Total	**30**	**23**	**460**
2	PSP 4562	Quantum Mechanics - I	4	4	80
2	PSP 4564	Statistical Physics	4	4	80
2	PSP 4442	Mathematical Physics - II	4	4	80
2	PSP 4446	Nuclear Physics	5	4	80
2	PSP 4498	Physics Laboratory – II	9	4	80
2	*PSP 4450/ *PSP 4451	Computational Physics /Nano Physics	4	3	60
		Total	**30**	**23**	**460**
3	PSP 5561	Quantum Mechanics –II	5	4	80
3	PSP 5563	Particle Detector and Accelerator	4	4	80
3	*PSP 5440/ *PSP 5441	Interfacing Microcontroller/Crystal growth and thin films	4	3	60
3	PSP 5455	Condensed Matter Physics-I	4	4	80
3	PSP 5497	Physics Project – I	9	3	60
3	PSP 5449	Spectroscopy	4	4	80
		Total	**30**	**22**	**440**
4	PSP 5562	High Energy Physics	5	4	80
4	PSP 5444	Digital Electronics	4	4	80
4	PSP 5456	Condensed Matter Physics - II	4	4	80
4	PSP 5498	Physics Project – II	9	3	60
4	*PSP 5560/ *PSP 5561	Matrix Optics & Fourier Optics/Statistical Optics	4	3	60
4	PSP5570	Astrophysics	4	4	80
		Total	**30**	**22**	**440**
		Grand Total for Semester I - IV	**120**	**90**	**1800**

PSP 4561 MATHEMATICAL PHYSICS - I

(5 credits and 4Hrs)

The objective of this course is to impart mathematical skills to analyze physical phenomenon, and to introduce the techniques in complex variable, special functions, Fourier series and transforms, Linear vector space and Group theory related to physics.

UNIT I: Complex Analysis

Functions of a complex variable – analytic function – Cauchy-Riemann conditions - Cauchy's integral theorem and integral formula. Taylor's and Laurent's series-Cauchy residue theorem-Residues and their evaluation- Evaluation of definite integral.

UNIT II: Matrix Analysis

Special types of matrices, Transpose, conjugate of a matrix, symmetric and antisymmentric matrices, Hermitian and skew Hermition matrices, Determinant, cofactor of a determinant. Eigen values and Eigen vectors- Cayley Hamilton Theorem- Diagonalization of matrices- Matrix representation of a linear equation.

UNIT III: Fourier series and Transforms

Sine and cosine series – Dirichlet's theorem and condition-complex form of Fourier series-application of Fourier series-properties of Fourier transform-Fourier Integral theorem-Fourier sine and cosine transform-application of Fourier transform and convolution theorem – Laplace transform.

UNIT IV: Vector Analysis

Line integral - Gauss divergence theorem - Stokes's theorem - Green's theorem - Laplace operator - repeated application of Laplace operator - linear vector space - linear dependence, basis scalar product - orthogonal basis - Gram-Schmidt orthogonalization process.

UNIT V: Tensors

Contravariant and covariant vectors - Tensors of higher ranks - algebraic operations of tensors, symmetric and antisymmetric tensors - fundamental tensor, associated tensor. Christoffel's symbol and evaluation.

TEXT :

1. Arfkan and Weber, Mathematical Methods for Physicists 5th edn, Harcourt (India) Pvt. Ltd(2001).
2. Sathya Prakash, Mathematical Physics, Sultan Chand and Sons, New Delhi, 2006.

REFERENCES:

1. Eugene Butkov, Mathematical Physics, Addison Wesley Publishing Company(1973).
2. L.A.Pipes and L.R.Harvill, Applied Mathematics for Engineers and Physicists, Mc Graw Hill Company(1970) .
3. P.K.Chattopadhyay, Mathmatical Physics, Wiley eastern limited.(1992)
4. A.W.Joshi, Matrices and Tensors in Physics. Wiley eastern limited, (1977).
5. A.W.Joshi, Elements of group theory for physicists. Wiley eastern limited.(1978).
6. G.F.Roach, Green's Functions, Introduction theory with applications, Van Nostrand Reinhold Company(1970).
7. M.Tinkham, Group theory and Quantum Mechanics, McGraw Hill Book Company (1994).

PSP 4563

CLASSICAL MECHANICS

(5 credits and 6 Hrs)

This course is design to introduce to the students the basic concepts and application of Lagrangian dynamics, Hamiltonian dynamics, small oscillations, rigid body, nonlinear dynamics. It helps the students to prepare for NET, SLET examinations

UNIT I:Lagrangian and Hamiltonian Dynamics

Constraints - generalized coordinates - Lagrange's equation for conservative and Non-conservative System-Applications ofLagrange's equation- Hamilton's principle- Lagrange's Equation from Hamilton's Principle – Lagrange's equation from variational principles – Advantages- conservation theorem -Hamilton equations of motion –Cyclic coordinates and Conservation theorems - Hamilton equations from variational Principle-The principle of Least action.

UNIT –II: The Two body Central Force Problem

Conservative central forces - Classification of Orbits-The Virial Theorem- The Kepler problem; Inverse Square law of Forces- — Rutherford scatterings -Scattering in a central force field — dynamics of the rigid body – Euler's equation of motion for a rigid body

UNIT III: Rigid body Motion

Coordinates of a rigid body- Properties of the Transformation Matrix- The Euler's Angles-The Cayley-Klein Parameters—Euler's Theorem- Finite, Infinitesimal Rotation-Angular momentum and Kinetic Energy of motion about a point-The Euler's Equations of motion-Torque- Free motion of a rigid body- Symmetric Top with one point Fixed in a uniform Gravitational Field

UNIT IV: Small oscillations and Canonical Transformations

Potential energy and equilibrium – general theory of small oscillations – vibrations of linear triatomic molecule – The Equations of canonical transformation – Examples – Poisson's brackets and Lagrange's bracket- Fundamental Jacobi's Equation for Hamilton's principal function, Hamilton's characteristic function-The Harmonic Oscillator problem-The Kepler's problem in action-angle variables

UNIT V: Non linear dynamics

Regular and chaotic motions: linear and nonlinear oscillators-phase trajectories-classification of fixed points-limit cycles-period doubling phenomena and onset of chaos in logistic map solitons: linear and non linear waves-Solitary waves-Fermi Pasta Ulam experiment-Numerical experiments of Kurskal and zabusky solutions-KdV equation (no derivation) one solution by Hirota's direct methods.

TEXT:

1) H.Goldstein, Classical Mechanics II Ed, Narosa Publication New Delhi(1989)
2) M.Lakshmanan and S.Rajesakar, Non-linear Dynamics,Springer(2003)

REFERENCES;

1) Upadyaya, Classical Mechanics, Himalayan Publishing House, New Delhi (1989).
2) N.C.Rana, P.S.Joag, Classical Mechanics, Tata McGraw Hill, New Delhi,2004
3) B.D.Gupta and Sathya Prakash, Classical Mechanics, Kethernath, Ramnath publications (2015)

PSP4455 ELECTRODYNAMICS AND PLASMA PHYSICS
(4 credits and 5 Hrs)

The purpose of the course is to provide the students with the fundamental methods to analyze and understand electromagnetic effect that arises in various types of transmission. To carry out design-related analysis of electromagnetic system devices.

UNIT I: Electrostatics and Magnetostatics

Differential form of Gauss's law – Multipole expansions – electrostatic energy – dielectric – electrical susceptibility – molecular polarisability – boundary value problems – method of images. Biot-Savart's law – Ampere's law – vector potential – magnetic sphere in an external field – magnetic shielding. Magnetic materials – magnetization – magnetic susceptibility and permeability – dia, para and antiferromagnetism – hystersis.

UNIT II: Maxwell's equation

Maxwell's equations in differential form – integral form, law of conservation of charge – fields of electric and magnetic diploes – Lorentz reciprocity theorem – wave equation for E and B

UNIT – III– Propagation of EM wave

Propagation of em waves in free space, in conducting medium, in non-conducting medium and in low pressure ionized medium Propagation through different interfaces, through rectangular wave guides – cylindrical wave guide – free space propagation - resonant cavities.

UNIT IV: Radiation of EM waves

Fields and radiation of localized source – oscillating electric dipole, magnetic dipole and quadrupole fields – centre-fed linear antenna – scattering by a sphere at short wavelengths, point charge radiation – relativistic electrodynamics.

UNIT V: Plasma Physics

Concept of plasma, concepts of temperature – Debye shielding – the plasma parameter – Criteria for Plasmas – application – motion of charged particle in electromagnetic fields – E and B uniform and non-uniform fields, time varying fields – Adiabatic invariants.

TEXT:

1. Dale Corson & Paul Lorrain, 2nd edn, Electromagnetic fields and waves, CBS Publishers, New Delhi(1988)
2. Francis F. Chen 2nd edn, Introduction to Plasma Physics and controlled Fusion (Vol I), Plenum Press, New York

REFERENCES:

1. J.H. Griffiths, 2nd edn, Introduction to electrodynamics, Prentice Hall of India, New Delhi(1997).
2. J.D.Jackson , Classical electrodynamics, John Wiley, New York(1978).
3. D.C.Agarwal 2nd edn, Fibre Optics Communication, Wheeler Publishing, New Delhi(1993).

PSP 4340 INSTRUMENTATION
(4 credits and 4 Hrs)

This course will provide students with a fundamental understanding of system design and instrumentation. It begins with foundations of measurement, which includes the first-order properties of systems. Special emphasis is laid on the practical aspects of the design systems.

UNIT I: Generalized Characteristics of Instruments

Static characteristics: Accuracy – precision-repeatability – resolution – sensitivity – linearity – drift – span – range. Dynamics characteristics: Transfer function – response of first and second order instruments to standard inputs - dead – time elements.

UNIT II: Measurement of Error

Errors : types , measurement and propagation of errors – Plotting graphs – least square fitting – Goodness of fit – chi squares fitting – need for measuring errors in physics. Coincidence measurement – true to chance ratio and chance measurement.

UNIT III: Transducers

Introduction – Classification of transducer – Potentiometer – strain gauge – thermistor – thermocouples – inductive and capacitive transducers – thermoelectric transducers – Piezo electric transducers – ionization transducers - digital transducers – electromechanically transducers – fiber optics transducers – sensors.

UNIT IV: Industrial Instrumentation

Measurement of pressure – manometers – types – pressure transducers – calibration and maintenance of pressure measuring instruments – measurement of temperature: types of low and high temperature measurements – magnetic measurement: Hall effect – magneto resistance – x-ray diffraction.

UNIT V: General measurements and signal processing

Measurement of time and energy – high and low resistance – measurement of L,C – Q meter – use of signals from detectors and associated instrumentation – input , output device – analog display and recorders – digital input and output devices – CRO types – Multimeter – counters – waveform analyzers and spectrum analyzer – signal generators – multi channel analyzer – D/A and A/D conversion.

TEXT:

1) A.K.Sawhney (2000), A Course in Electrical and Electronic Measurements and instrumentation, Dhanpat Raj & co (P) Ltd, Delhi.

REFRENCES:

1) Alan.S.Morris, Principles of Measurement and Instrumentation, Prentice Hall of India, New Delhi(1999).
2) D.V.S.Murthy, Transducers and Instruments , Prentice Hall of India, New Delhi(1995).
3) Willard and et.al, Instrumentation methods and Analysis, D.VanNostrad Inc., New Delhi(1995).
4) S.K.Singh,Industrial Instrumentation And Control , Tata McGraw Hill , New Delhi(1998).
5) W.D.Cooper and A.D.Helfrick, Electronic Instrumentation and Measurement Techniques(1990).

PSP 4341 RENEWABLE ENERGY SOURCES
(4 Hrs- 3 credits)

UNIT I Introduction

Primary and Secondary energy– commercial and non – commercial energy – renewable and non– renewable energy resources and their importance – world energy use– reserves of energy resources – energy cycle of earth – Indian energy scenario – Long term energy scenario for India – environmental aspects of utilization.

UNIT II Solar Energy

Introduction– extra terrestrial solar radiation– radiation at ground level – collectors – solar cells – application of solar energy – Biomass energy – biomass conversion – bio gas production – ethanol production – pyrolysis and gasification – direct combustion – applications.

UNIT III Wind ,Ocean and geothermal Energy

Introduction – basic theory – types of turbines – applications -Geothermal energy – Introduction – geothermal resources types – resource base– application for heating and electricity generation– Tidal energy – Introduction – origin of tides – power generation scheme – Wave energy – Introduction – basic theory – wave power devices.

UNIT IV Other Renewable Energy Sources

Introduction – open and closed OTEC cycles – biophotolysis – ocean currents – Hydropower – introduction – basic concept– site selection – types of turbine – small scale hydropower– Magneto hydrodynamics (MHD), Thermoelectric and Thermionic energy resources – basic principles – power generation – Nuclear energy – basic principle – power generation (basic ideas only).

UNIT V Chemical Energy Sources

Introduction – Fuel cells-design and principle– classification – types-advantages and disadvantages – applications – Batteries– introduction – theory– different types of batteries arrangements – classification of batteries – advantages of batteries for bulk storage – Hydrogen energy – production– electrolysis – thermochemical methods – solar energy method – hydrogen storage.

TEXT:

1. Non-Conventional Energy Sources, G.D. Rai, Khanna publishers, New Delhi,1984

REFERENCE

1. Solar Energies of Thermal Processes, A.Duffie and W.A.Beckmann, John-Wiley,1980.
2. Principle of Solar Engineering, F.Kreith and J.F.Kreider, McGraw-Hill,1978
3. Alternate Energy Sources, T.N. Veziroglu, Vol.5 and 6, McGraw –Hill,1978.
4. Solar Energy -Principles of Thermal Collection and Storage, *S P Sukhatme* and J K Nayak, Tata Mc Graw Hill.Tata, 2008

PSP 4497 LABORATORY – I
(4 credits and 9 Hrs)

The laboratory sessions are designed to reinforce the concepts and techniques presented in the lecture and also to offer the students, hands on experience with modern instrumentation and to teach good laboratory practice and work habits.

List of Experiments

1. Designing and Construction of dual power supply for OP-AMP applications.
2. Determination of the wave length, D1 & D2 lines of sodium and thickness if mica sheet using Michelson Interferometer
3. Mercury and copper arc spectra using CDS- Spectrograph – interpolation formula
4. Measuring the diameter of a circular aperture ,diameter of thin wire using Fresnel's diffraction using Laser
5. Determination of the conductivity of the material in thin films and to study its variation with temperature using four probe Method
6. Determination of plank's constant for LED
7. Fourier Transform Techniques – spatial filtering techniques
8. Workshop practice –I
9. Familiarization of Excel, Ms-office and PowerPoint
10. Construction of a square and sine waveform generator using OP-AMP
11. Designing and testing the second order low pass and high pass filter using OP-AMP
12. Construction of the astable multivibrator and study its duty cycle, LED flasher, voltage control oscillator and dielectric constant using IC 555
13. Studying the frequency modulation and demodulation using transistor and IC
14. Construction of a 2:1 and 4:1 Multiplexer using IC 7408 AND, IC 7432 OR IC 7404 gates
15. Construction of a 2:1 and 4:1 demultiplexer using IC 7404 NOT and IC 7420 NAND gates.
16. Determination of the magnetic Susceptibility of the given solution by Quincke's method and study the variation of susceptibility with concentration.
17. Identification of X- ray lines using given XRD spectrum.
18. Determination of Plank constant using LED
19. Bifringe study for KDP crystal.

PSP 4449 ANALOG AND PHYSICAL ELECTRONICS

(4 credits and 4Hrs)

This course aims to provide students with knowledge of analog circuits, OP-AMP , Linear circuit and Physical electronic devices.

UNIT I: OP-AMP linear circuits:

Basic OP AMP configuration – ideal OP AMP circuit ac, DC analysis – open loop configuration – inverting and non-inverting amplifier analysis – feed back – effect of feed back – non-linear closed loop characteristics. OP AMP frequency response

UNIT II: OP -AMP applications:

Filters: First order and second order filters – voltage comparators – Schmidt triggers, peak detectors – sample and hold circuits –Instrumentation amplifier - logarithmic amplifiers – analog multipliers – oscillators: sine wave, square wave, triangular wave and saw tooth oscillators.

UNIT III: Semi conductor theory

Mobility – conductivity – charge densities in a semiconductor – electrical properties of Ge- Si. The continuity equation. Diode characteristics – open circuit – current components – diode resistance – diode capacitances.

UNIT IV: Physics of photonic devices

Radiative and non- radiative transitions. Optical absorption, LED, LCD, CCD and 4 layer devices – photo transistors – diode lasers – and solar cell

UNIT V: Integrated circuits fabrication:

Fabrication of CMOS, NMOS, DRAM, SRAM and EPROM – hot carrier devices-fabrication of PROM electronic devices. Case examples.

TEXT:

1) J. Millman and C.Halkias , Integrated Electronics – Analog , Digital Circuits and System, Tata McGraw Hill – 2003
2) J. Millman and C.Halkias, Integrated electronics, Tata McGraw Hill – 2003

REFERENCES :

1) Ramakanth and Gayakwad A, OP AMP and integrated circuits. 3ed. Prentice hall of India PVT Ltd.. (1994).
2) Roy Choudhury, Shail Jain (reprint Linear integrated circuits. New age international (P) Ltd. Publishers(2002).
3) G.J.Deboo and C.N.Burrous, Integrated circuits and semiconductors devices, McGraw – Hill, Kogakusha.Ltd.(1977)
4) Sedra smith micro electronic circuits, 3ed OxfordUniversity press.(1991)
5) K.E Longrenn. introduction to physics electronics, Allyn and bacoxinc.Torento(1998)

PSP 4562 QUANTUM MECHANICS – I
(4credits and 4Hrs)

Objective of this course is to know the fundamental concepts in Quantum mechanics, to apply the Schrödinger wave equation to specific problem and understand the exactly solvable problems on quantum mechanics

UNIT – I Origin of the quantum theory and wave mechanical concepts

Planck's quantum hypothesis – photoelectric effect – Compton effect – Bohr model of hydrogen atom – wave nature of particle – wave pocket –time dependent of Schrodinger equation –interpretation of wave function – Eherenfest's theorem –time independent Schrodinger equation –stationary state.

UNIT – II General formalism of Quantum mechanics

Linear vector space – linear operator – Eigen function and Eigen values – Hermitian operator – postulates of quantum mechanics –simultaneous measurability of observable – Dirac notation – momentum representation

UNIT – III One Dimensional energy Eigen value problem

Square well potential with rigid walls – square well potential with finite walls – square potential barrier – linear harmonic oscillation: Schrodinger method – operator method – free particle.

UNIT – IV Three Dimensional energy eigen value problem

Particle moving in a spherically symmetric potential – rigid rotator – hydrogen atom – the free particle – three dimensional square well potential

UNIT – V Heisenberg method and angular momentum

The Heisenberg method – matrix representation of wave function – matrix representation of operator – angular momentum operator – commutation relations – eigen values and eigen function – spin angular momentum.

TEXT:

1) G.Aruldass, Quantum Mechanics, Prentice Hall of India ltd, 3rd edition(2007).

REFERENCES:

1) P.M.Mathews&K.Vengatesan, A Text Book of Quantum Mechanics, Tata McGraw Hill, New York.(Reprint 2002).
2) AjoyGhatak and Loganathan, Quantum Mechanics : Theory and Application, MacMillan , 5thedtion
3) L.I.Schiff, Quantum Mechanics, III Ed, McGraw Hill, New York(1968).
4) S R.Shankar, Principles of Quantum Mechanics, II Ed, Springer(2007)

PSP 4564

STATISTICAL PHYSICS

(4 Credits &4Hrs)

This course helps students to understand the laws involving statistical techniques & its application to physics. Various quantum statistical models are proposed & their appropriate involvement in understanding physical behavior of system of particles.

UNIT I:Quantum Statistics

System of identical indistinguishable particles –statistical ensembles - Spin symmetry of wave functions- Boson's - Pauli's exclusion principle – Fermions - Maxwell Boltzmann, Bose - Einstein & Fermi Dirac statistics – Bose - Einstein condensation.

UNIT II:Phase Transition & Transport Phenomenon

First order & Second order phase transition –ClausiusClapeyron equation –Triple point of water - Transport theory processes - Boltzmann equation in the absence of collision & with collision - Calculation of viscosity & Electrical conductivity.

UNIT III:Irreversible Processes & Fluctuations

Brownian motion - Langevin equation - Mean square displacement - Correlation functions- Fokker - Planck equation- Solution of Fokker - Planck equation- Weiner-Khinchine equations - Nyquist's theorem.

UNIT IV: Application Of Statistical Mechanics

Simple harmonic oscillator problem - Partition function & energy - An assembly of two state spins - Classical ideal gas in two dimensions - The principle of equi- partition of energy - Dilute diatomic gas with translational & rotational degrees of freedom - Thermal ionization - Saha ionization formula.

UNIT V:Ising model

Ising model-Bragg –Williams approximation-Bethe-Peierls approximation-The Ising problem and its solution for a linear chain(1-D)-formulation of 2-D Ising model-Onsagar solution-series expansion for 3-D Ising problem.

TEXT:

1. E.S.R.Gopal, 'Statistical Mechanics & Properties of Matter', The Macmillan Company of India, Delhi, (1974).

2. Statistical Physics ,Agarwal and Eisner , New Age International, (2007)

REFERENCES:

1. I.D. Landau &Lifshitz,'Statistical Physics' (part 1) III Edition, Pergamon Press, (1989).
2. F.Rief, 'Fundamental of Statistical & Thermal Physics', International Student Edition, McGrawHill, (1988)
3. K.Huang,' Statistical Mechanics', Wiley Eastern, (1988).
4. A.Lahiri 'Statistical Mechanics', Universities press, Hyderabad, (2002).
5. B.B.Laud ,Thermodynamics and statistical Physics, New Age International (P) Ltd. New Delhi (1998)

PSP 4442 MATHEMATICAL PHYSICS-II

The objective of this course is to impart mathematical skills to analyze physical phenomenon, special functions, Delta function and Green function, Bessel and Hermite function, Legendre and Laguerre's Polynomials and Group theory related to physics.

UNIT I: Beta and gamma function

Definitions - symmetry property of Beta function - Evaluation of Beta function - Transformation of Beta function - evaluation of Gamma function - transformation of Gamma function- relation between Beta and Gamma function.

UNIT II: Dirac – Delta function and Green's function

Dirac – Delta function – Three dimensional Delta function – Green's function – For one dimensional case – Symmetry property of Green's function – Eigen function – Expansion of Green's function - green's function for Poisson's equation and solution of Poisson's equation - Green's function for boundary value problems.

UNIT III: Bessel and Hermite Polynomials

Bessel function of first kind and second kind - limiting values of $J_n(x)$ - differential equations reducible to Bessel's equation - Hankel function - recurrence formulae for $J_n(x)$ - generating function for $J_n(x)$ - orthonormality of Bessel's function - Hermite polynomials – generating function - recurrence formulae - Rodrigue's formula - orthogonality of Hermite polynomials.

UNIT IV: Legendre and Laguerre's Polynomials

Legendre functions - Generating function of Legendre Polynomials - Rodrigue's formula - orthogonal property - Recurrence formulae – Associated Legendre Polynomials - Laguerre's Polynomial-generating function - Rodrigue formula - Recurrence relation-orthogonal property.

UNIT V: Group Theory

Definition and nomenclature – multiplication table – rearrangement theorem – cycle groups – sub-groups – cosets, class – normal divisors and factor groups – class multiplication. Continuous groups – SU(2) and SU(3) – orthogonal. Reducible and irreducible representation – great orthogononality theorem (no proof) – character representation – character table decomposition of reducible representation – regular representation.

TEXT :

1. Arfkan and Weber, Mathematical Methods for Physicists 5th edn, Harcourt (India) Pvt. Ltd(2001).
2. Sathya Prakash, Mathematical Physics, Sultan Chand and Sons, New Delhi(2006).

REFERENCES:

1. Eugene Butkov, Mathematical Physics, Addison Wesley Publishing Company(1973).
2. L.A.Pipes and L.R.Harvill, Applied Mathematics for Engineers and Physicists, Mc Graw Hill Company(1970) .
3. P.K.Chattopadhyay, Mathmatical Physics, Wiley eastern limited. (1992)
4. A.W.Joshi, (1977) Matrices and Tensors in Physics. Wiley eastern limited, (1977).
5. A.W.Joshi, Elements of group theory for physicists. Wiley eastern limited. (1978).
6. G.F.Roach, Green's Functions, Introduction theory with applications, Van Nostrand Reinhold Company(1970).
7. M.Tinkham, Group theory and Quantum Mechanics, Mc Graw Hill Book Company (1994)

PSP4446 NUCLEAR PHYSICS

(4 credits and 5 Hrs)

The aim of the course is to provide an overview in the fields of nuclear and particle physics. The course deals with models of Nuclei, Radioactivity, Nuclear reactions and Particle Physics.

UNIT I: Nuclear forces and its Properties

Binding energy - Nuclear moments - electric and magnetic moments - The Schmidt model. Nuclear forces: short range forces - exchange forces - Meson theory of nuclear forces - Low energy nucleon-nucleon scattering - effective range theory - spin dependence of neutron - proton scattering - simple considerations of deuteron.

UNIT II: Models of Nuclei

Fermi gas model - Liquid drop model - Semi-empirical mass formula - Magic numbers - Nuclear shell model - Collective model - Optical model.

UNIT III: Radioactivity

Alpha decay - Gamow's theory of alpha decay - alpha particle energy spectrum - Geiger-Nuttal law. Beta decay- Fermi 's theory - parity violation in beta decay - K –electron capture - Gamma decay - selection rules for multipole radiation - Internal conversion.

UNIT IV: Nuclear Reaction and Reactor Physics.

Reaction energetics: Q- value - Nuclear reaction cross section - Partial wave analysis of reaction cross – section-Compound nucleus theory-Resonance Scattering: Breit-Wigner dispersion formula- The optical theory. Nuclear chain reaction- Four factor formula-classification of reactors.

UNIT V: Sub- Nuclear Physics

Proliferation of elementary physics- classification of elementary Particles and their reactions- basic ideas of interactions-short-lived resonance states-Gell-mann-Okuba mass formula- Quark model-discovery of heavier quarks-colour degree of freedom

TEXT:

1.H.A. Enge- Nuclear Physics, Addison Wesley Pub. Co, London(1969)
2.D.C.Tayal, Nuclear Physics, Himalaya Publishing house, New Delhi (1995)

REFERENCES:

1. Satya Prakash, Nuclear Physics & Particle Physics, Sultan Chand & Sons Publ, New Delhi.
2. R.C. Sharma, Nuclear Physics, Wily Eastern Ltd, New Delhi.(1980)
3. M.P.Khanna, Introduction to Particle Physics, Prentice Hall of India. Pvt Ltd.(1999)
4. V.Devanathan, Nuclear Physics, Narosha Publishing House, New Delhi (2006).

PSP 4498 LABORATORY – II

(4 credits and 9 Hrs)

The laboratory sessions are designed to reinforce the concepts and techniques presented in the lecture and also to offer the students, hands on experience with modern instrumentation and to teach good laboratory practice and work habits.

List of Experiments

1. Finding the thickness of mica sheet using channeled spectrum
2. Studying the characteristics of a GM counter and determination 15-17 of its operating voltage, plateau length / slope
3. Studying the hall effect in semiconductor and to determine the hall voltage, hall co-efficient and hall angle
4. Recording the superposed spectra of mercury and the given mixture of salts to determine the line spectra by Hartmann's interpolation formula - CDS
5. Workshop practice –II
6. Determination of the velocity of ultrasonic waves in the given liquid at different temperature using ultrasonic interferometer
7. Studying the microwave components and set up a microwave bench and also find frequency and wavelength from a given microwave source (Waveguide law Verification)
8. Programmes using MathCAD
9. Constructing the D/A converter using op –amp by binary weighted resistor, R-2R ladder network and using IC DAC 0800.
10. Constructing and studying the 4 bit up down counter using IC 7476.
11. Designing the instrumentation amplifier using IC 741
12. PCB design software usage
13. Calculation of the charge of an electron using Spectrometer

14. Designing the analog computation using Op-amp
15. Determination of the e/m using Millikan oil drop method.
16. Determination of the elastics constants – Elliptical and Hyperbolic Fringes
17. Determination of Band gap of a thermister
18. SCR characteristics and power control.
19. Solution of simultaneous equations using IC 741

PSP 4450 Computational Physics and Data analysis
(4 Credit and 5Hrs)

This course introduces students to the numerical methods for solving algebraic, differential and matrix equations and its applications in physics. It also focuses on the usage of MathCAD and C++ as an aid for understanding real physical systems and to learn efficient methods for the analysis of these systems. Assessment and quiz components of the continuous assessment are assessed based on the student's performance of the lab-exercises.

UNIT I: Solving Algebraic Equations

Roots of polynomial and transcendental equations bisection, successive approximation – regula falsi: Newton - Raphson method. Interpolation: Equally spaced points - Newton's forward interpolation – divided difference. Unequally spaced points – Lagrange's interpolation: Curve – fitting: Linear, Polynomial & Exponential.

UNIT II: Numerical differential, Integration and matrix equations

Solving a set of simultaneous linear equations: Gauss elimination - Gauss - Seidal,Solving differential equations: Euler's method, Runge - Kutta method, Eigen value problem: Gauss – Jordan,Power method, Numerical integration: Trapezoidal, Simpson's method , Gaussian quadrature method.

UNIT III: Object Oriented Programming (OOP)

Introduction to OOPs – Features of OOPs – Applications. C++: Data types – scopes – Operators – Operator overloading – Functions – Objects and classes – array - pointers– Member functions – Friend functions – Function overloading – In – line functions – Inheritance- types – File operations and streams- introduction to graphics

UNIT IV: Programming Using C++

Developing Algorithm and Programming to solve: Algebraic equations, Differential equations, Matrix equation and Simulation of classical and quantum phenomena.

UNIT V: Using MathCAD

Elements of MathCAD – Solving algebraic equations – Differential equations, Matrix equations and Eigen value problem – FFT - Variational method – Simulation of classical and quantum phenomena.

TEXT:

1. E. Balagurusamy, "Object Oriented Programming with C++", Tata McGraw Hill, (2003
2. M.K.Jain, S.R.K.Iyengar and R.K.Jain, "Numerical Methods", New Age Int, (2002).
3. MathCAD.7User's Guide, MathCAD.7 Pub.Company, (1996).

REFERENCES:

1. H.Schildt,C++, the complete reference, Tata McGraw Hill, New Delhi, (1997).
2. Suresh Chandra, "Computer Applications in Physics" 2 Ed; Narosa Pub.

PSP 4451 NANO PHYSICS

(4 credits and 4 Hrs)

This course introduces the basic concepts of the Nano particle, Nano structure and its biological applications.

UNIT I: Nano particle and methods of measuring

Properties: Nano particles-Nano clusters-semiconducting nanoparticles; Methods of synthesis: RF plasma- chemical methods-Thermolysis – Pulsed Laser methods-Microscopy-spectroscopy-particle size determination.

UNIT II: Nano Structures

Carbon nanostructures-Carbon clusters-Fullerenes-Carbon nanotubes-Nano computers-Porous silicon- Photonic Crystals- nanomagnets-Giant and colossal Magnetoresistance

UNIT III: Quantum Wells, Wires and Dots:

Preparation of quantum Nanostructure- Size and dimensionality effects – Excitons- Single-Electron Tunnelling-Applications- Superconductivity; Self-Assembly: Process of self Assembly- semiconductor islands- Monolayers.

UNIT IV: Biological Nanostructure

Polymers – Conducting Polymers- Copolymers; Supramolecular structures-Dendrimers-Micelles;Biological Nanostructure building blocks-Polypeptide nanowire-Protein nanoparticles- DNA double nanowire- Micelles and vesicles-Multilayer films.

UNIT V Nanomachines and Nanodevices

Nanomachines and nanodevices: MEMSs-NEMSs-Molecular and supramolecular switches.

TEXT:

1. Charles P. Poole Jr, Frank J. Owens, Introduction to Nanotechnology, Wiley Students Edition(2007).

REFERENCES:

1. Huozhong Gao, Nano structures & Nanomaterials, Imperial College press (2004)
2. Hohn H. Davies, The Physics of low dimensional semiconductors, Cambridge University Press (1998)
3. Richard Booker & Earl Baysen, Nano Technology, Wiley (2005)

POSTGRADUATE DEPARTMENT OF ENVIRONMENTAL SCIENCE

PROPOSED COURSE STRUCTURE
&
COURSE DETAILS (2015-16) ONWARDS

Vision statement

To provide opportunities for students to learn and apply knowledge, skills and abilities in diverse practical settings. Students will develop a sense of community responsibility by becoming aware of scientific issues in the larger social context.

Mission statement

To provide academic experience, of thinking, learning and doing, and to impart education through rigorous interdisciplinary approach.

POSTGRADUATE DEPARTMENT OF ENVIRONMENTAL SCIENCE

PROPOSED COURSE STRUCTURE
&
COURSE DETAILS (2015-16) ONWARDS

Semester	Course Code	Course Title	Hours	Credits	Marks
I	PES 4401	Fundamentals of Environmental	6	4	80
	PES 4403	Biology	5	4	80
	PES 4405	Non-conventional Energy Sources	5	4	80
	PES 4407	Environmental Chemistry	5	4	80
	PES 4409	Environmental Biology Lab	5	4	80
		Environmental Chemistry Lab	4	2	40
	PES 4201	**Elective:**			
	PES 4203	Water and Waste Water Management Environmental Health and Human Rights			
		TOTAL	30	22	440
II	PES 4402	Environmental Pollution and Control	5	4	80
	PES 4404	Environmental Toxicology and Risk Management	6	4	80
	PES 4406	Disaster Management	6	4	80
	PES 4408	Environmental Toxicology Lab	5	4	80
	PES 4410	Health and Environment Lab	5	4	80
		Elective:	3	2	40
	PES 4202	Restoration Ecology			
	PES 4204	Biodiversity Conservation			
		TOTAL	30	22	440
III	PES 5401	Solid Waste Management	5	4	80
	PES 5403	Remote Sensing and GIS	6	4	80
	PES 5405	Environmental Physics	5	4	80
	PES 5407	Environmental Statistics and CA	5	4	80
	PES 5409	GIS Lab	5	4	80
		Elective:	4	4	80
	PES 5411	Ecology and Sustainable			
	PES 5413	Development Environmental Degradation and Amelioration			
		TOTAL	30	24	480
IV	PES 5402	Green Technology	4	4	80
	PES 5404	Field Study	6	4	80
	PES 5806	Project Work	10	8	160
	PES 5608	Industrial Training	10	6	120
		Total	30	22	440
		Grand Total	120	90	1800

PES 4401 Fundamentals of Environmental Biology 6Hrs/4Cr

To expose students to the basic principles of the environmental sciences. This course will enable students to acquire a broad understanding about the diversity together with structure and function of various tropical ecosystem. Students will be able to acquire knowledge and understanding of the fundamental, applied concepts in environmental sciences. To make students to possess a sense of environmental stewardship.

Unit 1: Environmental Biology Concepts and Scope

Biosphere as an ecosystem, its ecological processes and life support systems. - (including Flora, Fauna, soil, climate, atmosphere, terrestrial and aquatic ecosystems). Ecosystems: concept, components and functioning - Energy Fixation (photosynthesis and chemosynthesis) and energy flow through food chains (grazing and detrital) and webs -Ecological efficiencies and pyramids. Trophic levels - Influence of environmental factors (including temperature, light, moisture, soil, nutrients) on organisms and their adaptations in response to them. Liebig's Law of the Minimum and Shelford's Law of Tolerance.

Unit 2: Ecology of Populations and Communities

(a) Population Ecology: Factors determining the abundance and distribution of a species - Factors leading to the commonness, rarity and vulnerability of extinction of a species - Population Dynamics:Patterns of survival, age distribution, dispersal and rates of change - Attributes of K- selected and r-selected species - Population Growth.

(b) Community Ecology: Competition, Exploitation (including herbivory, predation, parasitism), Mutualism (including commensalism, cooperation, symbiosis) - Food webs and concepts of niche and keystone species - Nutrient cycling and retention - Biogeochemical cycles - Succession, development, climax and stability of ecosystems

Unit 3: Introduction to Plant and Animal Behaviour

Feeding Behaviour: Herbivores, Carnivores, Parasites, Saprophytes. Response of prey / plants (deterrence, defence, reward). - Animal Architecture and use of tools - Circadian and other rhythms - Genotype and phenotype of behaviour - Ethology and socio-biology: Insect and vertebrate societies - associations.

Unit 4: Terrestrial Biomes and Marine Biomes

Climatic and edaphic factors of terrestrial biomes - Heinrich Walter's Biome Climate Diagrams - Classification of land biomes with their soil, climate and vegetation characteristics - their natural history, wildlife, geography and human influences. Mountain Biome: Replication of latitudinal changes in the altitudes of high mountains. Terrestrial biomes, ecosystem diversity, forest and vegetation types in India and management strategies - Challenges and adaptations of life in aquatic biomes (freshwater: still and flowing, marine). Freshwater Biomes (Rivers, streams, lakes, ponds) and their natural history Marine Biomes (including mangroves, coral islands, kelp forests, saltwater marshes, seashores, estuaries) and their natural history - wetlands – definitions, types, ecological functions and resources.

Unit 5: Biogeography & Biological Diversity: India & World

Continental Drift: Its causes and consequences for distribution of life on earth - India's biogeographical history, current geographical position and their impact on biodiversity - India's faunal regions, forest and vegetation types and Protected Area Network - conservation initiatives at Governmental and NGO level in India and the world - classification of microbes and their metabolism and ecology - microorganisms and their association with man , animals

and plants - role of microbes in bioremedial processes, ecological restoration and other environmental applications - environmental factors affecting microbes, their cultivation and growth.

Text Books :

1. Eugene P.Odum, Gray W. Barette, (2005), Fundamental of Ecology, 5th edition, Thompson
1. Asia pvt. Ltd., Singapore. ISBN – 981 – 252 – 969 - 2
2. Linton, A. H. and Burns, R.G. (1982). Microbes, Man and Animals : The Natural History of Microbial Interactions :, John Wiley and Sons.
3. Pelczar, M.J. and Chan ECS, (1981). Elements of Microbiology : Mc Graw Hill.
4. Stainer, R.Y.., Adelberg, E.A. and Ingraham, J.L.(1977). General Microbiology :. Macmillan Press.
5. Kathiresan (1986). Essentials of forest management, Natraj Publishers, Dehradun.

Reference Books:

1. Gaudy, A.F. and Guady, E.T. (1980). Microbiological Methods for Environmental Scientists and Enginners :, Mc Graw Hill.
2. Innes, J.L and Tikina A. (2014). Sustainable forest management: From principles to practice, Earthscan publications, London.

PES 4403 Non-conventional Energy Sources 5Hrs/4Cr

The objective of this subject is to enable the students to understand the principle of conversion of solar energy into thermal and electrical energy. This course gives exposure to various types of non conventional energy sources, power generation from these energy sources and the various methods of energy storage.

Unit 1: Renewable Energy Sources

Introduction – different forms of energy - commercial resources – non-commercial resources – demand forecast – coal electricity (power, hydro electric power systems, thermal power, nuclear power) oil and natural gas– sources of renewable energy, Solar energy – direct and indirect form of solar energy - geothermal energy .

Unit 2: Solar Energy

Thermal conversion – collection and storage – thermal applications – photovoltaic conversion – Solar Radiation – Solar Radiation Outside the Earth's Atmosphere – Solar Radiation at the Earth's surface - instruments for Measuring Solar Radiation and sunshine – Solar Radiation Data, Solar Cookers, Liquid Flat-plate collectors, Solar Air Heaters, Concentrating collectors, Thermal Energy storage solar pond, solar passive architecture.

Unit 3: Biomass Energy

Definition - Desirable characteristics – Sources and types – Photosynthesis – Energy farming – Energy plantation – Energy forestry - Aquatic biomass, Biofuels, Petro crops, Agricultural and forest residues and wastes – Biomass conversion Technologies - Thermo chemical – pyrolysis – gasification – Hydrogasifcation – Biomass gasifiers – agro industrial applications. Alcohol Fermentation – Methane fermentation – Applications of biogas

Unit 4: Wind, Ocean and Geothermal Energy

Wind energy – site characteristics - type of wind mills - small machines – Large machines – The Mangnus Effect – The Madras Rotor Wind Machines – The Darrieus Machines – Other Wind Turbine, Design advantage and disadvantage - The Energy from Ocean – ocean temperature differences - Open & Closed OTEC system - energy & power from waves using floats - single pool and modulated single pool tidal systems -Geothermal energy – vapour and liquid dominated systems - Petrothermal Systems - Advantages and disadvantages of Geothermal energy

Unit 5: Energy Storage and Conservation

Solar energy storage – thermal storage- electrical storage – chemical storage – mechanical storage – storage of energy in solar pond and its extraction – Energy Auditing – Introduction, Definition, Energy Auditing sources, Economic analysis, cogeneration, Heat Transfer, Audit Equipments - Energy Conservation and Management – Energy requirement in future distribution of energy consumption, Need for energy conservation Methods of Energy conservation, Energy Management techniques.

Text Books:

1. G.D. Rai, (1998). Non-conventional Energy source, Khanna Publication NAI Sarak – Delhi
2. S.P. Sukhatme, (2004). Solar energy principles of thermal collection and storage, 2nd Edition, Mc Graw Hill Publications, New Delhi.
3. G. D. Rai, (1996). Solar Energy Utilizations, Khanna publication.

Reference Books:

1. G. N. Tiwari (2004). Solar Energy, Fundamentals, Design , Modeling and Applications, ,Narosa Publishing House, New Delhi.
2. Arora – Domkundwar (1998). A course in Power Plant Engineering. Dharapar Rai & Co., P.Ltd, Educational and Technical Publishers, Delhi, Revised and Enlarged Edition.
3. W.R. Murphy and G. Mukay Bullerworth (1982). Energy Management.
4. Larry L Anderson & David A Tilman (1977). Fuels from Wastes, Energy Science & Engineering Resources Technology Management , Academic Press New York.

PES 4405 Environmental Chemistry 5Hrs/4Cr

The purpose of this course is to strengthen the awareness of the students on the chemical origin of certain environmental problems. Attention will be paid for understanding chemical equilibrium and kinetics of natural systems and how they are influenced by human actions. Moreover the course will introduce the chemical processes that regulate the composition of air, water and soil properties.

Unit 1: Environmental Chemistry - A Global Perspective

Concept and scope of environmental chemistry-nomenclature-environmental segments-natural cycles of the environment-hydrological cycle-oxygen cycle-nitrogen cycle-phosphate cycle-sulfur cycle-environmental composition-aqueous solutions-solids-gases-species distribution-anthropogenic effects-composition of atmosphere-structure.

Unit 2: Stratospheric Chemistry
Particles, ions and radicals in the atmosphere-chemical and photochemical reactions in the atmosphere-oxygen and ozone chemistry-formation and turn over of ozone-ozone hole-reactions involving free radicals-chlorine oxide cycle-CFC-anthropenic sources of chlorine-sulfurdioxide-nitric oxides-green house effect and global warming.

Unit 3: Tropospheric Chemistry
Smog-photochemical smog-the chemistry of hydroxyl radical production-PAN formation reactions-nature of photochemical smog-volatile organic compounds-aromatics-composition of rain-acid rain-atmospheric production of nitric acid-day time and night time chemistry-sources and sinks-control of anthropogenic nitrogen and sulfur emission-fluidisied bed combustion-inorganic particulate matters.

Unit 4: Hydrospheric Chemistry
Physical and chemical properties of water-sea water-composition-acid-base properties-redox properties-pH-pE-microbially mediated redox reactions-humic materials-formation-structure-IR and NMR spectral studies-reactions with small organic molecules-complexation in natural and waste water-metal complexes with ligands of anthropogenic origin-biochemical effects of As,Cd,Pb,Hg,Se and Al.

Unit 5: Analytical Techniques and Methodology
Air samples and sampling-analysis of CO,NO,SO2 and H2S-hydrocarbons from petrol and air-spectrophotometric analysis of pollutants-water quality parameters-standards-sampling-monitoring pH-specific conductance-D.O-ammonia-chlorine-total hardness-determination of Cd,Cr,Cu,Pb and tannin

Text Books:
1. Stanley. E (1978). Environmental Chemistry,. Manaban Williard Grant Press. Boston, Masachusetts
2. Merril Elsenbud (1996). Environmental Radioactivity, Academic Press.

Reference Books:
1. Gary W. VanLoon and Stephen J. Duffy (2004). Environmental Chemistry, 2nd Edition, Oxford University Press, New York.
2. Anil Kumar (2000). Environmental Chemistry, 4th Edition, New age international (P) limited,New Delhi
3. Anubha Kaushik and C.P.Kaushik (2009). Perspectives in Environmental Studies, 3rd Edition,New age international publishers, New Delhi

PES 4407 **Environmental Biology Lab** **5Hrs/4Cr**

Students will be taught to analyse, synthesize and evaluate experimental data and information objectively. Moreover the course will make the students to acquire knowledge on applied concepts in environmental sciences.

1. Sampling methods for physiochemical and biological analysis
2. Zooplankton – collection of samples, identification, estimation of biomass
3. Vegetation studies by line and belt transact method and their analysis
4. Estimation of Grassland and Forest animal population (seen) by quadrate method
5. Study of wetland flora and fauna

6. Pollution Indicators – Collection, identification, documentation and preparation of slides
7. Benthic macro invertebrates – sampling, collection, identification.
8. Evaluation of hydrologic parameters; catchment delineation and water balance
9. Visit to aquatic ecosystem and collection of water and plankton samples for quality and productivity studies
10. Preparation of Agar - Agar media for microbial culture from soil, water and air and their Identification

Reference Books:

1. Cunningham, W.P. and Saigo, B.W (1999). Environmental sciences, Mc Graw-Hill Companies, New York.
2. Sharma, P.D., (1993). Environmental Biology, Rastogi publication, Meerut.
3. Subramanyam, N.S. and Sambamurthy, A.V.S.S. (2000) Ecology, naraosa publishing House Delhi.
4. Grainer, J.M. and Lynch, J.M. (1984). Microbial Methods for Environmental Biotechnology,Academic Press.
5. Ricci, P and Rowe, M.D., (1985). Health and Environmental Risk Assessment, Pergamon Press, New York.

PES 4409 Environmental Chemistry Lab 5Hrs/4Cr

This course will enable students to develop an understanding of chemicals and their effects on the environment. To make students to learn basic chemical content in context. It also ensure students to develop new analytical methods to detect various hazardous wastes in the environment.

1. Estimation of total hardness of water
2. Determination of physical parameters of well, effluent, river and sea water.
3. Determination of TDS in lake water
4. Analysis of salinity of water
5. Determination of residual chlorine in drinking water
6. Determination of D.O by Winkler's method
7. Determination of total organic matter of the soil
8. Determination of water holding capacity of the soil
9. Detection of halogens, nitrogen and sulphur in organic compounds
10. Determination of tannin form tannery effluent
11. Determination of air samples by IR spectrophotometric method
12. Determination of metal ions by Cyclic Voltametric method
13. Measurement of O_3

Reference Books:

1. F. G. Mann and B. C. Saunders .Practical Organic Chemistry by, 4th Edition, Orient Longman Publishers.
2. Egon Staphi (1969). Thin Layer Chromatography – A Laboratory Handbook, 2nd Edition George Allen & Unvin. Ltd London.
3. Erich Heftmann. Chromatography ,Vad Nostrand Reinhold Company.
4. Bessett. J. (1978). Vogel's text book of quantitative analysis ELBS, Longmann group.
5. Ricci, P and Rowe, M.D., (1985). Health and Environmental Risk Assessment, Pergamon Press, New York.

PES 4201 Water and Waste Water Management 4Hrs/2Cr

To introduce the students to the area of water and waste water treatment and management practices. This course will cover water chemistry and waste water treatment. Students will be exposed to a working knowledge of the water and waste water industry and to have the skills to perform a preliminary design of a treatment plant. The course will highlight the importance of water and demonstrate integrated treatment processes and recycling of water suitable for irrigation.

Unit 1: Water Management:
Water Requirements for Domestic Consumption. Population forecasting by the following methods. Demographic method, Arithmetical progression method, Geometrical progression method, Logistic methods, Graphical projection method, Final prediction. Quality of water required for followings. (a) Domestic, (b) Institutional (Schools, Hostels, Hospitals), (c) Fire fighting, (d) Commercial (Shopping complex, Hotels, Restaurant),(e) Industrial (Dairy, Sugar, Pulp and Paper, etc.) (f) Specific requirement at pilgrimage place and recreation activities.

Unit 2: Water Sources
Impact of future growth and development and change in quality of life on water requirement - Types of solid in water and their impact on water quality - Need of water quality standards for domestic & industrial purpose - Specifications for drinking water (physical, chemical & bacteriological) by Bureau of Indian Standards & World Health Organization. Packaged drinking water - Water Sources – Availability & quality of Surface water (River, stream lake, dam) & Ground water (Open well & Bore well)

Unit 3: Water Treatment
Principal, Application & Designing of following Unit Operation in water treatment - Collection & pumping – Aeration – flocculation – Sedimentation – Filtration - Disinfections (Chlorination, UV, Ozonization) - water softening Advance treatment methods e.g. a. Demineralization - Ultra filtration - Reverse osmosis - Color & odor removal by activated carbon - Iron removal - Inter-relations between water source, quality of raw water, solids in water & treatment process - Selection of appropriate unit operations for the treatment and flow chart of water treatment plant.

Unit 4: Wastewater Processing for Preliminary & Primary Treatment:
Quantity & Quality of sewage generated, Impact of Future growth & development & change in quality of life on sewage quality & quantity - Specification of treated wastewater for disposal into surface water - on land & for treatment - Collection & pumping Screen chamber - Grit chamber - Oil & grease removal - Dissolve air floatation - Wastewater engineering for Biological Treatment : Principal, role of microorganisms - ecosystem & designing of following biological Unit Operation in waste water treatment - Stabilization pond - Aerated lagoon - Activated sludge process - Trickling filter - Anaerobic treatment - Industrial Wastewater: Selection of appropriate unit operations for the treatment and flow chart of wastewater treatment plant for – Dairy - Pulp & Paper - Galvanizing.

Unit 5: Biotechnology & Waste Water Management
Application of biotechnology for the Treatment of followings: High strength waste e.g. whey & spent wash - Primary & secondary sludge - Phenol & cyanide removal - Different model of anaerobic digestion by combination of attached & suspended growth.

Text Books:

1. Met Calf & Eddy .Waste Water Engineering, Tata McGraw Hill.
2. Webber W. J. Physico-Chemical; Process of water quality control, Wiley Inter-science.
3. Arceivala .Waste Water Treatment for Pollution Control, Tata McGraw Hill.
4. Birdie G. S. Water supply & sanitary engineering, Dhanpat Rai & Sons, New Delhi.

Reference Books:

1. Lidgren H., House waste management in Europe, A Bridgestone Van Nostard Reinfold Pub.,Co. London.
2. Tebbut. Principal of Water Quality Control, Pergamon press.
3. Waste Water Treatment plant Design, (1977). A manual of practice, Water pollution control federation
4. Manual on sewerage & sewage treatment, Ministry of works & housing, New Delhi.

PES 4203 Environmental Health & Human Rights 4Hrs/2Cr

To make the students aware of the different facets of the linkages between environmental health and human rights. Throughout the course, students will emerge in case studies like national, regional and international courts of law on the relevant topics. Students will be taught to identify and define the steps in the risk assessment and risk management processes.

Unit 1: Social Issues and Environment

From unsustainable to sustainable environment-urban problems related to energy-water conservation-rain water harvesting- resettlement and rehabilitation issues-policies and its concern-environmental ethics-issues and possible solution-waste land reclamation-practices consumerism and waste products.

Unit 2: Human Population and Environment

Population growth-variations among nations-population explosion-family welfare program-environment and health-human rights-value education-HIV/AIDS-women and child welfare-role of IT in environment and human health-data base on environment and health.

Unit 3: Environmental Movements in India

Movement related to environment Sacred grooves, Chipko movement, Tehridam, Narmada dam, Almatti dam, Silent valley and Sardar Sarovar - Supreme court cases-Ratlam municipality, Ganga action plan, Taj trapezium,Tamil Nadu tanneries, Doon valley Oleum gas case.

Unit 4: Regulatory Practices-I

Objectives and provisions of Acts and Rules-environmental legislation production act-Air(prevention and control of Pollution) Act 1981-Water (Prevention and Control of Pollution) Act 1974-Wild life protection Act 1972-forest conservation Act 1980- Noise pollution (Regulation and Control) Rules,2000-role of international environmental agencies-UNEP,GEF,UNFCC and IPCC .

Unit 5: Regulatory Practices-II

Bio-medicals Waste (management and Handling) Rules1998- Plastics Manufacture and Usage Rules-1999-Municipal solid waste (management and Handling) Rules 2000-The hazardous wastes management, handling - Rules2008-National green tribunal Act-E-Waste management and handling Rules 2011-Plastic manufacture, sale and usage Rules 2011-Coastal Regulation Zones (CRZ) Rules 201-Public liability insurance Act 1991.

Text Books:

1) Rowland and Paul Cooper (1983). Environment and Health, Edward Arnold Publishers Ltd.
2) Jain and Sunil S Rao (2006). Industrial Safety , Health and Environment Management Systems, Khanna publishers, New Delhi
3) Slote L (2001). Handbook of Occupational Safety and Health, John Willey and Sons, New York
4) Gurdip Singh (2005). Environmental Law in India, Macmillan India Ltd, New Delhi
5) Bala Krishnamoorthy (2005). Environmental Management, Prentice Hall of India Private Limited, New Delhi
6) Agarwal SK (1997). Environmental Issues and themes, APH Publishing Corporation, New Delhi.

Reference Books:

1) Bill Taylor (2005). Effective Environmental, Health, and Safety Management Using the Team Approach, A John Wiley and Sons Inc., Publications.
2) Lawrence B. Cahill, Raymond W. Kane (2011). Environmentral Health And Safety Audits, 9th Edition, Rowman and Little field Publishing Group., Inc., The Scarecrow Press.

PES 4402 Environmental Pollution and Control 5Hrs/ 4Cr

The objective of this subject is to enable the students to know about various types of pollution, their sources and their impact on environment and human. This course gives exposure to the control measures of various pollution, and apply basic concepts in biology and ecology to current environmental issues.

Unit 1: Air Pollution

Air pollution – Sources – classification - effects of air pollutants on plants, animals and humans. Wet and dry deposition - acid rain - ozone depletion - green house effects and global warming. Air quality emission standards - control measure- monitoring techniques of gaseous and particulate matters - Air pollution disasters

Unit 2: Water Pollution

Water Quality Parameters – DO, BOD, COD, acidity, alkalinity, total dissolved solids, total hardness, salinity, drinking water quality standards. Water pollution - Classification, types and sources. Various pollutants – biological pollutants - inorganic, organic, heavy metals, pesticides and radioactive pollutants. Effluent standards. Ground water and surface water pollution - sources and effects. Characteristics of domestic wastes and agricultural wastes. Eutrophication – algal bloom, effects of algal bloom. Pollution control – technology option - Waste water treatment, waste water disposal and reuse, stabilization of ecosystem, pollution control through law and regulations.

Unit 3: Soil Pollution

Soil – Formation of soil, weathering and agencies of soil formation, soil profile development. Soil Pollution – Sources – Industrial wastes, urban and domestic wastes, radioactive pollutants, agrochemicals, chemical and metallic pollutants, biological agents and acid rain. Effects – Control- indicators of soil pollution.

Unit 4: Noise Pollution

Noise Pollution – Sources and classification, noise pollution hazards – auditory effects, communication interference, sleep interference, performance, behavior and annoyance. Control measures of noise pollution

Unit 5: Marine and Thermal Pollution

Marine Pollution – Types, sources, hazard materials, radioactive materials and oil pollution. Oil pollution - sources, oil spill, slick and dispersants, oil spill disasters, and effects on marine organisms. Specifications for the disposal of sewage and industrial wastes into the sea, shipping pollution - disposal of sewage and waste water from cargo and ships. Pollution due to off shore drilling, deep mining and oil extraction. Thermal pollution – Sources and effects – control methods.

Text Books:

1. C.S.Rao, (2007). Environmental Pollution and control, New Age International, New Delhi
2. C.Stern, Henry C. Wohlers, (1973). "Fundamentals of Air pollution" Academic Press, New York

Reference Books:

1. BSN Raju, (1997). Fundamentals of air pollution, Oxford press, New Delhi
2. Howard S. Peavy, Donald R. Rowe and George (1985).Environmental Engineering McGraw Hill Book Co, New York
3. Stanley E. Manahan, (1997). "Environmental Science and Technology" CRC Press, USA.
4. Lawrence K .Wang, Norman C Pereira, (2004). 'Airpollution Control Engineering" Springer Science and Business Media, NY
5. Jain and Sunil S Rao (2006). Industrial Safety , Health and Environment Management Systems, Khanna publishers, New Delhi

PES 4404 Environmental Toxicology and Risk Management 6Hrs/4Cr

The purpose of this course is to introduce the fundamental and critique aspects of human and environmental toxicology, and applications in both environment and workplaces. The course is designed to provide the students with the concepts of toxicology terminology, toxicokinetics, metabolism, carcinogenesis, and system toxicity. The course also covers the basics of human health and ecological risk assessment.

Unit 1: Toxicity Testing

Toxicology - Definitions, Classification, Origin and General Nature of Toxicants in Environment. Basic Probit analysis, concepts – Toxicants – Toxicity, Acute, sub acute, chronic, dose effect, LD 50, LC 50 and response safe limits. Dose response relationship, graphs, concentration response relationship, Safe Limits. Biological, chemical Factors that influence. Influence of route of administration abnormal response to chemicals; basis of selective toxicity; laboratory determination of toxicity of chemicals.

Unit 2: Pest & Pesticides

Pest – Pesticides – Classification of pesticides – Pest surveillance, resistance, residual effects, toxic effects of insecticides and on man and mammals. Metals -Toxicity, Properties, occurrence, Production, Industrial uses, Metabolism, Physiology, Toxicology, Prophylaxis and Therapy - Aluminium, arsenic, cadmium, chromium, lead and mercury. Biotransformation – Molecular mode of action – Aromatic compounds, Alcoholics, Phenolics and heavy metals. Toxicity Testing Methods – Microbiol, algal, invertebrates and alternative toxicity tests. Mutagenesis and carcinogenesis -case studies.

Unit 3: Impacts of Environmental Contaminants

Chlorinated xenobiotics in environment – Bioconcentrations –Volatilization – Biological and nonbiological degradations, Detoxification. Chlorinated organics in environment and their fate. Short chained chlorinated hydrocarbons – Toxicity – Ecotoxicological relevants and degradation. PCB – Dioxins levels, fate, toxicity and their global distribution. Toxaphene – occurrence and degradation. Environmental risk assessments - Biomonitoring - Bioindicators -Environmental specimen banking.

Unit 4: Toxicants and Biological Systems

Bioaccumulation – Bioconcentration – Biomagnifications – mechanisms in biota – Significant influence, mechanisms and Kinetics of Bioconcentration. Cellular response to chemical stress – membrane process; intracellular fate of chemicals, cell receptors, cell injury and apoptosis. Endocrine disruption - Long - term impact of chemicals in aquatic organisms, soil invertebrates and Avian species.

Unit 5: Industrial Toxicology

Industrial Disasters and Pollution -remedial measures – Epidemiological issues goiter, fluorosis, arsenic poisoning. Case studies-Chemical Industries –Pesticide Industries, Bhopal Disaster, Chernobyl accident, Love canal Disaster, Oil Disasters –Exxon, British Petroleum-Gulf of Mexico; e-wastes, Impact and Remedial Measures.

Text Books:

1. Wayne .G. Landis, Ming Ho Yu (2002). Introduction to Environmental Toxicology-, 3rd Ed.Lewis Publishers, CRC press , New York.
2. Schuurmann, G., and Market, G., (1998). Ecotoxicology, , A. John Wiley & Sons
3. Peter Callow (1998). Hand book of Environmental Risk Assessment and Management, Blackwell Science, London.
4. Cutter, S.L (1994). Environmental Risks and Hazards, Prenctice -Hall of India, New Delhi.

Reference Book

Benjamin, S.L., and Bellurk, D.A., (2001). Environmental Risk Assessment Report.

PES 4406 **Disaster Management** **6Hrs/4Cr**

To make endeavor towards creating awareness among the students about disasters and it's consequences to prepare them in advance to face such situations and ensure their participation in the disaster mitigation plans.

Unit 1: Man-Made Disasters - I

Disasters - difference between disaster and hazard - causal factors - Disaster management cycle Man- Made Disasters – types nature of man-made disasters - general effects - concerns for -manmade disasters - Biological disasters: meaning, types, vulnerability, effects, preparedness and mitigation - Chemical Disasters: Causes and impacts, chemical disaster management, mitigation, preparedness and response

Unit 2: Man-Made Disasters - II

Nuclear disaster: causes, effects, management - Fires-I: Characteristics of fires; Building, coal, and chemical fires; causes - safety and prevention, safety norms and disaster management - Fires II: Forest fires, their types, causes, impacts, mitigation and control - Desertification: Causes, general characteristics and effects & mitigation measures - Transportation Accidents: types, causes , impacts and disaster management.

Unit 3: Natural Disasters- I

Natural disasters: introduction, meaning and nature, types of natural - disasters, general effects - Earthquake: General characteristics, vulnerability, causes, impacts related - to earthquakes, prediction, warning and mitigation measures - Volcanic eruptions: Nature and causes, volcanic hazard monitoring- mitigation - Landslides: General characteristics, Causes, vulnerability, effects prediction & warning, risk reduction mitigation measures - Snow Avalanches: Avalanches formation and classification, hazard mitigation and management.

Unit 4: Natural Disasters- II

Cyclone: Formation, General characteristics, vulnerability, effects, Forecasting & warning, mitigation measures. Floods: General characteristics, vulnerability Causes and impacts forecasts & warning, Flood Plain zonation, mitigation measures. Drought: Meaning, types, General characteristics, Causes and impacts, vulnerability, prediction & warning and mitigation measures. Heat and Cold Waves: introduction causes and impacts, prevention and preparedness, Response. Tsunami: General characteristics, causes, impacts and mitigation.

Unit 5: Disaster Response

Disaster response plans, Search, Rescue and evacuation, Community Health and Casualty Management and damage assessment. Risk and Vulnerability assessment: Risk, Vulnerability, their concepts, elements at risk, Risk analysis techniques, vulnerability identification and factors associated with vulnerability. Disaster preparedness: Concept and nature, Disaster preparedness plans, Role of Information, education, communication, & awareness - Disaster mitigation: Concept, principles, mitigation approaches and strategies - Recovery: Rehabilitation, its social and economic aspects, Housing to resist disasters, relocation, retrofitting, repairing and strengthening of houses.

Text Books:

1. Bryant, E.A. (1991). Natural Hazards, Cambridge University Press, Cambridge, New York.
2. Carter, W. nick (1992). Disaster Management : A Disaster manager's handbook. ADB Publication, Manila.
3. Cuny, F. (1983) Disasters and Development, Oxford University Press, England.
4. Green, S. (1980). International Disaster Relief towards a Responsive system : Mc.Graw Hill Book Co. New York.
5. Gupta, H. (2003). Disaster Management, University Press, Hyderabad.
6. Prakash, I. (1995). Disaster Management, Rashtra Ghaziabad.

Reference Books:

1. Sahini, P. and Ariabandu, M. N. (2003). Disaster Risk Reduction in South Asia. Prentice Hall of India Pvt. Ltd. New Delhi.
2. Sahni, P and Malalgoda, M. (2003). Disaster Risk Reduction in South Asia. Prentice-Hall of India, New Delhi.
3. Sinha, P.C. (1998). Encyclopaedia of Disaster Management series. Anmol Pub.,New Delhi.
4. Smith, K. (1996). Environmental Hazards, Assessing risk & Reducing disaster, Routledge, London.

PES 4408 Environmental Toxicology Lab 5Hrs/4Cr

The course aims to provide a platform to students on concerns on soil and water toxicology, soil contamination and foster a better understanding of the principles and practice of environmental toxicology.

1. Experiments related to dose-response relationships for different pesticides
2. In vitro and In vivo Cell toxicity Assays- Cell viability, cytotoxicity
3. Toxicity assays – Nematodes / Earthworms
4. Animal Bioassays – Fish LC50
5. Micronucleus assay, Comet assay, Melanophore Index
6. Determination of Animal LD50, Probit Analysis and Graphical method
7. Quantitative analysis of pesticide using Gas chromatography (GC)
8. High performance liquid chromatography (HPLC)
9. Quantitative analysis of metals in environmental samples using atomic absorption and emission spectroscopic technique.
10. Analysis of environmental pollutants from air, water and soil

Reference Books:

1. Wexler, Philip et al, (2000). Information Resources in Toxicology: 3rd ed. Academic press
2. Curtis. D and John.B.Watkins. (2001). Toxicology 6th Ed. NewYork: McGraw-Hill,
3. Crosby and Donald. G. (1998). Environmental Toxicology and Chemistry. Oxford University Press.
4. Cutter and Susan,L.(1999). Environmental Risks & Hazards. Prentice Hall of India Pvt. Ltd. N.Delhi.
5. Landis, Wayne and Hing-hoYu, Baca Raton, (1995). Introduction to Environmental Toxicology: Impacts of chemicals upon Ecological systems:. Lewis Publishers.

PES 4410 **Health and Environment Lab** **5Hrs/4Cr**

This course will enable the students to have hands-on experience on the analysis and estimation of various harmful hazardous chemicals in the environment and to promote human health concerns related to the natural environment.

Analysis of the following in water and soil samples
1. Estimation of Cr
2. Evaluation of Ca
3. Estimation of Ni
4. Measurement of Zn
5. Estimation of Cu
6. Analysis of Fe
7. Estimation of Pb - (AAS)
8. Complexation of ligands with metals and their antimicrobial activities
9. Complexation of ligands with metals and their antifungal activities
10. Analysis of commercial samples of antacids
11. Determination of FE content in tablets
12. Determination of aspartin in sugar free tablets
13. Determination of paractemol in crocin

Reference Books:

1. Ambshat and Ambshat (1999). A Textbook of Plant Ecology, CBS Publications & Distributors, New Delhi.
2. Sharma P.D., (1993). Environmental Biology, Rastogi publication, Meerut.
3. Mason, C. E. (1997). Decomposition, Edward Arnold, London
4. Peter Callow (1998). Hand book of Environmental Risk Assessment and Management, Blackwell Science, London.
5. Ricci, P and Rowe, M.D., (1985). Health and Environmental Risk Assessment, Pergamon Press, New York.

PES 4202 **Restoration Ecology** **3Hrs/2Cr**

This course provide an opportunity for the students to study and learn to repair anthropogenic damage to the integrity of ecological systems. Also it impart knowledge on students to understand the emerging synthesis of ecological theory and concern about human impact on the natural world.

Unit 1: Restoration Ecology

Definition, Concept. Role of basic ecological principles and restoration ecology: biotic and abiotic interaction, ecological succession, role of pioneer species in restoration.

Unit 2: Restoration of Degraded Ecosystem

Soil, role of soil microflora - rhizosphere flora and decontamination of soils with case studies. Bioremediation and phytoremediation- concept. Bioremediation of mines soil dumps, ecological restoration of degraded ecosystems and wastelands, restoration of saline, alkaline soils, hydrocarbon and heavy metals contaminates sites. Bioscrubber for removal of obnoxious odors. Control measures for the leachates from solid-waste dumping areas.

Unit 3: Restoration of Degraded Aquatic Ecosystems
Role of plants and microbes. Restoration of riverine and coastal ecosystems, Wastewater treatment using constructed wetlands - watershed, concept and significance - Physical characteristics of watershed - Hydrological characteristics of watershed - Land-use and land-cover classification, resource appraisal.

Unit 4: Water and Soil Conservation Measures
Drain-line treatment; Area treatment- Goals, features and watershed as unit of sustainable development. Selection of plant species for plantation. Organic farming and organic fertilizers.

Unit 5: Agro-forestry Systems
Classification - Agrosilvopastoral systems - Silvopastoral systems - Land Agroforestry. Silviculture - Role of exotics - Ethnosilvicultural refugia - horticulture and pastureland

Text Books:
1. Evelyn A. Howell et al., (2011). Introduction to Restoration Ecology ISBN: 9781597261890 2. Reed, S.C., Crites RW and Middlebrooks E.J (1995). Natural system for waste management
and treatment, McGraw Hill
3. Bradshaw (2002). Handbook of Restoration Ecology, Cambridge University Press

Reference Books:
1. Michael L. M. (2013). Wildlife Restoration, 1st Edition, Island Press ISBN: 9781610911221
2. Paul H. Gobster and R. Bruce Hull (2000). Restoring Nature, Island Press ISBN: 9781559637688

PES 4204 Biodiversity Conservation 3Hrs/2Cr

The course will highlight the importance of protection, preservation and management or restoration of natural resources and to create awareness among students about biodiversity and nature conservation and to utilize the natural resources in a sustainable way. To develop critical thinking skills and to apply those skills in evaluating environmental issues.

*Biodiversity course being a field intensive, visit to forested landscapes forms an integral part of the internal assessment component.

Unit 1: Concepts and Components of Biodiversity
Biodiversity and its conservation - Introduction – definition: Genetic, species and ecosystem diversity. Biogeographical classification of India, importance of biodiversity: Biodiversity at global, national and local levels, India as a mega-diversity nation, hot-spots of biodiversity.

Unit 2: Threats to Biodiversity
Habitat loss, poaching of wild life, man-wildlife conflicts. Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity. Biodiversity as an important resource, human population growth and its Implications on biodiversity, biodiversity indices, value of biodiversity. Ecocircuit of the western ghats – important biosphere reserves – maintanence of ecological centers – ecotourism.

Unit 3: Global Biodiversity
Biodiversity hotspots in the world, national and global red data lists, categories of species and their management, biodiversity prospecting, IPR of biodiversity and its products, patent protection and biopiracy, endangered and endemic species of India.

Unit 4: Bioprospecting and Conservation
Bioprospecting and conservation, importance of biodiversity, biodiversity informatics, databases in biological materials – International efforts and issues of sustainability.

Unit 5: Biodiversity: It's Challenges and Future
Interaction of species – aquatic biodiversity – deep sea and small island biodiversity – marine biodiversity – wetland biodiversity – Microbial diversity – magnitude, occurrence and distribution - contemporary conservation – problems of human population, global climate change, pollution and land degradation - future strategies for India..

Text Books:
1. Dobson AP (1996). Conservation and Biodiversity, Scientific American Library, New York
2. Gaston K J and J I Spicer (1998). Biodiversity - an Introduction, Blackwell Science, London
3. Groom bridge B, and M Jenkins (2000). Global Biodiversity: Earth's Living Resources in the 21st Century, World Conservation Press, Cambridge, UK
4. IUCN (2004). Red list of threatened species - a global species assessment, IUCN, Gland, Switzerland
5. Loreau M, and P Inchausti (2002). Biodiversity and Ecosystem functioning: Synthesis and Perspectives, Oxford University Press, Oxford
6. Primack RB (2002). Essentials of Conservation Biology (3rd Edition), Sinauer Associates, Sunderland, SA
7. Pawar SN, RB Patil and SA Salunkhe (2005). Environmental Movements in India: Strategies and Practices, Rawat publications, Jaipur

Reference Books:
1. Wilson Edward, O (1993). Diversity of Life, Harvard University Press, Cambridge, MA
2. Walters C (1986). Adaptive Management of Renewable Resources, Macmillan Publishing Company, New York
3. Craig J. R, Vaughan D.J and Skinner B J (1996). Resources of the Earth: origin, use, and environmental impact (2nd Edition), Prentice Hall
4. Klee G.A (1991). Conservation of natural resources, Prentice Hall
5. Owen O. S, Chiras DD, Reganold JP (1998). Natural resource conservation – management for a sustainable future, 7th Edition, Prentice Hall
6. Richard Welford (1999). Corporate Environmental Management – Systems and strategies, University press (India) limited, Hyderabad
7. Forest L. Reinhadt (2000). Down to Earth - Applying Business principles to Environmental Management, Harvard Business School Press, Massachusetts

DEPARTMENT OF SOCIAL WORK
MADURAI – 625 002
2015-16

SEMESTER IV					
MSW 5422	Paper 1	Disaster Management (Common Paper)	4	80	80
MSW 5624	Paper 2	Project Work (Common Paper)	6	120	82
MEDICAL AND PSYCHIATRIC SOCIAL WORK (specialization)					
MSW 5542	Paper 3	Medical Social Work	5	100	85
MSW 5544	Paper 4	Psychiatric Social Work	5	100	89
MSW 5546	Paper 5	Hospital Administration	5	100	93
MSW 5548	Paper 6	Block Placement for Medical & Psychiatric Social Work II – Field Work	5	100	96
DEVELOPMENT MANAGEMENT (specialization)					
MSW 5562	Paper 3	Social Exclusion and Marginalization	5	100	98
MSW 5564	Paper 4	Urban Development in India	5	100	103
MSW 5566	Paper 5	Ecological Perspectives for Social Work Intervention	5	100	106
MSW 5568	Paper 6	Block Placement for Development Management II – Field Work	5	100	109
HUMAN RESOURCE MANAGEMENT (specialization)					
MSW 5582	Paper 3	Human Resource Development	5	100	112
MSW 5584	Paper 4	Organization Development	5	100	115
MSW 5586	Paper 5	Performance Management Systems	5	100	118
MSW 5588	Paper 6	Block Placement for Human Resource Management II – Field Work	5	100	121

Semester I **Credit: 5**
Paper - 1

MSW 4511 UNDERSTANDING SOCIETY

Course Description:

This course aims at offering a curtain raiser on the functional composite called 'society' and seeks to equip the students to develop analytical frames of reference to understand and appreciate its structure and stratification. Basic sociological thoughts and concepts used in looking at the society will help students to construct a critique on understanding social and cultural issue.

Objectives:

- To introduce students the elements that constitute a society and make them familiar to the concepts and theories proposed on its knitting.
- To show to the learner that the emergence of society as essentially a function of time involving community and social group interactions
- To trace the origin Indian society and compare it with other dominant ones from the sociological stand point and draw their attention to the dynamics, association and organization of society

Learning Outcome:

With the input received, learners will be able to understand and appreciate the art, dynamics, and problems of gelling with society and shall decipher the subtle differences between social service, social work, and sociology. The stress, strain that exists in the societal stratification would have been informed well.

UNIT I Introduction

Man as social being in the community- Cursory investigation on the constituents of a society- Rural, Urban and Tribal components - Intellectual and Historical roots of Sociology as a scientific discipline - Sociological knowledge as a tool of social intervention – Conservative and radical stand of Sociological questions relating to Sociology as a Science

UNIT II. Conceptualizing Society

Tracing records and imprints on journey of human society across civilization - Contextual meaning of the term - Theoretical positions and differing meanings of Community – Social Structure: Social Group; Association; Organization - Social Action: Interaction and Social Role and status.

UNIT III. Culture

Culture as a edifice of human development and a byproduct of distinctly human traits – Geo-climatic differences in shaping up human destiny and the story of human adaptations – Stages of socialization within and among other life forms - Identifying components of culture - Conceptualizing culture - different theoretical standpoints, Material and Non-Material Culture, Ethnocentricism, Cultural Relativism – Post-modernist view of culture – Ethnography.

UNIT IV. Individual and Society

Distinguishing biological, psychological, and social basis of an individual – Recognition of "self" and the Socialization process – Insights form George H. Mead and C. H. Cooley- Norms, Values, Laws - Sanctions and Control, Theories of deviance - Traditional notions of change – Fatalistic, Cosmic and Teleological Enlightenment, self-consciousness and human

self-determination - Selected theoretical traditions: Evolutionary (Comte) Structural functionalism (Durkheim) Radical (Karl Marx) and Conflict (Lock)

UNIT V. Social Stratification

Contours and the reality – Drivers of inequality and stratification - Different forms of stratification – Historical and Contemporary Stratification – The case of India - Selected theories on Stratification - Social institutions: Family, Marriage, Economy, Polity and Religion. - Social Change.

References:

Berger, Peter.L, (1966) Invitation to Sociology, Harmondsworth. Penguin Books.
Bhusan, Vidya & Sachdev, (2006) An introduction to sociology , Allahabad , Kitab Mahal.
Haralambos.M. (1981) Sociology: Themes and Perspectives, Delhi. Oxford University Press.
Harry, M. Johns, (1993) Sociology- A systematic Introduction, Chennai, Allied Publications.
Horton, P.S. & Hunt, C.L. (2005) Sociology, NewDelhio, TatMAc Graw HIll
Singh, Yognedra (1994) Modernization of Indian Society Jaipur, Rawat Publications
Turner, Jonathan. (1987) Structure of Sociological Theories. Jaipur. Rawat Publications.

Semester I **Credit: *5***

Paper - 2

MSW 4513 PSYCHOLOGY FOR SOCIAL WORK

Course Description

This is an introductory and preparatory paper which would deal with the various elements of psychology needed for social work. Ideas and insights providing the foundation of this course will lead the student to develop a passion and interest in their career as a Social Worker.

Objectives:

- To develop a broad based understanding on Psychology as an accompanying element of social work
- To recognize scope and relevance of psychology in various sociological settings.
- To make the boys and girls realize the role of hereditary and environmental influences on their physical, emotional and intellectual development
- To enable them to focus on aspects of learning with a balanced frame of mind to correctly perceive and interpret their physical and social environment.
- To introduce the concept of abnormality pitching on the standards of Normality

Learning Outcome:

On completing the exercises prescribed, students would have learnt the importance of Psychology as an overlapping discipline of social work and might have equipped themselves in understanding the nature, scope and basic concepts in Psychology to draw a comprehensive picture on distinguishing their role in social work interventions.

Unit I Introduction to Psychology

Need to understand mind and behavior – Psychology as a approach to recognize it - Definition, meaning, methods, branches and scope of psychology, Brief history and fields of psychology, Nature vs. Nurture paradigm, relevance of psychology for social work practices

Unit II Perception and Learning

Cognition - Introduction to Cognition Theories. Perception and Perceptual process, role for brain and CNS. Learning as an outcome of faculty of thinking- experiments and learning theories, application of learning, concept of formation. Thinking and Memory – the memory Process: encoding; retention; retrieval; forgetting - Defense mechanism. Emotions – Emotional Intelligence and Emotional Quotient

Unit III Developmental Psychology

Development of Psychology – A Historical Perspective: Introduction The early age pre – Scientific Psychology – the Modern age of Scientific Psychology Structuralism – Functionalism – Behaviorism – Gestalt Psychology – Psychoanalysis – Transactional analysis. - Freud's psycho sexual development – contribution of Erikson's 8 stages and Elizabeth Hurlock

Unit IV Personality and Motivation

Memory, Intelligence and Emotions as integral elements of a person and personality; Meaning, definition, theories, types and factors influencing personality; Notions and theories on Intelligence; Motivation Concept and Theories of Motivation –Perception, Attitude and Attitude formation.

UNIT V Deviant Behavior:

Instances of Abnormal Psychology: Concept of normality and abnormality- Mental illness: Types and causation of mental illness- Psychoses Vs. Neuroses, IQ Vs. EQ – Measures of Psychological Testing – Definition – Types – Characteristics & Importance.- role of social workers in promoting mental health

REFERENCES:

Anastasi, A. (1987) Psychological testing, McMillan Revised Edition, New York
Bhatia, M.S. (2010) Short Text Book on Psychiatry V edition, CBS publishers & Distributors Pvt., Ltd. New Delhi, Chennai
David, H. Barlow V.,(2008) Mark Durand Abnormal Psychology, Thomson Wardsworth
Davidoff, L. L (1976) Introduction to psychology, McGraw Hill Inc ; .New York
Eric (1978) Human Development, George Allen and Unwin, London
Hurlock E.B (1995) Developmental Psychology, Tat McGraw Hill, New Delhi
Jaypee Brothers (2005) Diagnostic and Statistical manual of mental Disorders DSM-IV- TR Medical Publishers Pvt. Ltd.
Kuppusamy, B. (1980) An Introduction to Social Psychology, Media promoters and pub, Bombay.
Michael Gelder (2009) Shorter Text book on Psychiatry V Edition Paul Harrison and Philip Cown Oxford University Press
Morgan, C . T. & King , R.A. (1975) Introduction to psychology, McGraw Hill, New York.
Munn Norman, L. (1967) Introduction to psychology, Oxford and IBH, New Delhi
Newman P.R.& Newman B.M (1981) Living: The Process Of Adjustment, Illinois; The Dorsey Process Rayner.
Page, J.D. (1967) Abnormal psychology, John Wiley & sons, New York
Ramsamy,P. (2008) General and Medical Sociology , Chennai, New Millennium Publications
Schifferes Justus, J. (1960) Essentials of Healthful Living, John Wiley & sons, New York
Sharan A.K.(1997) international Understanding of Human Psychology, Commonwealth, NewDelhi

Credit: 5

Semester I
Paper - 3

MSW 4515 INTRODUCTION TO PROFESSIONAL SOCIAL WORK

Course Description:

This course aims to build a platform for students to make students take social work as their career and professional practice. Drawing from the roots of its origin, the course will offer a holistic idea on how the social work profession has come of age in India. It aims to outline the strengths, opportunities, challenges that engulfs the profession and presents the social reality of the contemporary world.

Objectives:

- To introduce the learner to the openings in various fields of social work that they may enthuse themselves in getting trained as a social worker
- To apprise students of the social work process and impress upon them the need to acquire knowledge on all basic concepts related to the social work profession.
- To make them come to know the professional values and ethics of social work that distinguishes them from other related disciplines and professions that they turn confident in their grinding and grounding as social worker and social work organizer
- To empower students and guide them into the vocational dimensions that may be instilled with confidence to look at Social Work as a enriching profession
- To draw their attention and orient them in appreciating the essentials of the profession that they may be confidant about their own grooming to stand tall amidst other professionals

Learning Outcome:

With successful completion the students would have enrich their knowledge about various concepts, methods, and functional avenues of social work, to develop a conviction on social work as a profession that training in the remaining part of the course and life shall be made more meaningful and goal oriented.

UNIT I: Contours and Domain of Social Work

Social Work- Concept, Definition, Philosophy and scope -Objectives and Principles of Social Work - Related Concepts- Social Service, Philanthropy, Social Welfare, Social Reform, Social Security, Social Policy, Social Development, Social Empowerment.

UNIT II: Social Work as a profession

Professional attributes in Social Work- Historical Development of Social Work in Western (UK & USA) and Indian context- Role of TISS Professional Code of ethics, - Challenges to a Social Work professional - Professional Associations in social work

UNIT III: An overview Methods in Social Work

Direct Methods- Social Casework, Social Group work, Community Organization Indirect Methods- Social Action, Social Work Research, Social Welfare Administration

UNIT IV: Functional Avenues

Various fields of Social Work: Family and Child Welfare, Youth Development, Medical Social Work, Industrial Social Work, Correctional Social Work, Labour Welfare, Community Development at Urban and Rural settings

UNIT V: Social Engagements in Transforming Society
Social Service and Voluntary Action- Social Service and Reform Tradition in India: Ancient, Medieval & Modern period, Hindu Reform Movement, Dalit movement, Gandhian Ideology and Sarvodaya Movement

References:
Bailey.R & Brake.M (1975) Radical Social Work, Edward Arnold
Chowdhry, Paul (1992) Introduction to Social work , New Delhi, Atmaram & Sons
Clock.G & Asquith.S (1985) Social Work & Social Philosophy, London: Routledge & kegan Paul
Congress.E.P (1998) Social Work Values and Ethics, Chicago: Nelson- Hull Publishers
Cox, David & Pawar, M. (2006) International Social Work-Issues, Strategies and Programs , New Delhi, Vistaar Publishers
Dominelli, L. 2004 Social Work: Theory and Practice for a Changing Profession
David Howe, (2009) A Brief Introduction to Social Work Theory, Palgrave Macmillan Publishers
Freidlander, (2005) Concepts and Methods of Social Work, New Delhi, Concept Publishers
Hepworth, Dean H. (2010) Direct social work practice-Theory and skills, K: Brooks/Cole Publishers, New York
Herschel Knapp (2009) Introduction to Social Work Practice - A Practical WorkBook, Sage Publications
Madan, G.R., (1981) Indian Social Problems, Allied Publishers, Calcutta.
Siddiqui, H.Y. (2008) Social Group Work: Theory and Practice Rawat Publications, New Delhi
Trecker Herleigh (1972) Social Group Work- Principles and Practice

Semester I **Credit: *6***
Paper - 4

MSW 4617 SOCIAL CASE WORK AND SOCIAL GROUP WORK

Course Description
This course aims at introducing two fundamental methods that are imperative for social work. It would unfold to students the concept and strategies of social case work and social group work and will entrain them to work with individuals and groups in the Society. Training given in the course will provide the know-how on judicious use of social case work and group work tools and techniques in social work practice.

Objectives:
1. To introduce case work and group as the primary methods of social work and to make students understand values, principles and importance of working with individuals and families
2. To develop in them, the ability to critically analyze problems of individuals and families and factors affecting them
3. To help students gain knowledge about group formation and use of a variety of group approaches and to understand concepts, dynamics and models
4. To urge the learner develop knowledge of the principles, skills and techniques that ought to be used by the social worker while pursuing case and group investigations

Learning Outcome:

Students who will sit through this course would have acquired the needed social work competency and honed skills of case and group work for working with Individuals and Families to the extent they will be able to identify situations and settings to translate their thoughts and ideas with the right method(s) considering the prevailing context of social reality.

UNIT I Introduction of Social Case Work

Meaning, definition, objective, principle, nature and scope of Social Case Work. Social case work relationship with methods of social work and historical evolution of social case work. Basic components of social case work: Problem, Person, Place, and Process.

UNIT II Process and Techniques of Social Case Work

Process - client case worker relationship, initial contact, case study, analysis, diagnosis, treatment, termination and follow up. Techniques- interview, observation, home visits, collateral contacts. Models of Social case work – Richmond, Hamilton, Perlman, Rappport and Elleen Gabriel

UNIT III Social Group Work

Groups and its types - Psychological needs. Meaning, definition, objective, principle, formation, nature and scope of the Social Group Work. Group work relationship and streamlining of methods of social work with a note on its historical conations, Current application of group work- Group Dynamics.

UNIT IV Group Work Process

Intake – Study – diagnosis goal setting, treatment and Evaluation. Principles of Programme Planning. Programme Laboratory and its Relevance: Games, Singing and dance, arts and crafts, dramatics and role play, storytelling, Puppetry, Group discussion and exposure.

UNIT V Therapies in Social Case Work and Social Group Work

Casework context: psychoanalytic therapy, behavior modification, rational emotive therapy, family therapy and counseling, extensile therapy, crisis intervention, multi system approach. Group work context: Therapies- Transactional analysis, Gestalt therapy, Psycho drama, Ground psycho therapy.

REFERENCES

Alissi, Albert S (1980), Perspectives on social Group Work Practice, The Free Press, New York.

Aptaker, Herbert, (1982) Dynamics od Case Wrok and Counselling, Miffin Pub. Boston

Conyne K, Robert (1999), Failures of Group Work Practice, Sage, Oaks.

Douglas, Tom (1972) Group Process in Social Work, Chicester, Willey.

Gerald Corey (2000) Theory and practice of Group Counselling, Wordsworth, London

Gisela Konopka, (1963) Social Group Work: A helping Process, Prentice Hall, New Delhi

Gisela Konopka (1972) Social group work-A helping process, Prentice Hall, Engle Wood Cliffs

Glassman. Urania, et al., (1990) Group Work: A Humanistic approach, Sag, Newbury Park,

Gravin, Charles, D. (1989) Contemporary Group Work, Prentice Hall, New Jersey.

Hollis, Florence (1964) Case Work - A Psychosocial Therapy, Random House, New York

Jordan, William1 (970) Client Worker Transactions, Rutledge & Kegan Paul, London

Kadushin, Alfred (1972) The Social Work Interview, Columbia University Press, New York

Mathew, Grace (1993) An Introduction to Social Case Work Bombay; Tata Institute of Social Sciences, Mumbai

Perlman, Helen H (1957) Social Case Work - A Problem solving process, University of Chicago Press, Chicago.
Upadhyay, P.K. (2003) Social Case work New Delhi Rawat Publications

Semester I **Credit:*9***
Paper - 5

MSW 4919 OBSERVATIONAL FIELD WORK

In order that a social worker will have to be sure of his/ her field of work and engagement, and must have the competency to function confidently in his/her profession, this unique exercise involving a direct exposure to different kinds of field work settings which would present to the students the actual needs, skills and training requirements expected of him/ her is arranged. Incidentally this course will be of long duration than others and will comprise of workshop cum skill development training, field and organizational visits, and all other tailor made ingredients that are required for picking up cues to customize training according to the individual needs and expectations.

This is a lab course in the sociological sense and has the grit to tilt the program towards professionalism in social work practices. The engagement in real life situations that students will examine here will practically orient the students towards developing basic competencies required for doing effective field work. Time spent in the two-part approach of this practicum will provide a orientation on personal preparations needed for the job and will accompany a vast duration of time in the study period devoted for observation and investigative enquiries to be made in various field work situations.

The in-house training on soft skills and leadership traits given though workshops and simulated exercises, the closely supervised field exposures and observation visits worth a concurrent training, and the professional skills inculcated will embellish the course as the most unique and critical input offered in the whole program.

Part –A Getting started (30 h)
Essentials of Field Work

- Knowing Self and Context
- Traits to be built: Self Confidence, personal vision, identity and relating with others, communication, capacity for team work, accepting personal responsibility, gender relations, leadership, motivations, Goal setting, Time management
- Skills for Comprehension – Avenues of input : Listening - Reading - writing – Reflections
- Skills for contextualizing Fieldwork and developing spontaneity - Interviewing, observations, use of records, social mapping, recording, report writing and documentation Developing Learning Objectives, Preparing Field work Plans , Field Work Conferencing and transparency

Part –B:* Observational Visits *(60h)
List of settings:

- Industrial setting,
- Development setting,
- Hospital setting,
- Health setting,
- Correctional setting,
- Rights Based Organizations,
- Educational setting,

The above practicum will be covered in sixty hours in which students will be introduced to various generic social work settings through observational visits. The essentials, terminologies, and techniques to be applied in the field and organization context will be appraised by pre departure training. The students will be permitted to visits these settings, two times each. The observations made by the students will be recorded and individual experiences will be shared, discussed and recorded periodically. Work put in by the students will be monitored by the Faculty. Students are expected to submit reports prepared as per guidelines indicated in the manual at the beginning of each new week after a cycle is completed.

Course Requirements and Evaluation:
75% of marks will be allotted for continuous assessment. Regularity in attendance, keenness to participate, readiness to learn, and development of required skills, ability to conceptualize and acquisition of functional knowledge will be tested on the basis of process reports, observational reports and participatory evaluation by the faculty. A viva voce will be conducted at the end of the semester by a three-member committee of which one is an external member. Performance in the viva will be evaluated for 25%.

A. Continuous Assessment:
(Based on submission of weekly reports/assignments)

i.	Regularity of attendance	10 marks
ii.	General Participation	15 marks
iii.	Skills and Competencies	15 marks
iv.	Individual Presentations	10 marks
v.	Written Reports	25 marks
		Total 75 marks

B. Viva Voce:

i.	Conceptualization	5 marks
ii.	Working Knowledge	5 marks
iii.	Problem Solving Ability	5 marks
iv.	Consolidated Report	10 marks
		Total 25 marks

Semester II
Paper - 1

Credit: *5*

MSW 4512 SOCIAL WELFARE ADMINISTRATION

Course Description:

Providing the knowledge and sights on the various social welfare processes and schemes launched in India, ingredients of this course would help the learner to see Social Welfare Administration as a method of social work. Besides keeping the student informed on currency of social policies and administrative arrangements made for social welfare dispensations, the course will deal with the statues and provisions created to keep a guard on the process as per the norms and the constitutional frame kept in tune with the preamble of the country.

Objectives:

- To introduce Social Welfare Administration as a method of social Work
- To develop in students the ability to understand and take advantage of the Social Welfare Administration as a tool and process social change
- To make the learner gain knowledge and touch base with the administrative designs in the state and country and provide know-how on the role of Human Service Organizations.
- To apprise students on the different formats and models of Organizational & Financial Frameworks
- To inform wards on the welfare policies of the government and keep them updated
- To etch in students the skills and confidence for establishing a newer human service organization, if there be any need

Learning Outcome:

As outcome of discussions, the course shall facilitate a critical understanding of the basic processes of administration and offer to the students an understanding on the procedures and policies behind the establishment of Social Welfare Organizations. Ideas shared on the nitty-gritty involved in the functioning of welfare organizations and the ways and means to create one taking advantage of the newer spaces emerging across the country and world will make the student confident in his/her spheres of activity as a social work advisor or an organizer.

UNIT I: Social Welfare Administration (SWA) as a concept and a method

Social Welfare Policy in India - Arrangements and Constitutional provisions; Definition, Principles and Guidelines of Social Welfare Administration, Functions and significance of SWA – Institutional, Managerial, Technical components, nature and scope of Social Welfare Administration in Tamilnadu, Related Concepts: Social Welfare; Social Development; Social Welfare Agency; Qualities of a Social Welfare Executive, Functional areas: Ministries, State and Central Boards and other National Institutions

UNIT II: Administrative Cycle, Organizational & Financial Framework

Basic Administration Process: Planning, Organizing, Staffing, Directing, Controlling, Reporting, Budgeting, Notes on Book keeping. Financial and Office Administration: Budgeting, Accounting, Auditing, Fund Raising, Reporting, Office procedures and Record maintenance, associated organizations in Social Welfare Administration- Guidelines to prepare project proposals

UNIT III: Domains of Welfare Engagement

Policy issues related to Nutrition and Food Security, Education, Health, Women and Children, Backward Classes, Senior citizens, Unorganized Sector Workers Appraisal, Designing and Implementation of schemes: Guidelines to draw major proposals, Monitoring, Evaluation, Decision-Making, Co-ordination, Communication, Public Relations and Networking as stages in scheme activity

UNIT IV: Structure and Statutes

Social Welfare Organization- Types of Social Welfare Agencies - Registration of Societies and Trusts- Bye-laws, Functioning of the Governing Board, Provisions in the Income Tax Act, Foreign Contribution and Regulation Act- Function and responsibilities of governing board-Committees and Office Bearers- Organizational structure and functions

UNIT V: State Initiatives & Contemporariness

Evolution of Social Welfare Ministry in India- Welfare of Scheduled Castes and other Backward Classes- Empowerment of persons with disabilities- Senior Citizens, Victims of Substance Abuse- Ministry of Women and Child Development: ICDS, ICCW, ISSNIP, ICPS, Child Welfare-, Functions, Structure and Programmes of Central Social Welfare Board, Administrative arrangements for Social Welfare in Tamilnadu- Provisions in State Social Welfare Board

References:

Bhatiya & Dingh (2009), Social Policy In India, New Royal Book Company, Lucknow.
Bose.A.B, (2001), Social Welfare Planning in India, Bangkok, United Nations.
Chowdhry, D. Paul. 1983- Social Welfare Administration, Atma Ram and Sons Publishers, New Delhi
KumarJha (2009) , Encyclopedia of Social Work, Social Welfare and Social Work, Anmol, New Delhi
Rino. J.Patti 1983 (2008)- Social Welfare Administration: Managing Social Programme sin a Developmental Context, Prentice Hall Publishers
Sachdeva, D. R. (2013)- Social Welfare Administration in India, Kitab Mahal Publishers
Sanjay Bhattacharya (2006)- Social Work Administration and Development, Rawat Publishers
Singh D.K. (2013_- Professional Social Work: Principle & Practice, New Royal Book Publishers

Semester II **Credit:5**

Paper - 2

MSW 4514 COMMUNITY ORGANISATION

Course Description

This course is designed to present to students community organization as another option method of social work. Besides enabling them to understand the basis of the organization of a community, content of the course helps the learner to look at the nuances of applying community organization as a strategy for social work in different conditions.

Objectives:

1. To develop an understanding for the students to have a scientific approach to human enquiry in comparison to the native or common sense approach in various aspects and its process.

2. To help learners understand major rural situation and urban situation, meaning, scope, and importance of social work research
3. To engrain ability in Program based activities and identify role of social worker in rural community.
4. To inculcate attitudes favorable in rural people ideology and practices

Learning Outcome
As the student completes this course, he/she shall know to apply the ideas of community organization to diverse situations as a method of social work and compare results with other established models such that the existing situation is deciphered and the proposals for social action is planned. Utility wise, the learner will be able to don role as community organizer and shall come out with advocacy or a recommendation to address issues and offer solution to proactively deal with insurgencies.

Unit – I Introduction
Community as entity and a group of interdependent individuals, Other definitions, characteristics and types of community -functional and geographical. Differences between urban, rural and ethnic communities. Importance of understanding the Community Leadership and the Power structure in the community.

Unit – II Community Organization
Community organization as a method of social work- Definition, Objectives, Assumptions, and Principles of Community Organization. Approaches in community organization – Neighborhood Development Model, System Change Model & Structural Change Model.

Unit – III Methods of Community Organization
Need to Probe: Fact Finding, Planning, Group Decision Making, Conference and Committee Practice, Co-operative action negotiation, consultation, Methods of Conflict Resolutions, Resource Mobilization, Administration, Recording Evaluation, Skill required for Community Organization.

UNIT IV STRATEGIES FOR SOCIAL ACTION
Social Action: Definition, Principles, assumptions and strategies. Advocacy and Lobbying. Contributions of Gandhi, Saul Alinsky and Paulo Frierrie. Case studies on CO – Cooperative movements and models.

UNIT - V Role of community organizer
Community Organizer as Multi tasking and multi dimensional personality – Limitations of a community organizer. Application of community organization method in issues related to Natural Resource Management, Public Health, Child Rights, Food Security, Civil Conflicts and Disaster Management.

REFERENCES:
Arun Ghosh (1992) Planning in India, New Delhi: Sage.
Joseph M.K (2000) Modern Media and Communication, New Delhi: Anmol.
Kumar, Aravind (2000), Encyclopedia of Decentralized Planning and Local Self Government, New Delhi: Anmol.
Kumar, Arun, (2000) Agriculture Development, Today & Tomorrow, New Delhi: Anmol.
Kumaran, Hyma, Wood (2004), Community Action Planning, Chennai, T. R. Publications
Laxmidevi (1997) Planning for Employment and Rural Development, New Delhi: Anmol.

Maheswari.S (1985) Rural Development in India - A Public Policy Approach, New Delhi: Sage
Mascarentas (1988) A strategy for rural development, New Delhi : Sage.
Mathur.B.L.(1996) Rural Development and Cooperation, Jaipur: RBSA Publishers.
Murray.G. Ross, (1955) Community Organization. Theory, Principles and Practice, New
Oakly, Perter etal, (1991) Projects with people: The Practice of participation in rural
Rahul Mudgal (1996) Economic Dimensions of Rural Development, New Delhi: Sarup&sons
Rajeswar Dayal Community Development Programme in India, New Delhi: Kitap Mahal
Satyasundaram. (1997) Rural Development, New Delhi: Himalaya Publishing House
Singh, Hoshiar (1995) Administration of Rural Development in India, New Delhi : Sterling Publishers Private Ltd.
Tiwari S (2000) Encyclopedia of Indian Government: Programmes and Policies, New Delhi:

Semester II **Credit: 5**
Paper - 3

MSW 4516 SOCIAL POLICY AND SOCIAL LEGISLATIONS IN INDIA

COURSE DESCRIPTION:

This course is aimed at providing knowledge on the basis for handling social policy and major social legislations in India. During the discourse, information related with the legal backing, limits and jurisprudence of dealing with the social policy will be taught to make the learner to gain confidence and the authority to deal with the social case situation in which heshe is acting. Content of the course shall touch upon various social work policies introduced in the context of welfare administration and the administrative arrangements made to usher the same. It will specially throw light on legal aspects and judicial implications of procedures and practices that ought to be followed in social work practice.

OBJECTIVES:

1. To enable the students to acquire skills in develop a perspective and engage in the critical analysis of Social Policies and Development plans in India
2. To inform the learner the clauses, provisions and the rules etched in the form of social legislations to protect common good and promote egalitarian approaches through socio developmental and right protection projects
3. To entrain them in the understanding of legal rights to present themselves confidently working for people in the context of administering social legislations
4. To inform students on their rights and responsibilities when it comes to the question of identifying role and functions in protecting Human dignity and honor
5. To develop an insight into Social Legislations dealing with marginalized groups and other weaker sections with an intent of empowering them to be accommodated in the main stream
6. To help and assist individuals and agencies with cognitive inputs that they may turn custodians of social justice articulating for rights and privileges accorded through legal and constitutional provisions

COURSE OUTCOME:

On successful completing the course the leaner should have had the knowledge on various techniques and approaches in social legislations that he/she will be able to address social problems with a holistic perspective. Discussions on the judicial ramifications analyzed through appropriate case studies will ensure students that they have firsthand knowledge

adequate exposure on social work interventions are that padded with legal provisions. This will give the candidate the self esteem, power and the prowess for articulating social issues with courage and confidence facing any eventuality.

Unit I Social Policy

Indian Constitutional Framework: Fundamental rights and Directive Principles of State Policy- Meaning, Scope, and Objectives of Social policy and overview of its Types - Social Policy as an instrument of social change- reach and lapses.

Unit II Issues in Protecting Human Rights

Meaning of human rights: Need for human rights legislation - Major provisions of the law - Structure, functions and powers of National and State Human Rights Commissions. Judiciary System: Family Courts, Lok Adalats, The Legal Aid, Public Interest Litigation - Ministry of Social Justice & Empowerment and Home Ministry

Unit III Social Legislation

Definition, its roles as an instrument of social change, constitutional basis for social legislation: social legislation in historical context - Legislation as a tool for social justice and control

Unit IV Social legislations – Micro Elements

1) **Laws Related to Children:** Juvenile Justice Act, Adoption and Guardianship, Child Marriage Restraint, Prohibition of Child Labour. 2) **Laws Related to Family:** Personal laws and the Civil law related to Marriage, Divorce and Maintenance & Succession; Law against Domestic Violence; Law of Family Court 3) **Laws Related to Women:** Prevention of immoral traffic, Dowry prohibition, Rape, Medical termination of pregnancy, Maternity benefits, Prohibition against Prenatal diagnostic tests (for sex determination) .

Unit V Social legislations – Macro Elements

1) **Laws Related to Scheduled Castes and Scheduled Tribes:** Protection of Civil Rights; Law against Atrocities. 2) **Laws Related to Disabled:**
, Persons with Disabilities, National Trusts Act 3) **Laws Related to Workers:** Minimum wages, Workmen's compensation 4) **Laws Related to Consumers and Citizens:** Consumer protection, Food adulteration, Right to information (RTI)

References:

Adamantia Pollis, Peter Schwab,(2000), Human Rights: New Perspectives, New Realities, Lynne Rienner Publishers,.
Constitution of India. (1991). New Delhi: Govt. of India.
Encyclopedia of Social Work. Vol. I & III
Gangrade K D. (1973). Social Legislation in India. Bombay: Popular Prakasam.
Nation Law School. (1991). Select Materials on public Legal Education. National Law School of India University. Bangalore.
O P Chauhan, (2004), Human Rights: Promotion and Protection, Anmol Publications Pvt. Ltd.
Velayutham, K.Shanmuga (1998). Social Legislation and Social Change. Chennai: Vazhga Valamudan Publishers.

Semester II
Paper - 4

Credit:*6*

MSW 4618 - SOCIAL RESEARCH AND STATISTICS

Course Description:

A masters program in the discipline Social Work cannot be complete without providing an opportunity for a student to hone his/her reflexive skills. Though the good number of observational visits, field studies, summer and block placement experiences would give the student adequate firsthand knowledge, the ability to draw right insights can be acquired with proper formal input and training. It is with this specific task this paper Social Research and Statistics is designed. The course aims at introducing the students to the core concepts, principles, methods and procedures of social science research.

Objectives:

1. To help the students to recognize Social Research as a Method of Social Work engagement.
2. To develop the appropriate skills to effectively implement the Research Methods and relevant Techniques to knowledgably intercede in the Field.
3. To enable the students to understand the importance of the application of Statistics in Social Work Research
4. To equip the student with the necessary skills and provide them with ability to take up Research Projects independently later.

Outcome:

At the exit, the course work would facilitate a thorough understanding on the contemporary Trends and Practices in Social Work Research

UNIT I Introduction to Social Research

The search and research loop on how things work, Deployment of Science and Scientific procedures, Common probes and the probing process for knowledge acquisition, Nature, strength and characteristics of scientific data, Validity, Reliability and Replicability - Generalization, Induction and Deduction, Scientific method for understanding and interpreting social phenomena; Social Work Research as tool and Technque: Meaning and definition, Objectives, Scope, Characteristics and Functions - Types of Research: Pure and Applied Research – Difference between Social Work Research and Social Research; Qualitative and Quantitative Research.

UNIT II Research Process and Research Designs

An overview: Problem Identification, Review of Literature, Selection, Formulation, and Clarification of Research Problem - Formulation of Aim and Objectives – Theoretical framework: Facts - Concepts - Theories; Hypothesis-Meaning, Definition, Sources, Formulation, Types and Functions. - Pilot study and its importance - Research Design: Concept –Meaning – Definition- Importance and Types-Exploratory, Descriptive, Diagnostic, Experimental research designs and Case studies.

UNIT III Sampling and Tools of Data Collection

Universe and Sampling: Meaning, Its importance, purpose - Types- Probability and Non Probability sampling methods. Sources of data collection: Primary and Secondary Sources. Tools of data collection: Interview Schedule, Questionnaire: Construction of questionnaire/interview schedule - Content, types of questions, question format and sequence

of questions -Advantages and disadvantages. Uses and applications of Scaling techniques: Reliability and Validity.

UNIT IV Data processing and statistical analysis

Methods of Analysis: Coding, Tabulation, Analysis and Interpretation – Research Reporting: Format and Preparation - Types of Reports, procedures of writing a research reports; Footnotes, Referencing and Bibliography. Statistics : Meaning, Definition, limitations and uses of Statistics - Need,Uses and Importance of Statistics in Social Work Research – Frequency Distribution - Construction of Frequency Tables - Descriptive Statistics: Measures of central tendency – Mean, median, mode; Measures of dispersion - Measurers of dispersion: Range, Quartile deviation, Standard deviation - Test of Significance : t-test, Analysis of Variance (ANOVA), Chi-Square test – Correlation; limitations of statistical applications in social work research.

UNIT V Qualitative Research and Methods

Understanding the Methods in Knowledge Creation: Positivism - Falsification - Paradigm Shift; Qualitative research – meaning, definition, types, process; Methods of collection of data – ethnography, observation method, phenomenology, grounded theory, case study, Semiotic analysis, Triangulation methods, Content Analysis, historical method, action research, in depth interview, focus group interview and artifacts. Relationship between qualitative and quantitative research – Ethics of Qualitative research - Limitations of Qualitative Research.

References

- Baker, Therese L.(1998). Doing Social Research, New York. McGraw-Hill International Editions
- Chaudry, CM. (2009), Research Methodology, Jaipur: Ashish Paranmi Publishers.
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- Gupta, S.P. (1990). Fundamentals of Statistics New Delhi. Himalaya Publishing House.
- Kothari. C.R, (2004), Research Methodology, NAI Publishers, New Delhi.
- LalDas .D.K., (2000) Practice of Social Research, Rawat Publications, Jaipur
- Pauline V Young, (1996), Scientific Social Surveys and Research, 4th Edition, Prentice Hall, India

Semester II **Credit:*9***

Paper - 5

MSW 4920 PREPARATORY FIELD WORK – CONCURRENT

Course objective:

This course aims at developing a closer understanding of field work requirements to the students who are to take their specialization. The content of the course would be dealt with a special approach.

Customization of the training experience

This course being the first of its kind to be experienced by the student in the social work program towards gaining direct field experiences will rest on teacher's inventiveness to entrain him/ her in the selected field setting for a period of 30 days (2 full days a week). In the creative design of the programme the students who will be attached to an organization / agency will focus consistently in such a way a team of two would continuously monitor the professional skills and methodology followed by the supervisor belonging to the agency in social work setting. The check list provided would direct the candidate look for on details that he/she will have to observe keenly in his/her field work engagement.

A student who will be freshman may rely on the prudent guidance and devotion of the faculty to inculcate social sensitivity in his/her wards. To familiarize the student with the contemporary reality, direct assessments and filing of report on the social issue studied in the community, and/or the mechanics of organizational interfacing of the agency to which a student is connected for his/her own training will be revisited, recalled and recounted for the sake of comprehensively listing down the acquired social skills.

In order that the learner gets the full advantage of the experience a Questionnaire shall be prepared for a summative evaluation. Owing to the intenseness and focus needed Team Teaching, Mentoring, Peer referencing and other novel techniques of Portfolio management shall be tried during the course work.

Course Requirements and Evaluation:

- 75% of marks will be allotted for continuous assessment.
- Regularity in attendance, keenness to participate, readiness to learn, development of required skills, ability to conceptualize and acquisition will be tested
- The functional knowledge will be evaluated on the basis of process reports, observational reports and participatory evaluation by the faculty.
- A viva voce will be conducted at the end of the semester by a three-member committee of which one is an external member. Performance in the viva will be evaluated for 25%.

A. Continuous Assessment:

(Based on submission of weekly reports/assignments)

Regularity of attendance	15marks
General Participation	15marks
Skills and Competencies	15marks
Individual Presentations	10marks
Written Reports	20marks
Total	75 marks

B. Viva Voce:

Conceptualization	5 marks
Working Knowledge	5 marks
Problem Solving Ability	5 marks
Consolidated Report	10 marks
Total	25marks

Semester III **Credit:*2***
Paper - 1

MSW 5221 SUMMER PLACEMENT

Course Description:

As a professional programme involving palliative, regulatory and correctional participation in projects of different social setting it becomes mandatory for the student to develop comprehensive field knowledge. Being a sequel to MSW 4920 PREPARATORY FIELD WORK, this course aims at enabling the students to understand the various components of professional engagement which would provides skills and competencies required for effective Social Work interventions at different levels. In order to gain a wider exposure students are encouraged to identify and join social work agencies that they may be advised to confined to one particular setting to make observations for specializations.

Course Objective:

- To familiarize with Vision, Mission, System, Processes and Objectives of the field work Organizations.
- To Develop Analytical and Assessment Skills of Social Problems at the level of Individual, Group and Community in Industry/ NGO/ Hospital settings.
- To develop Documentation Skills to ensure continuity of Service and Growth of Professional Competence in the practice of Social Work methods.

Methodology

Duration of the course will be a period of 21 days during the summer vacation after the second semester. Placements to agencies will be initiated with advice of the department. This will be done with the lead gained from preparatory field work study considering inclination of the student of the setting and convenience of the agency that would permit training and observation. The candidates will maintain the daily journal on observations that he/ she make in the field work placements which will be assessed as shown below.

Course Requirement and Evaluation:

- 20 marks will be allotted for continuous assessment.
- Regularity in attendance, keenness to participate, readiness to learn, development of required skill, ability to conceptualize and acquisition will be tested
- The functional knowledge will be evaluated on the basis of process reports, observational reports and participatory evaluation by the faculty.
- A viva voce will be conducted at the end of the semester by a committee comprising of the course coordinator, supervising faculty of the summer placement and the Director. Performance in the viva will be evaluated for 20 marks.

Continuous Assessment:

Regularity of Attendance	4 marks
General Participation	4 marks
Skills and Competencies	4 marks
Written Reports	4 marks
Individual Presentation	4 marks
Total	**20 marks**

VIVA VOCE

Conceptualization	5 marks
Working Knowledge	5 marks
Problem Solving Ability	5 marks
Consolidated Report	5 marks
Total	**20marks**

Semester III **Credit:*4***
Paper - 2

MSW 5423 BASIC COUNSELING PROCESS

Course Description

This introductory paper to Counseling will help students across the three specializations to first understand the need for exercising empathy and concerns that they will have exude in various work and life situations. The theoretical exposition and the training sessions will help the learner to develop a broad and comprehensive understanding on Counseling as a professional process not only to deal to with extremes but to gain insights on normal individuals experiencing struggles and pressures from a multidimensional standpoint. The counselor - counselee exchanges worked out in practice and mock sessions will help others in the group and observers to gain insights on effectively utilizing the techniques in their varying life contexts

Objectives

1. To offer a basic understanding of counselling as a tool for help and intervention
2. To create a platform for students to acquire knowledge of various approaches in counselling
3. To develop in students the ability to recognize the dynamics of understanding, reflecting and relating self with the system
4. To expose the learners to know the change in attitude and approach to life by studying the gaps that exist between the practices of prescriptions made
5. To assist students in comprehensively enlisting the values, norms and standards from a third person's point of view
6. To make students appreciate the counsellor's role in enhancing the investment of self
7. To understand the professional qualities and skills of a counsellor

Learning Outcome :

After the sessions of practice and a professional study on counselling, students will know about nuances of technique that they shall involuntarily develop a sense of caring for others that they will grow intellectually, morally and emotionally grow well with tender values of love, brotherhood, kindness and passion. Exposure and practice of counselling will lead to

healing of oneself and setting right the relationships others. At least a section of students are expected to become a active participants in the field of counselling, while other who do not wish so will also may stand to gain from the experiences the chances for grooming themselves better as individuals and social work professionals

Unit I Need for Lateral Care

Counseling as a concept in relation to Social Work. Emergence of professional Counseling in India with notes on offshore inputs Comparative Perspective of Counseling, Relevance in Case Work and Psychotherapy, Concept , Goals, Purpose , objectives , basic principles of Counseling

Unit II Approaches to Counseling:

Types of Counseling: For an Individual - Face to Face & Telephonic, To Group-Family & Special Group counseling. Stages in the counseling Process: Pre-helping phase –Acquainting, Diagnosing. Helping Phase – Pacing, Reframing, Initiating and Evaluating, Counseling skills. Psychotherapy in Indian context – Code of Ethics. Report Writing and Case Presentation.

Unit III Counselor - Counselee relationship

Setting for work; Space, ambience, posture, body language, gestures, mannerism. Process; Acceptance , Warmth, Responsiveness, Faith, Therapeutic relationship, Empathy , Unconditional positive Regard, congruence, types of Counseling – Individual Counseling and Group Counseling, Situational issues in counseling – Situational Crisis – Counseling the sick and bereaved –Trauma Counseling- Mental Disorders and Counseling.

Unit IV Tools and Techniques for Counseling

Assumptions of Counseling, Stages in the Counseling Process, Counseling Skills for Relationship Building and Exploration, Counseling Skills for Facilitating Positive Action, Client Centered Counseling, Rational Emotive Therapy, Eclectic Approach, Crisis Intervention with Victims of Disasters, Counseling Child Victims of Abuse.

Unit V Counseling in Different Setting:

Family , Marital and Premarital Counseling, Industrial Counseling, Educational Counseling, Crisis Counseling, AIDS Counseling, Suicidal Counseling, Grief Counseling, Bereavement Counseling, Counseling with differently-able, Rehabilitation Counseling in Schools, Colleges, Industries , Grief Counseling and Disaster Counseling , as a profession , Professional standards and ethics, Human Existential Therapy – Transactional Analysis – Gestalt therapy, Family Therapy, Marital therapy, Group Therapy.

REFERENCE:

1. Asch. M., (2000) Principles of Guidance and Counseling, Sarup & Sons, New Delhi,
2. Bark, B.C. and Mukhopadhyay (1989): Guidance and Counseling: A Manual, New Sterling publishers Pvt. Ltd, New Delhi,
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5. Nayak, A.K, (2000) Guidance and Counselling, APA Publishing Corporation, New Delhi,
6. Shrivastava, K.K.,(2000) Principles of Guidance and Counselling, Kanishka Pub., New Delhi,

Semester III
Paper - 3 **Credit: *4***

MSW 5425 DEVELOPMENT COMMUNICATION FOR SOCIAL ADVOCACY

Course Description:

This course is noteworthy and important to all students getting trained in social work because intelligent comprehension backed by effective communication is a basic necessity for any individual to make sense in this fraternity. With the internet technology holding the sway, the conventional means of communication which is slow but gives a world of opportunity for imaginations and freedom to interpret contexts takes a beating and gets neglected. On one end, the limitations of time shrinks the space for developing personal convictions and on the other side the overpowering preoccupation of the electronic media with digitalization and animation virtually robs the opportunities of inference of information via visual or image processing abilities. While the new upcoming generation wanting to recognize and reinvent itself by changing its notions of work and life's priorities, it becomes all the more important to train students in various methods in the mainstream and alternate forms of communications. With this in mind the course on *Development Communication for Social Advocacy* aims at training the students with the following objectives

Objectives:

1. The course will take upon itself the task of opening up the realm of changes that had taken place recently in the concept of handing communication
2. Student shall acquire skills and enhance their capacities for effective communication, both in traditional style and in the newer unconventional ways of exchanging information
3. Part of training will make the student effective and articulate enough that he/she shall be made to convey or express ideas with ease, style, exuberance and comfort
4. The central theme however will be that the course shall make collective and concerted efforts to devise strategies for developing communication and application tools in both traditional and electronic formats that the learner will muster the craft for social work advocacy with fair competence.

Learning Outcome

Since the practical training dwells on traditional, conventional and modern ways of dissemination of ideas, students with their enhanced capabilities of reading, writing, listening, comprehension and communication skills will be able to use folk art, mainstream print and visual media and street theatre for effectively advocating their views in community settings. In addition, efforts directed to train them to compete and complement with those who are in mainstream social advocacy.

Unit I : Media and Mass Communication

Origin of media : Functions, rolls & Impact of Media - Meaning, Elements & Functions of Mass Media - Wireless Communication & Visual Communication - A brief Introduction to Communications Models - Print, Visual and Electronic media

Unit II Nuances of Mass Media on culture

Role & Performance of Mass Media & Cyber Media - Culturalological approaches to communication - Mass communication and multicultural nuances in the postmodern world and its impact on culture - Mainstream modes of Print and visual media – A critique on populist Genre in Print media, Television and Movie - Media Education

Unit III Need for Development Communication

Development – key concepts in development: Self reliance, dependence, cultural identity, decentralization, Modernization, first world and third world needs - Concept of Development Communication: Definitions- Roles of Development Communication – Philosophy - General differences from communication – goals of communication – difference between communication for development and development communication

Unit IV Alternative Media

Alternative media: Definition and usage - Information, Education and Communication - types, relevance, effective usage - Group Media: Concept, manufacture and use of different media for a campaign - photos, posters, puppets, flash cards, street play, - Electronic Media: strengths and limitations of internet as a tool for development, use of social networking, e-databases, blogs and virtual libraries as personal spaces and resources for campaigns; Social networking: Face book, twitter, Blog, Websites and emails - Folk Media: Definition, types, problems faced in using folk media

UNIT IV Advocacy for Social Work Practice

Meaning of advocacy -Developing language for advocacy – Framework, genre, cross cultural translation, intercultural exchanges, and multicultural nuances. -Time and space for social advocacy - Pegs, leads, sound bites. - Communicating social emotions, needs and canalizing information - Dot.com societies and social activism beyond borders – Employing the latest information technology and multimedia kit

References:

Doctor, Aspie et al (1984),Basic study in Mass Communication. Mumbai: Seth Publishers.
Kumar, Keval (2004),Mass Communication in India. Mumbai: Jaico Publishing House.
Mody, Bella (1991),Designing Messages for Development Communication: An Audience Participation Based Approach. New Delhi: Sage Publications.
Poster, Mark. (1991). Post Structuralism and communication. London. Polity press

Semester I **Credit: *5***

Paper - 4

MSW 5541 HEALTH AND HYGINE

Course Description:

The aim of this course is to give the students the basic knowledge of health and impress upon them the need to advocate for personal hygiene. Efforts will be taken to orient the learners to the various concepts about health and disease. Topics covered would help the students to rationalize the initiatives at the local, national and international level through organizations, governmental and non-governmental agencies in the delivery of health protection through special projects and schemes. It also ensures the physical and physiological well being of the individual and masses. Technically the course work would also allude to concepts of Clinical & Social Epidemiology, Sociology for diseases and Medical Anthropology.

Objective:

1. To give students the awareness on concepts of health and illness that besides developing individualized concern on self, the learner will able to understand and appreciate that the discourse on *hygiene and wellbeing* merits treatment and attention as a program of national and global concern

2. To sensitize individuals on on communicable and non communicable diseases that the chances of the incidence and spread of diseases can be critically evaluated
3. To provide knowledge on the indicators of sound health and show how the various dimensions of illness can be qualified to be approached under the term *Medial Sociology*.

Learning Outcome:

On completion of course work students will have gained overall understanding of the physical well being and ailments that plague the community and will able to guide the latter on choosing to lead a healthy life with abuse of body and mind under normal circumstances and get involved in advising and rescuing sick by tendering health care advice by comparing the merits and the utility of various discourses of medicine

Unit I Health Discourses

Definition/ Determinants / Indicators of Health . Biomedical Approach from Sociological standpoint. Sociological Perspectives - Health & Body construct. Myths/taboos/beliefs/dogmas on health, Influences of Health, Disease and Illness in Pre Colonial, Colonial and Post Colonial era and Neo- Colonial understanding. Impact of Globalization on Health & Health Care

Unit II Disease and Illness

Disease and Disease Burden on Individual / Family, Allopathic Approaches to Disease _ caution/history / control / prevention / intervention, Alternate Health Traditions : AYUSH, Medicalization of natural conditions/ Issues of Technocratic Approaches to diseases.

Unit III Types of Diseases

Communicable Diseases- Political, social, economic and cultural aspects of communicable disease, Third world poverty and communicable disease. Non Communicable Diseases- Medicalisation of natural conditions, lifestyle, market, non-communicable diseases and third world disease burden. Occupational Disease- Poverty, life chances and disease distribution Deficiency Disease- vitamin deficiency and cultural factors influencing nutrition in India. Balanced Diet and Health Education.

Unit IV Health Support & Services

Blood – Composition , donation and transfusion, Blood Banks and stem cell Banks . Reproduction, Fertility and Contraception, Emergence of fertility clinics , IVF methods and Test tube babies. Brief Introduction to organ transplant and stem cells research. Common Health Hazards among Children. Mother and Child Health services. Health Care delivery system in India – Primary health centre structure and Functions.

Unit V Social Work Liasioning & Health Care

Networking with hospitals, schools, colleges, service centers, government organization, non-government organization for Accessibility Enhancement Public Private Partnership 108 emergency service, child helpline 1098, Quick Intervention _ Geographical Positioning System to identify the needs with technology / Mobile Clinics and current trends. The psycho social problems and the role of medical social worker in dealing patients with TB, STD, AIDS, POLIO, Malaria, Leprosy, Typhoid, Hypertension, Cardiac disorders, Asthma.

REFERENCES:

Banerjee G.R. (1950), Social Service Department in Hospitals – its organisations and functions, TISS, Bambay.
Goel, S.L. (1984) Public Health Administration, Sterling Publishers, New Delhi,.
Goldsteine Dora (1955) Expanding Horizons in Medical Social work; University of Chicago press.
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Minna Field (1953) : Patients are people, Columbia University Press, new Yori,
Park, J.E. & Park K (1983) Text Book of Preventive and Social Medicine; Jabalpur, M/s. Banashidas
WHO (1981) Social Dimensions of Mental Health, Geneva, WHO, Publications.
Anand K K, (1996) Hospital Management: a new perspective, New Delhi,
Vikas Publishing House.
Desai VA, (1985) Hospital Administration, Miraj, Wanless Hospital.
Francis CM (1995) Hospital Administration, New Delhi, Jaypee Brothers.
Goel SL (1981) Health care Administration – A text Book, New Delhi, Sterling Publishing House.
.Goyal, RC (2006) Hospital Administration and Human Resource Management, New Delhi, Prentice Hall India.

Semester III **Credit: *5***
Paper - 5

MSW 5543 SOCIOLOGY OF MENTAL HEALTH

Course Description

Sociological interpretations given to human expressions decide the health and well being of a system. No one lives in isolation, be it an individual, the small groups namely family or the larger ones like community, corporations or even a nation. Realizing that the interdependent factors that shape the thought process and behavior are too many, the theme of the course will be to search for reasons which determine the stability of mind, thought and action. To help the students gain a broader understanding and working knowledge in the field of Mental Health, aspects of diet, habits, customs and traditions that influence on the cognitive and emotive upkeep will be discussed. Major emphasis will be on factors such as personal, family and other societal determinants which cause distraught situations as matter of conflict of interest. In analyzing the emotional breakdown and mental disorders of individuals, aspects of delinquency, congenital disease, and habitual aberrations leading to extreme behavior will be covered.

Objectives

- To give the students an overview of human behaviour and address the issues and challenges faced in dealing with Mental health status and related concepts
- To make learners understand the various factors that contribute to well being and healthy mental status of the individual and the community and spot the instances and conditions that pose threat and lead to mental health issues
- To provide for an understanding on the community setting relating to the concept of mental health help the trainees acquire knowledge in mental disorders, stress and coping for moving towards holistic health.

- To develop skills in identifying mental disorders and conflicts in emotional health and make the students realize their duties, responsibilities and role as social work personnel in the community and Psychiatric settings.

Learning Outcome:

Inputs given in the course will widen their understanding of the student about the scope of human behavior in the medical health setting and help them carve out a specialized niche with focused job and career aspirations for a professional engagement. As competent social work specialists trained in psychiatric social setting, learners will be able to identify their responsibilities and duties that they would discharge in restoring the physical and mental health of the affected individuals during the rehabilitation and restoration process.

Unit I Concepts of Human behavior and Mental Health

Definition of Mental Health, Ability to handle tasks at different stages of human development for prenatal state adult and old adult hood, Positive Mental Health, Physiological and Sociological aspects of development, Geriatric considerations, WHO recommendations and standards, Classification of Disorders : DSM IV and ICD 11., Magnitude of Mental Health problems among women, men aged, marginalized, urban and rural population and in Disaster situations. Normality and Abnormality, Myths and Mental Illness.

Unit II Childhood, Adolescent and Substance Induced Disorders

Childhood related disorders, Adolescent and substance induced disorders, substance Abuse, Dependency , tolerance , withdrawal symptoms with reference to Cannabis, Marijuana, Cocaine, Brown Sugar, Nicotine, Caffeine , Alcohol Abuse , AA. Prognosis, Diagnosis, Characteristics, duration and treatment of sleep disorders, eating disorders, Mental retardation – I.Q

Unit III Neurotic and Psychiatric illness

The Neuroscience Perspective of Illness, Role Clarity and Consciousness of a psychiatrist and Psychiatric Social Worker, Symptoms, etiology, diagnosis, prognosis and management of Anxiety disorders, Stress disorders, Somatoform disorders, Sexual dysfunction and Paraphilias. Psychosis- Functional, Affective disorders, Organic disorders. Personality disorders, Schizophrenia, Cerebral Palsy and Epilepsy – E.Q

Unit IV Application of case study in Mental health Setting

Psycho social methods, physical methods, Pharmacological treatment. Common cultural Beliefs. Mental status Examination, Social work intervention, case intake, History, Diagnosis and prognosis with the help of professionals in psychiatric setting. Role of a Psychiatric Social worker in Clinical Settings.

Unit V Community Mental Health

Facets of Psychiatric health care and Community participation. Role of psychiatric social worker in Hospitals, Psychiatric homes, schools, Industries, orphanages, old age homes, drug rehabilitation centers, Correctional Institutions, NGO's, Counseling centers and organization. Community psychiatry, Mental Health act 1987. Social work Practices and Programmes in relation to Mental Health.

REFERENCE

Bellack A.S. (1984) Schizophrenia, treatment Management in Adult Bailliere Tindal, London.

Berrios, G.E. & Dawson J.H. (1983) Treatment and Management in Adult Bailliere Tindal, London.

Comprehensive Textbook of Psychiatry, (2008.) 3rd ed. Volumes 1 to 3, Williams and Wilkins, Baltimore / London.

American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (DSM). Washington, DC: American psychiatric association, 143-7.

Sadock, B. J., & Sadock, V. A. (2011). Kaplan and Sadock's synopsis of psychiatry: Behavioral sciences/clinical psychiatry.

Mane P & Gandevia K. (Eds.) (1993) Mental Health in India Issues and Concerns; Tata Institute of Social Sciences, Mumbai.

World Health Organization Geneva (1992) The ICD 10 Classification of Mental and Behavioral disorders. Clinical Description and Diagnostic Guidelines; Oxford University Press.

Semester III **Credit: *5***

Paper - 6

MSW 5545 DISABILITY MANAGEMENT

Course Description

The vulnerability of human to get carried away with the so called indicators of growth and prosperity makes them pay more in terms of health and happiness. Though the rapid strides of progress made in science, technology and development have undoubtedly brought sophistication and greater life expectancy, the equilibrium with which we have been living with nature is upset and this had led us to face several unprecedented catastrophes. Disability is one major issue in the health front. There are many causes and painful consequences to this. This course coming under M & P gives an overall glimpse on the assessment, management and the care given to the affected, especially the socially disabled, and briefs on efforts that are to be taken in rescuing, restoring and rehabilitating them.

Objective

- To introduce the issue of disability which is on the rise to the students and discuss with them the Causes, Types, Magnitude and Severity of various Disabilities
- To give to the students an understanding the experience of disability, limitations, strengths and potentials of persons suffering disabilities
- To inform them the methods of assessment and management of Disability and apprise them of the effort taken worldwide in tackling this issue
- To brief the learner the efforts taken rescuing, restoring and rehabilitating the socially disabled that they may be sensitized to serve in this setting

Learning outcome

The theory studied and the observational visits made in the context will help the students to develop a concern for the needy and at the same time make them realize that well being, body, mind and the various facilities with which they live is not be taken for granted. The services and reflections that would make in this setting will make them more competent. Caring and creative enough that their participation in the restoration and rehabilitation of the disabled shall turn personally and professionally rewarding

Unit I Introducing the Concept of Disability

Definition, Causes, Types, Magnitude and Severity of various Disabilities, Problems of Learning disability, Concept of impairment, disability and handicapped, Congenital anomalies and Birth defects . Early Identification of disabilities and disorders, Prevention and Management of Disability at Primary, Secondary and Tertiary Levels. Attitude of Society towards people with Disability.

Unit II Approaches towards Disability

Historical Perspective of disability; Psychological and Sociological Disability in and around India. An resume on assessment in Indian Context. Indices of social disability- Governmental Initiatives and Measures with programs on Disabilities. Understanding the experience of disability- Limitations, strengths and potentials of persons with disabilities.

Unit III Assessment and Management of Disability

Meaning, objectives, Constructs on disability and rehabilitation through various discourses. Historical, medical, social, religious, cultural, political, gender and Psychological. Assessment of disability, Concerns on Sub optimal Performances, Disability Act, Legislation, Disability benefits , allowance and Concessions in favour of the Challenged .Strategies on Disability Management. Technology Based Solutions to disability.. UNO declaration of Disability.

Unit IV Care for the Challenged

Impact of disability of individuals on families, Issue of the lifelong commitment of caregivers in coping with problems of persons with disability, Exigency at critical stages and social work interventions at each stage. Treatment and rehabilitation of physical handicaps, orthopedic disability, Visual handicap, Aural impairment and Speech disability with special mention to cleft lip and palate. Psychosocial problems and implications of handicap. Contributions of medical social worker in intervention. Physiotherapy and occupational therapy,

Unit V Rehabilitation and Restoration

Process of Rehabilitation Role of Community Involvement – Social Mobilization – Guidance – Types of guidance – net working with other service organization . Role of Social Work methods with special groups including Woman , Aged, Children , Transgender, Intersex and Genderqueer. Creating awareness. Prosthetics, fitment of aids and appliances, Corrective Surgeries. Education empowerment and support system. Vocational rehabilitation and social integration within the family and community.

References

Albrecht G.L, Katherine D Seelman. & Michael Bury, (2001) Hand Book of disability Studies, Sage, London

Karanth, Pratibha & Joe Rozario, (2003) Learning disability in India, Sage, London

Hegarty Seamus & Mithu Alur, (2002) Education and Children with special needs, sage, London,

Grant, (2005) Learning disability: A lifecycle approach to valuing people, Open University Press, London

Moore, (2005) Researching disability issues, Open University Press, London

Sanchiler, Social welfare India.

Semester III **Credit: 5**

Paper - 7

MSW 5547 BLOCK PLACEMENT FOR MEDICAL & PSYCHIATRIC SOCIAL WORK I -FIELD WORK

Course Description:

The course aims at enabling the students to understand the various components of Medical and Psychiatric social work practice and develop skills and competencies required for effective Psychiatric Social Work Interventions at clinical and community level. This will be done by deputing students for a period of 30days in field work placement in Medical and psychiatric settings.

Objectives:

- To equip the students with the necessary assessment skills to understand the Psychosocial problems of the patient and the family with reference to the consequence of the illness
- To enable the students to practice methods of social work, particularly case work and group work, dealing with emotional issue of normal individual and extreme
- To equip the students with the necessary skills in hospital administration
- To apply the methods of social work and involve the family as an Social Institution
- To accept the patient and facilitate them to function at an optimal level in spite of the mental disability

Outcome:

With the practical exposure provided to students on Medical & Psychiatric Social Work in Clinical and Community settings, the students will be professionally equipped to engage in the various job roles in the domains of Medical & Psychiatry

UNIT I: Medical & Psychiatric Social Work in Clinical setting

Case history taking and mental status examination- Disability assessment and Management- Rehabilitation Processes- therapeutic Interventions- Home visits and Referral services- Counseling in different settings

UNIT II: Medical & Psychiatric Social Work in Community setting

Community basement rehabilitation- campaigning and educational programmes- state and Mental Health- Field Research

N.B The learning situation will be both structured and unstructured. The trainee will be given various practical assignments during the placement that would enable him/her to use not only process learning methods but also various non-participant study techniques.

Course Requirements and valuation:

75% of the marks will be allotted for Continuous Assessment. Regularity in field visits, seriousness of purpose, ability for conceptualizing issues, functional knowledge in Medical and Psychiatric social work practices, application of concepts and skills in problem solving will be assessed on the basis of weekly reports. A Viva- Voce will be conducted at the end of the semester with the faculty and External Examiner. Performance in Viva will be evaluated for 25%.

A. Continuous Assessment

Nature of Project/ Assignment undertaken	- 15 Marks
Field Work Consultation and Conferences	- 15 Marks
Weekly Reporting	-20 Marks
Assessment by Training Organization	- 25 Marks
Total	**- 75 Marks**

(Regularity of attendance, willingness to take Instructions and responsibilities, learning and Problem solving ability etc.)

B. Viva- Voce

Working Knowledge in the field	- 10 Marks
Conceptualization of issues	- 5 Marks
Problem solving ability	- 5 Marks
Consolidated Report	- 5 Marks
Total	**- 25 Marks**

Semester III **Credit:5**

Paper - 4

MSW 5561 LIVELIHOOD AND SOCIAL ENTREPRENEURSHIP

Course Description

Free and fair access to life support system, livelihood options and opportunities that govern the sustenance of individual decides the standard of living. Factors such as physical, mental, family and social life of a person gives the identity to oneself in social terms. Livelihood patterns differ widely in the rural and urban living and contents of this course are chosen to provide a general understanding on Livelihood, Livelihood Frame Work, influences of Market on Livelihood and goes on to offer an insight on social entrepreneurship. With a leaning in favor of the rural life, policies, strategies and help available for managing rural entrepreneurial enterprises in India is explored.

OBJECTIVES

- To help the students know concepts of livelihood and livelihood Promotion in the various contexts
- To facilitate their understanding about the livelihood frameworks.
- To give adequate exposure and develop skills in learners to make them commit and participate developing livelihood interventions, especially in supporting and sustaining development in the rural backdrop

Learning outcome

This course aims at providing a basic foundation to rural livelihood would turn the student to have a comprehensive understanding on the themes of livelihood and entrepreneurship tilted in favor of examining opportunities in rural India that if a the learners step out for pursuing career he/she may brim with confidence in transacting business in the said domain

UNIT I

Livelihood: Concept -Meaning, Definition, Principles, Need, History and Importance of Livelihood Promotion. Livelihood portfolio of rural poor, Agriculture, Migration,

Diversification, Sectoral Approaches in Livelihoods - Livelihood promotion by different agencies, Major livelihood programs in India, Livelihood in Developing countries: Diversity and Diversification, Challenges in livelihood promotion. Case studies in Livelihood Promotion –Watershed, Animal Husbandry, Micro enterprises, Micro Finance. Government, Non Profit & Corporate Initiatives in livelihood promotion.

UNIT II

Understanding Livelihood Frame Work – Assets/Capitals – Natural, Physical, Financial, Human and Social. Vulnerability context, Policies and Process, Livelihood Strategies, Livelihood Outcomes. Livelihood Frame Work Analysis – Different models Objectives of livelihood promotion – Enhancing Income, Increasing Food Security and Reducing - Risk, Reducing variances in income, reducing migration.

UNIT III

Markets and Livelihoods: Importance of Sector, Sub sector, Value chain analysis in selecting an intervention. Understanding Rural & Urban Livelihood Linkages. Methods of Interventions – Technology, Training, Marketing, Policy Advocacy, Asserting Rights, Developing Local Economy, Credit, Infrastructure and Institution Building. Ownership and Management

UNIT IV

Social Entrepreneurship: Conceptualizing social entrepreneurship Importance of Social entrepreneurship Objectives and modes of action Indigenous entrepreneurship High profile vs. mundane and modest entrepreneurship From Social entrepreneurship to public entrepreneurship Social entrepreneurship as a political activity

UNIT V

Entrepreneurship in India : Theories and Evolution of Entrepreneurship in India.- Democratic State, Development and Entrepreneurship, Market-Economy and Entrepreneurship-Entrepreneurship – Policies and Strategies , Types of Rural Entrepreneurship - Planning a Rural Enterprise, Human Resources and Infrastructure, Arranging of Finance, Managing a Rural Enterprise, Marketing Rural Products and Services.

References:

Vijay Mahajan, SankarDatta and Gitali Thakur, (2001) A Resource Book for Livelihood Promotion,

Phansalkar,(2003) Livelihoods: Promoting Livelihood Enhancement, Mumbai, Sir Dorabji, Tata Trust.

Livelihood - Key Concepts,(1999) ICRA Learning Resources

DFID (2001) Livelihood Framework - Sustainable Livelihood Guidance Sheets

Perpetua Katepa, (2005) Sustainable Livelihood Approaches in Operation: A Gender Perspective, International Associates for Development

Semester III **Credit:*5***
Paper - 5

MSW 5563 PERSPECTIVES OF RURAL DEVELOPMENT IN INDIA

COURSE DESCRIPTION

Culturally and historically rooted largely on the agricultural plank and drawing its roots from Gandhian thinking and influences, planning in India always had had a bias in favor of villages. The texture for social work intervention in this large democratic country cannot escape rural knitting and therefore a good understanding and appreciation of the Indian rural settings must be taken into confidence in all our planning. Villages forming the major component of the Indian landscape and demography must make considerations of rural development as a keystone of planning. Rural welfare should be certainly accorded its due. For a proper justification of the social work program, this paper in planned to provide information on the life in the rural backdrop, governance and bureaucracy framework of rural development and seeks to examine at least few major rural schemes and projects that are conceived to alleviate and mitigate the existential problems of rural poor the India.

OBJECTIVES:

- To provide students an understanding on social structures, social relations and institutions in rural communities.
- To develop in them the sensitivity, commitment and skills to influence critical issues in rural communities.
- To make the learner appreciate the policies, programmes and approaches made in the context of rural community development.

LEARNING OUTCOME:

As an expected outcome student who would have developed a critical understanding of various policy initiatives, methods, strategies, and implications of various rural development plans, programs and projects in the past and present will be able to take up social work liaison as a freelance worker or by joining governmental or nongovernmental organization or an agency.

UNIT I: RURAL DEVELOPMENT

Indian Rural Setting: Structure of Rural India - Degree of Ruralisation in India, Asset Distribution, Income Distribution, Composition of rural work force – Rural Development: Concept, nature, philosophy and historical context; Meaning & Determinants; Approaches to rural community development; Rural economy – Agriculture, non-agriculture sub sector, rural craft and occupation and rural industries

UNIT II: RURAL DEVELOPMENT PROGRAMMES AND PROJECTS IN INDIA

Rural development policies and goals in India and Supportive Policies - Different Models of Rural Development – 1) Community Development Programme- History, objectives, activities and organization and outcome – CDP and introduction of panchayatiraj – critical evaluation of CDP -2) Intensive Agricultural District Programme- history, objectives, activities and outcomes- Special Group and Area Specific Programmes – the Small Farmer Development Agencies, Marginal Farmers and Agricultural Labour Scheme- the Draught Prone Area Programme – Wage, Employment and Infrastructure Development Programme – 3) Operation Floods – Genesis of Operation Floods – Amul model of dairy development and rural development – critical evaluation of methods, strategies and outcomes – 4) Integrated

Rural Development – approaches, strategies, organizational structure of implementation agencies – evaluating IRDP

UNIT III: PROBLEMS OF RURAL INDIA

Structural inequality and rural poverty; Rural employment : problems and prospects; Illiteracy; Land ownership / entitlements and alienation, indebtedness; Issues of livelihood and food security; Issues of accessibility, availability and affordability of basic services; Housing; Health; and Sanitation.

UNIT IV: RURAL GOVERNANCE AND RURAL DEVELOPMENT

Panchayati Raj Institutions: concept & Significance; Gram Sabha: Concept, Significance, Structure& Powers -People's participation in development –local self governance – understanding the evolution of the panchayatiraj system - Detailed study of 73rd Constitutional Amendment - Successful models in Panchayatiraj system – Kerala, Karnataka and West Bengal models - Emerging issues and problems relating to local self governance in India

UNIT V: BUREAUCRACY IN RURAL DEVELOPMENT

Structure & Function of Rural Development Administration - structure of rural development department – DRDA-BDO-VAO - Interfacing of Panchayatiraj institutions and the bureaucracy - Role of NGOs in rural development – NGO - State interfacing in rural development –Role of Cooperatives in Rural Development - roles Corporate involvement in development -institutional – government financing, role of public enterprises, RBI, NABARD, World Bank and IMF, Corporate etc. non-institutional - role of SHGs and community enterprise – Retail Trade practices.

References:

Singh, Katar.(1999). Rural Development Principles, Policies and Management. New Delhi. Sage Publications.

McAreavey, Ruth. (2009), Rural development theory and practice , Routledge studies in development and society, UK

Kumar, S. (2002) Methods for Community Participation: A Complete Guide for Practitioners. New Delhi: Vistaar Publications.

Reddy, G.R., & Subrahmanyam, P. (2003) Dynamics of Sustainable Rural Development. New Delhi: Serials Publication

Shah. G (1990), Social Movements in India, Sage Publications, New Delhi.

Sharma, K. L (1998) Social Stratification in India, Rawat Publications, Jaipur.

Beteille, A (1992) The Backward Classes in Contemporary India, Oxford University Press, New Delhi.

Semester III **Credit:*5***
Paper - 6

MSW 5565 NGO MANAGEMENT

COURSE DESCRIPTION:

This course aims at introducing the students of development management specialization, the concepts and principles involved in managing non-profit organizations, particularly Nongovernmental Organizations (NGOs). The need for establishing NGOs and the context with the ways and means of managing a nonprofit agency will be narrated. The organizational structure, the frame and terms of references made within and between agencies of similar kind functioning within India and abroad will be adequately covered. In order that the students are slated to join and agency without any lag or snag or start a NGO of their own, training on Resource Mobilization and Finance Management will be accorded as part of the course.

OBJECTIVES:

- To make the student understand the need to float the development organizations like NGO's as part of a civil society initiative
- To develop skills in learners and train them in planning and management of NGO's & NPO's
- To enable the boys and girls touch base with contemporary development through discourses and equip them to develop suitable strategies for community intervention and development via NGO movement.

OUTCOME:

On successful completion the enrichment of knowledge on the structure, development and establishment of NGOs and acquiring skills for effective managing and administering NGO's & NPO's, social graduates leaving the portals of this institution will be able to mobilize funds from various sources and take upon them the responsibility of organizing development management projects.

UNIT I NON-GOVERNMENTAL ORGANIZATIONS

Non-Governmental Organizations: Classification. NGO as Organizational Entities: Non-profit agency as modern organizational forms – NGOs as nonprofit organizations involved for development work - Common denominators and overlaps in Business, Public and Non-profit managements.

UNIT II CONTEXT AND NEED FOR MANAGING NGO'S

Locating NGOs – Voluntarism and Civil Society – the Third Sector -Development aid and resources – Need for effective and responsible utilization – Neo-liberal understanding of service delivery. NGO – State relationship – Interfacing with community based organizations - Other NGOs and CSOs – Networking, Partnering, Collaborating, etc. - Relating to market and business – NGO – Corporate relationship

UNIT III: ESTABLISHING AN NGOS

Registration and Establishment of NGOs –need for Legal **framework:** rational structure of Non-profits – Trusts, Societies and Companies – Special reference to Trust Act, Societies Registration Act and Company's Act (Sec. 25) - Bylaws Preparation and Legal Status of NGO - Monitoring Mechanism adopted by Governments - FCR Act – Administration &

Policy Making: Membership Classification, Aims and Objectives of the Executive Committee, Office Bearers and Governing Counsel, and Rights, Power and Duties.

UNIT IV: ORGANIZATIONAL STRUCTURE AND MANAGEMENT

Vision, Mission and Goals in NGOs Translating vision and mission into action – Role of Strategic Planning – Operational Goals, Programmes and Projects - Division of responsibility, authority and power relations - Decision making – Participation, empowerment, team work and ownership - Voluntarism, Individual Autonomy and Organizational Accountability - Transparency and Stakeholder Accountability - Knowledge Generation and Management Leadership styles and skills suited for NGOs - Building the HR competencies in NGOs – Identification and acquirement of right competencies and skill sets, Training and Development and Performance Appraisal of NGO staffs

UNIT V: RESOURCE MOBILIZATION AND FINANCE MANAGEMENT

Non-Financial Resource – Natural Resources, Physical Resources– Human Capital Resources and Social Capital - Financial Resource – Institutional and Non-Institutional sources of funding – National and International – Fund raising strategies – Foreign contributions – Statutory Obligations - Basic Accounting principles and concepts - Preparation of Financial Statements -Non-Trading Accounts - Office management: record keeping and documentation, File upkeep and maintenances, Publicity and public relations.

REFERENCES:

- Brody, R. 2004 ***Effectively Managing Human Service Organizations***. Sage Publications
- Drucker, P.F., 1992, ***Managing the Non-Profit Organization: Principles and Practices.*** Harper Business
- Fowler, Alan. (1997). ***Striking a Balance - A Guide to Enhancing the Effectiveness of Non Governmental Organizations in International Development.*** *London. Earthscan Publications Ltd.*
- Julie Fisher, (2003) ***Governments, NGOs and the Political Development of the Third World,*** Jaipur: Rawat Publications.
- Kandasamy, M., (1998) ***Governance and Financial Management in Non–Profit Organizations***. New Delhi: Caritas India.
- Kilby, Patrick, (2011), ***NGOs in India : the challenges of women's empowerment and accountability,*** Routledge contemporary south Asia series, London and New York

Semester III **Credit: *5***

Paper - 7

MSW 5567 - BLOCK PLACEMENT FOR DEVELOPMENT MANAGEMENT I-FIELD WORK

Course Description:

The course aims at training the students build their own skills and competencies required for Development Sector. This will be done by organizing field work placements in NGOs and other Development agencies for a period of 30days.

Objectives:

- To study the rural and semi-rural life pattern in all its ramifications
- To train students in dealing with the Group Dynamics and Power Structure in a Rural Community.
- To develop an understanding of the process of program formulation and program management for the benefit of rural folk

- To formulate program management of the rural local bodies, government and n-n-government agencies
- To develop a positive attitude to work in rural community setting and enable students develop as competent individuals in public relations, fact findings, leadership, networking, fund raising, budgeting, report writing, lobbying an advocacy required for a development worker

Outcome:

Enlightened students would have acquired knowledge about NGOS, their style of functioning, their way of addressing social issues. The learner on completion of this course will be equipped for advocacy and lobbying and would have developed the skill of report writing

UNIT I: NGO and the Community Interface

Peoples' Constituency- Community structure- Current problems and issues- Relationship with CBOs- Entry strategies- Sustaining relationships- Community perceptions- Exit strategies

UNIT II: NGO and the State

Collaboration with the state- State sponsored projects-State- NGO relationships - problems in autonomy and Critical collaboration- Evaluating NGO Experiences

UNIT III: Networking

Understanding networks- Partnering and collaborations- NGO collectives- Nodal agency roles

UNIT IV: Advocacy

Role in advocacy- Methods and strategies adopted

UNIT V: Knowledge Management

Documentation- Research and knowledge generation- knowledge dissemination methods
N.B The learning situation will be both structured and unstructured. The trainee will be given various practical assignments during the placement that would enable him/her to use not only process learning methods but also various non-participant study techniques.

Course Requirements and valuation:

75% of the marks will be allotted for Continuous Assessment. Regularity in field visits, seriousness of purpose, ability for conceptualizing issues, functional knowledge in NGO Management, application of concepts and skills in problem solving will be assessed on the basis of weekly reports. A Viva- Voce will be conducted at the end of the semester with the faculty and External Examiner. Performance in Viva will be evaluated for 25%.

A. Continuous Assessment

Nature of Project/ Assignment undertaken	- 15 Marks
Field Work Consultation and Conferences	- 15 Marks
Weekly Reporting	-20 Marks
Assessment by Training Organization	- 25 Marks
Total	**75 Marks**

(Regularity of attendance, willingness to take Instructions and responsibilities, learning and Problem solving ability etc.)

B. Viva- Voce

Working Knowledge in the field	- 10 Marks
Conceptualization of issues	- 5 Marks
Problem solving ability	- 5 Marks
. Consolidated Report	- 5 Marks
Total	**- 25 Marks**

Semester III **Credit:5**

Paper - 4

MSW 5581 PRECEPTS AND PRACTICES OF HUMAN RESOURCE MANAGEMENT

Course Description:

The main objective of this course is to prepare the students for management and administrative positions in various industrial, businesses, governmental/ non- governmental organizations and service sector organizations

Objectives:

- To help students acquire knowledge in Human Resource Management.
- To understand the various functions of Human Resource Management.
- Develop managerial skills in different functional areas of management
- applying conceptual and behavioral skills
- Develop sound theoretical base in various concepts to enable the students to have a broad perspective of the management field
- Understand the relationship of HR strategy with overall corporate strategy

Outcome:

This course will provide a proper understanding of the basic concepts and sub-systems of HRM. It will also render in-depth knowledge about Strategic HRM and the skill and ability to manage the personnel in any dynamic organization

UNIT I: HRM as a concept and approach

Meaning of the term and Definition-Scope- Nature, Function and objectives of HRM, Role of HRM- Administrative role- Operational and Employee Advocate role- Strategic role, HRM in new millennium

UNIT II: Human Resource Planning (HRP)

HRP- Introduction, Definition, Objectives, Nature and need for Human Resource Planning in Organizations- Importance of HRP- Various factors affecting HRP- HRP Process- Requisites for successful HRP and Barriers to HRP

UNIT III: Job Analysis and Job Design

Definition- Steps in Job Analysis- Job Description – Writing Job Description- Job specification, Job Design- Methods of Job Design: Job Simplification- Job Rotation- Job Enrichment- Job Enlargement

UNIT IV: Recruitment and Selection

Recruitment - Meaning of the term and Definition- Factors affecting Recruitment: Internal and External Factors, Sources of Recruitment: Third Party Method, Direct Method and Indirect Method, Selection- Procedure for Selection- Selection Decision Outcome, Placement- Orientation and Socialization

UNIT V: Shaping of Pay and Perks

Objectives of Wage and Salary Administration- Factors affecting Wage and Salary Administration, Methods of Wage Payments: Time-rate Wage system, Piece-rate Wage system, Balance and Debt system, Various Modes of Compensation: Wage and Salary, Incentives, Fringe Benefits, Non- Monetary Benefits

UNIT VI: Strategic Human Resource Management (SHRM)

Introduction- Definition- Innovations in SHRM- Rationale for SHRM- Aligning HR with Business strategy- Model of SHRM- Changing from traditional Practices to SHRM- SHRM in Third World Countries – IHRM.

References:

1. Bhargave.P.P (1990) – Issues in Personnel Management Citizenry, Printwell Publishers, Jaipur
2. Fisher (1997)- Schoenfeldt Human Resource Management Development, Houghton Mifflin Publishers, Boston
3. Chatteljee & Bhaskar (1999) - The Executive Guide to Human Resource Management , Excel Books, New Delhi
4. Chatterjee. B (1999) - Human Resource Management: A Contemporary Text, Sterling Publishers, New Delhi
5. Cary. L. Cooper (2005)- Reinventing HRM Challenges and New Directions, Atlantic Publishers
6. Mrudula.E & Ramani.V.V (2007)- Emerging Trends in HRM: Sectoral Experiences, DGM Icfai Books
7. Ila. A (2014)- New Dimensions of HRM, Adhyayan Publishers

Semester III **Credit:5**

Paper - 5

MSW 5583 INDUSTRIAL RELATIONS AND LABOUR LEGISLATIONS

Course Description:

With industry and industrial development surpassing the concerns evinced on agriculture, bulk of the work force is left with no option but to settle for their work and career only in the industrial setting. Lopsided distribution of capital leaving them in the lurch without the basic resource or knowledge, industrial labor has only limited scope for articulating their demands and rights. Though this may give a width for the management to enforce their ideas with limited or no restriction, the chances that the lack of devotion to work and complacency in turning the skills to results could dent productivity. Therefore our ways of looking at industrial relations merits a closer study and thus this course is arranged to provide a better knowledge on Employer-Employee relationship in context market expectations and laws enforced by the State.

Objectives:

- To make student undertake first a broad based study on industrial setting in the context of interpersonal relationship seen as an important organizational requirement
- To enable the learner understand the trends and dynamics between the different segments in the organization
- To make develop skills the knowledge to study the various statutory/ legal aspects influencing the organization
- To enable students to make a detailed study of the basic provisions of labour enactments
- To stimulate their thinking on rationale behind the Laws that were etched to suit various socio-cultural settings and train them in customizing or suggest modifications to the same making intelligent inferences for the context prevailing.

Learning Outcome:

On studying and reflecting topics presented in this course the learner would have nurtured skills and talent for quality liaison by putting to use the holistic knowledge he/she had gained on trends in Industrial relations in India and elsewhere, especially in the context of referring and responding to relevant labor legislations.

UNIT I: Industrialization: A Backdrop

Industry as a device for development- Capitalist, Communist, Socialist insights, Major Indian Industries, Industrial Relations (IR)- Introduction-Meaning and Definition, Forms of IR – Individual Relations, Workers Participation in Management, Collective Bargaining, Trade union, Machinery for settlement of Industrial Disputes, Unfair labour Practices, Disciplinary Policy and Procedures Approaches to IR- Unitary Perspective, Pluralistic Perspective, Marxist Perspective, Significance of good IR Practices

UNIT II: Employee- Employer Disputes and Discords

Trade Union- Definition, Objectives and roles of Trade union, Functions- Militant, Fraternal, History and Growth of Trade union – Rights and Liabilities- Central Trade union Organizations in India, Employers' Organization- Objectives, Structure and Activities

UNIT III: Indian Constitutional Provisions

Legislations Related to Work Conditions: Factories Act, 1948- The Contract Labour (Regulation & Abolition) Act, 1970, Legislations Pertaining to Women- Maternity Benefit Act, 1961

UNIT IV: Industrial Relations

Legislations Related to IR- The Trade Union Act, 1926 and The Trade Union (Amendment) Act, 2011- The Industrial Employment (Standing Order) Act, 1948- The Industrial Disputes Act, 1947

UNIT V: Social Security and Wages

Legislations Related to Wages- The Payment of Wages Act, 1936 and The Payment of Wages (Amendment) Act, 2005- The Payment of Bonus Act, 1965 Legislations Pertaining to Social Security- The Workmen's Compensation Act, 1932 and The Workmen's Compensation (Amendment) Act, 2009- The Employee State Insurance Act, 1948 and The Employee State Insurance (Amendment) Act, 2010- The Employees Provident Fund and Miscellaneous Act, 1952 and The Employees Provident Fund and Miscellaneous (Amendment) Act, 1996, The Payment of Gratuity Act, 1972

References:

1. Madhusudhana Rao. M (1986)- Labour Management Relations And Trade Union Leadership, Deep and Deep Publishers, New Delhi
2. Lal Das. D. K (1991)- Personnel Management, Industrial Relations and Labour Welfare, Y.K. Publishers, Agra
3. Tripathi.P.C (1994)- Personnel Management &Industrial Relations, Sultan Chand Publishers , New Delhi
4. Arora. M (2005)- Industrial Relations, Excel Book Publishers, New Delhi
5. Padhi.P.K (2012)- Labour and Industrial Laws, PHI Publishers
6. Sharit Bhowmik (2012)- Industry, Labour and Society, Orient Blackswan Publishers
7. Kumar. H. L (2013)- Labour Laws Everybody Should Know, Universal Law Publishers

Semester III **Credit:*5***

Paper - 6

MSW 5585 – ORANIZATIONAL BEHAVIOUR

Course Description:

Seen form the point of view of interpreting organization as not mere assemblage of individualized or superficial amalgamation care will taken to define an organization from a functional standpoint viewed at diverse angles. On slating an organization or an institution as dynamic cohesive entity, the course will provide knowledge on various aspects organizational behavior relationship and the Organizational Culture in the Sociological Context. The stress and strains of organizational dynamic and the newer concepts advocated for streamlining professional competent behavior for ensuring good and rewarding industrial relationship will also be examined.

Objectives:

1. To help students to build knowledge on appropriate and good Organizational Behavior.
2. To enable the students to perceive and develop the attitudes required for the successful application of organizational Behavior
3. To assist them to acquiring skills appropriate needed for field practices that are to be followed in the organizational setting.

Outcome:

This course shall secure the knowledge about the types, nature and the issues of Organizational behavior that the student will gain insights on effectively handling the processes OB in India and push it to up to match international standards.

Unit. I Organizational Behavior:

Nature, History, Models- Contributions of Hawthorne studies. System views of Organization level of analysis (Individual, group and organization). Organizational Effectiveness, Organizational Climate

Unit . II Human Behaviour at Work:

Individual differences of attitude, Job satisfaction, morale, motivation & models of motivation, Theories; Herzberg, Alderfer, Porter and Lawler, Vroom, McClelland.

Frustration and conflict, stress management and effective communication-Transactional Analysis, Johari Window.

Unit . III **Organizational Dynamics:**

Leadership; process, style, types and theories; Fiedlers Contingency Model, Managerial Grid, Redding.s Groups in Organizational ;Nature, Cohesiveness, group dynamics; dynamics of group formation-organizational change: process, resistance to change, Planning and Implementation.

Unit . IV **Human Engineering**

Man- machine tussle, Human factors in engineering and its application, Job Design and Human Work elements and Modern Organization Design. Employee counseling, Japanese Style of Management-5S, Kaizen and Six Sigma and its applicability.

Unit . V **Organizational Culture in the Sociological Context**

Meaning and characteristics, Challenges, Organizational socialization process, Function and effects, role of leaders, Assessing organizational culture, changing organizational culture, developing a global organizational culture. Occupational hazards social work at workplace environment.

REFERENCES:

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Keith Davis(1993): Human Behaviour at Work McGraw Hill New York
Lawler, Porter L.M (1975) Behaviour in Organizational McGraw Hill, NewYork ,
Lewll L.N. and Reitz H. J Group Effectiveness in Organization in Organization, Glenview I.L: Scott foreman
Ouchi W.G(1981): Theory .How American business can meet the Japanese Challenges, Addison West.
Prasad L.M (1996) Organizational Behaviours.Chand &Co.
Schein Edgar (1970) Organizational Psychology, Englewood Cliffs NJ, Prentice Hall,
Stephen Robins: Organizational Behaviour PHI, New Delhi, 1993
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Semester III **Credit:5**

Paper - 7

MSW 5587 BLOCK PLACEMENT FOR HUMAN RESOURCE MANAGEMENT I-FIELD WORK

Course Description:

The course aims at enabling the students to understand the emerging trends and concepts in HR practices and hone skills and competencies required for effective HR interventions. This will be done by organizing field work placements in Industrial settings for a period of 30days.

Objectives:

- To familiarize the organizational process in view of understanding its implications on personnel policies and programmes either in the manufacturing or service sector
- To assess the relevance of structure and functions of HR department from the employee and labor perspective
- To develop necessary HR competencies to collaborate with other departments specific to the industry/ organization
- To develop insight into the value addition by the HR department to further the business goals of the company

Outcome:

On successful completion of the course the students will confidently deal with the business processes underlying manufacturing and service industries and gain knowledge in utilizing and managing human resources for the betterment of the organization

UNIT I: Issues and Practices in Industrial Relations

Legal basis of IR- applications of trade Union Act- ID Act etc.- Trade unionism- Issues of changing roles- Industrial dispute and dispute settlement procedures- grievance handling procedures- Collective barraging- Nature and changing patterns- Negotiation- Conciliation- Arbitration in industries

UNIT II: OD Interventions

Steps and processes in organizational change- Employee participation and empowerment- organizational restructuring- job redesigning- OD interventions such as TQM, ISO, QC, QWL etc.

UNIT III: Social Work Interventions in Industry

Industrial counseling- Employee family welfare programmes- Community development projects- Collaborating with government and non- government organizations-Social responsibility of industries

N.B The learning situation will be both structured and unstructured. The trainee will be given various practical assignments during the placement that would enable him/her to use not only process learning methods but also various non-participant study techniques.

Course Requirements and valuation:

75% of the marks will be allotted for Continuous Assessment. Regularity in field visits, seriousness of purpose, ability for conceptualizing issues, functional knowledge in HR Practices, application of concepts and skills in problem solving will be assessed on the basis of weekly reports. A Viva- Voce will be conducted at the end of the semester with the faculty and External Examiner. Performance in Viva will be evaluated for 25%.

A. Continuous Assessment

Nature of Project/ Assignment undertaken	- 15 Marks
Field Work Consultation and Conferences	- 15 Marks
Weekly Reporting	-20 Marks
Assessment by Training Organization	- 25 Marks
Total	**- 75 Marks**

(Regularity of attendance, willingness to take Instructions and responsibilities, learning and Problem solving ability etc.)

B. Viva- Voce

Working Knowledge in the field	- 10 Marks
. Conceptualization of issues	- 5 Marks
. Problem solving ability	- 5 Marks
Consolidated Report	- 5 Marks
Total	**- 25 Marks**

Semester IV **Credit:*4***
Paper - 1

MSW 5422 DISASTER MANAGEMENT

Course Description:

The surge of changes witnessed in seismic and geo-climatic conditions exposing the vulnerability of human survival, makes a case for cutting out space for proposing a special discourse on Disaster Management. Considering the gravity of situation created and the magnitude of strike which is huge, be it from natural environmental catastrophes or calamity caused under anthropogenic influence or man-made reason, a course offering the knowhow Disaster Management Method only stands justified. As the social implications are too much and too deep at every such instance, contents of this course would help students to come to a grip of the context and help them assume leadership roles in equipping for Disaster Preparedness and also in handing the crisis which is imminent.

Objectives:

- To make students realize that Disasters, Catastrophes and Calamities are prone to occur in the fast paced changing world that cuts into create disturbances in eco balance
- To enable students to gain knowledge on key concepts and approaches of Disaster Management
- To develop the cognitive ability to analyze factors contributing to disaster and develop an understanding on the process of Disaster Management
- To help them realize this is one major area of engagement from both the national and international perspective and that it is expected of them to approach the crisis with a multi faceted approach
- To impress upon the learner to understand the role of science and technology in predicting and dealing with the methods in Disaster Management

Outcome:

By securing knowledge about the types, nature and the impact of disasters, the student who would rescuer or planner of rehabilitation will be able to offer invaluable service and leadership to deal with contingency and develop a broader understanding on team building for group engagement during differ_stages of Disaster Management, Relief and Rehabilitation.

UNIT I: A Perspective of Catastrophes and Disasters

Disaster- Meaning of the term and Concepts Types of Disasters: Famine, Floods, Tsunami, Cyclone, Hurricanes, Earthquake, Volcanoes, Landslides, Snow Avalanche, Fire, Forest Fire, Warfare, Epidemics, Community/Ethnic clashes.

UNIT II: Prediction and Forecasts

Disaster prevention and preparedness- Vulnerability Assessment, disaster Risk Reduction, Hazard Assessment, emergency Operation Plan, Capacity assessment, Public Awareness and education- Rationale for community based Approach, Stakeholders' Roles and Responsibilities.

UNIT III: Dealing with Exigency

Response and Recovery Introduction- Aims- Disaster Response Activities- Traditional and Modern methods, Disaster Recovery- The Recovery Plan- Disasters as opportunities for Developmental Initiatives-Rehabilitation and Reconstruction

UNIT IV: Impact of Disasters

Disaster associated health Issues- Emergency Health services And communicable diseases, Infrastructure in accessing emergency situation- Risk factors- Challenges and constraints, Promoting Health and Hygiene through a sanitation programme, Physical Impact- Infrastructure, Transportation, Gas and oil storage, Communication, Electricity, Water, security, Social Impact- Welfare- Economic Impact, Animals in Disaster, Emotional Impact- Trauma and Counseling National and International donor agencies- NGOs, Institutions in Disaster Management and relief

UNIT V: Role of Technology in Disaster Management

Emergency Management Systems(EMS)-Introduction – Uses- Types of EMS-EMS and the Disaster Management Cycle, Geographic Information System(GIS)-Advantages- GIS and the Disaster Management Cycle, Global Positioning System (GPS) and the Disaster Management Cycle, Remote Sensing and the Disaster Management Cycle

References:

1. Anderson.M & Woodrow.P (1998)- Development Strategies in times of Disaster, ITDG Publishing, London
2. Deshpande.B.G (1996)- Earthquakes –animals and Man, JAC Trust, Gurgaon
3. Hejimans. A & Victoria. L (200)1- Citizenry- Based and Development- Oriented Disaster Response, centre for Disaster Preparedness, Philipines
4. Tearfund (2004) Development and Risk Reduction in the Indian state of Andhra Pradesh: A Case
5. Abarqquez. I & Murshed. Z (2004) Community- Based Disaster Risk Management: Field Practitioners' Handbook, Asian Disaster Preparedness Centre,New Delhi
6. Murthy.D.B.N (2007)- Disaster Management: Text and Case Studies, Deep and Deep Publishers, New Delhi

Semester IV **Credit:*6***

Paper - 2

MSW 5624 PROJECT WORK

Course Objective:

This course aims at practically orienting students in the application of research methods and techniques and to develop skills of analysis and reporting. This is done by encouraging students to identify researchable problems in their areas of specialization and do independent field study projects.

Course Requirements and Evaluation

1. The duration for the study project is for one semester.
2. The students shall submit the report in a prescribed form on or before a specified date, failing which will warrant disqualification.
3. The student shall work under the close supervision of and consultation with the faculty guide appointed for the purpose at every stage of the work and get necessary approvals.
4. The faculty advisor shall be responsible for the continuous assessment of the course and his/her recommendation for final evaluation of the project shall be mandatory.
5. 75% of the marks shall be allotted for continuous assessment. Continuous assessment shall be made on the following basis by the faculty advisor:

   A. Continuous assessment

Participation in Research workshops	15 marks
Consistency of involvement and meeting deadlines	15 marks
Individual presentations	20 marks
Ability for independent work	25 marks
Total	**75 marks**

6. Remaining 25% of the marks shall be allotted for Terminal Evaluation on successful completion and submission of the Project Report in the **prescribed format - 40 pages in A4 size paper excluding tabular columns, graphs etc.,**
7. **The Project Work has to be duly recommended by the faculty advisor and the Head of the Department for appearing in the final Viva Voce.**
8. **The Viva Voce shall be conducted by a three-member committee of examiners of which one is an external member.**
9. 25% of the marks allotted for the Viva Voce will be assessed on the following basis:

Problem identification and conceptualization of the Research Question	5 marks
Review of Literature	5 marks
Effort taken in collecting data	5 marks
Innovative methods and techniques used	5 marks
Analysis, Conclusion & Reporting	5 marks
Total	25 marks

Any proven case of plagiarism will warrant disqualification.

Semester IV **Credit:5**
Paper - 3

MSW 5542 MEDICAL SOCIAL WORK

Course Description

This course coming as a paper of specialization to the student who intends training in the field of Medical and Psychiatry aims at providing a concise but comprehensive opening to the medical settings. It will highlight and show the student the realm of medical social work with a special task of identifying the opportunities and spaces exclusively available for a trained social worker to be involved in augmenting the health care delivery in India and elsewhere. It would define the job role which is different from the physicians and medical doctors, and all those involved in routine Hospital and Public Administration. A learner who completes the course is expected to be equipped to take his /her own cut and capitalize on by further training for engagement in any specialized avenue of the medical science.

Objectives:

- To sensitize students about the significance of the novel and noble field of medical social work
- To make the learner understand the psycho- social and economic implications of illness and the prospects and problems connected with health care delivery and services.
- To provide an understanding on the medical setting in general and learn the functioning of the health care dispensations from the state and peoples perspective.
- To train students understand the plight of the sick individual and pitch in to alleviate the anxiety and nervousness of the caring kin.
- To appraise on the role and need of social worker that as trained hand he/she may act as perfect interface between the various constituent namely the patient, the supporting family, physician ad supportive staff including the officials handing insurance that no one feels betrayed or panic in the insurgent situation

Learning Outcome:

On successful completion of the course work prescribed the learner will be able to develop and exercise a sense of empathy and the same time will not let themselves in getting trapped by buckling under pressure. Gaining good and comprehensive understand on the role and duties, the learner will be equipped well while working as a team to tide over adversaries. With the job roles and knowledge to deal with the situation given, the trainees as medical social worker will be all set to be involved in advising the needy and engage in advocacy in the heterogeneous arena of health setting.

Unit I Historical Lineage

Definition, concept, objectives, its nature and scope. The roles and functions of medical social worker, Historical development in India and Abroad. Epidemic, Pandemic and pre and Post war Conflicts as Factors for Human Migration.

Unit II Need for Medical Social Work and its Expanse.

Psychological social and economic implications of illness for the patient and his / her family Concept of patients as a person , patient as a whole, role of a social worker as a member of a multidisciplinary team . Role and need of social worker in handling issues related to monetary dimensions – Claims, Settlement of Bills, Health Insurances, and in Ensuring Fair Practices in Health delivery from stages of Diagnosis to Discharge.

Unit III Issues of Sociological Concern

Tumors' and Malignancies – Cancer Breast Cancer, Cancer Cervix, Cancer Prostrate , Leukemia and types *Concerns of Support System* – Clean Air , Water and Food – Malnutrition , Overeating and Junk foods, A focus on Organic and Inorganic *Premature Ageing* – Shifts in Reproductive Cycle and problems related to it . Gender Bias issues, Sex determination, Child mortality and Maternal Mortality Concerns. Medico Social implications on Violence against Women , Pollution related Hazards, Alcoholism and Substance abuse.

Unit IV Public Health and Preventive Medicine

Levels of prevention, primary, secondary and tertiary prevention. Importance of nutritional constituent of food, balanced diet, nutritional deficiency diseases and preventive measures, problems of mal nutrition and measures to tackle it. Medical Camps Campaigns and Schemes with Specific Targets (JSSK) , (IMNCI), (NSSK) , NRC , ARI, Sensitizing People about instances of Disease Outbreak , H1N1, Swine Flu, State Hospital Network , Role of

PHC in Rural Health, ICMR and its Functions. WHO Initiatives for the Third world Nations and India.

Unit V Palliative Care

Role of medical Social worker. Outpatient unit, in patient unit, Intensive care unit. Pediatric ward, maternity ward, maternity ward, abortion clinics, Family Planning center, std clinic, HIV clinic , orthopedic department, Cardiology department , Blood bank , Hansenorium ,Leprosy Homes, TB sanatorium, Hospices and cancer hospitals . Training the volunteers to work with the chronically ill in the community that includes TB, STD, AIDS, POLIO, Malaria, Leprosy, Typhoid, Hypertension, Cardiac disorders, Asthma. Scope and Limitations of Medical Social Work Practice.

REFERENCE

1. Anderson R. & Bury M. (eds) (1988), **Living with chronic illness – the experience of patients and their families,** Unwin Hyman, London.
2. Bajpai P.K. (ed.) (1997), **Social Work Perspectives in Health,** Rawat Publications, Delhi.
3. Barlett H.M. (1961), **Social Work Practice in the health field;** National association of social workers, New York.
4. Crowley M.F., (1967), **A New look at nutrition;** Pitman Medical Publishing Co., Ltd., London.
5. Field M., (1963), **Patients are people – A Medical – Social Approach to Prolonged illness;** Columbia University Press, New York.
6. Gambrill. E. (1997), **Delhi Social work in the 21st century,** Pine forge press, New Delhi.
7. Golstein D., (1955), **Expanding horizons in medical social work,** The University of Chicago Press, Chicago.
8. Pokarno K.L., (1996), **Social Beliefs, Cultural Practices in Health and diseases;** Rawat Publications, Delhi.

Semester IV **Credit:*5***

Paper - 4

MSW 5544 PSYCHIATRIC SOCIAL WORK

Course Description

As a sequel to the course on Medical Social Work, the paper confines to the discourses on the issues that individuals and community faces in the field of Psychiatry. The theme of the course is to stress upon the need and the dictum that stability of mind, thought and action is imperative to the well being of community and effective functioning of a healthy society. To help the students to gain a broader understanding and the working knowledge to specialize in the field of Mental health, various aspects of diet, habits, culture and practice that would determine the cognitive and emotional upkeep will be informed in the first part of the course while the major emphasis will go on the causes, effects, personal family and societal consequences of the consequences for emotional breakdown and mental disorders. Aspects of delinquency, congenital disease, habitual aberrations and extreme behavior will also be covered with the intent that student will be prepared to equip and engage in finding meaningful remedy and solution to this vexing and growing problems.

Objectives

- To give the students an overview of the issues and challenges faced in dealing with Mental health status and related concepts and the community

- To make learners understand the various factors that contribute to well being and healthy mental status of the individual and the community and spot the instances and conditions that pose threat and lead to mental health issues
- To provide for an understanding on the community setting relating to the concept of mental health help the trainees acquire knowledge in mental disorders, stress and coping for moving towards holistic health.
- To develop skills in identifying mental disorders and conflicts in emotional health and make the students realize their duties, responsibilities and role as social work personnel in the community and Psychiatric settings.

Learning Outcome:

Inputs given in the course will widen their understanding about the scope medical health setting and help them carve out specialized niche with focused job and career aspirations for a professional engagement. As competent social work specialists trained in psychiatric social setting, learners will be able to identify their responsibilities and duties that they would discharge in resorting the physical and mental health of the affected individuals during the rehabilitation and restoration process.

UNIT I Grooming for Psychiatric Social Work

Defining Psychiatric Social Work, Historical development in India and abroad. Scope of Psychiatric Social Work practice: Roles and functions of a Psychiatric Social Worker. Prevailing Mental Health Problems and exploring the space for intervention.

UNIT II Diagnosis & Intervention

Early Signs of drift and characterizing deviation, Norms and Anormic Behaviour, Case Work and Group Work practice in Psychiatric settings; Components of Case Study, & Group Work. Compiling & Filing of case sheets and reports, Types of Diagnosis – Deciphering a case report from a Clinical Stand. Case Conference, Case Management/ Need Assessment.

UNIT III Therapies

Cognitive Therapy, Group Psychotherapy, Family Therapy, Marital therapy: Scope and types. Behaviour therapy: Principles and techniques: ECT, Chemotherapy, Psycho surgery and Mega vitamin Therapy; Occupational Therapy (Purpose and Concept). Group Therapy/ Relaxation Therapy/ Clinical Hypo Therapy / Clown Program. Music & Dance forms as Therapeutic Milieu

UNIT IV Polices & Legislations on Mental Health in India

Mental Health Act, Disability Act, National Mental Health Policy for India, Mental Health Care Services, Role of Governmental & Non Governmental Initiatives in supporting the rehabilitation process. Medico legal Issues, Training for Psychiatric Social Work in India, Projects & Research in Mental Health both National & Global

UNIT V Psychiatric Rehabilitation – Restoration to normalcy

Role of the Social Worker in – rehabilitation, in planning, mobilization, reintegration of the patient in the family, community, Half Way Homes and Day Care Centers . Responsibility of the Family & Community towards restoration of Normalcy. Occupational opportunities for Integration into Main stream. Limitations and difficulties faced in Psychiatric Social work practice.

References:

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Bellack A.S. (1984) Schizophrenia, treatment Management in Adult Bailliere Tindall, London.
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Goel SL (1981) Health care Administration – A text Book, New Delhi, Sterling Publishing House.
Goyal, RC (2006) Hospital Administration and Human Resource Management, New Delhi, Prentice Hall India.

Semester IV **Credit:*5***
Paper – 5

MSW 5546 HOSPITAL ADMINISTRATION

Course Description

With medical tourism and Hospital Management emerging as contemporary avenues of interest in the marketized world that has only virtual boundaries, social workers and social work professionals cannot simply brush aside the stark truth and be complacent without addressing its impact on the multifarious dimensions of life. Though courses covered in the MA social work curriculum alludes to certain community and social issues that comes as package with liberalization, privatization and globalization, a curriculum that had leaning with medical and psychiatry specialization cannot remain mute by not making discourse on Hospital Administration, and hence this course.

Objectives :

- To educate students on the need of dealing with diseases and health disorder in Hospital settings and teach them fundamental concepts of setting up and managing a hospital
- To provide a wider panoramic view on hospital organization and the health services rendered through well managed hospital administration.
- To help the students in learning about various Hospital departments and the direct and axillary services offered through them.
- To inform students about the administrative procedures, record keeping and service references made by and through hospital.

- To entrain students in gaining foothold in ensuring that Quality Assurance in Hospitals is not sacrificed or dealt with a skewed and lopsided approaches.

Learning Outcome

The student on completion of the course will becoming an able hospital administrator as he/she would have been adequately informed about the Intricacies involved in establishing, heading and governing the hospital and departments transcending the space and time barriers. With the rounded inference drawn on hospital administration the gradating student can be instantly hired and absorbed discharge duties in other specialized medical social work settings too.

Unit I Traditional and Modern Approaches of Health Care

Mooring form the folk medicine, Indigenous and traditional Hospitals, Hospitals in the allopathic practice, Definition, Meaning, Functions of Hospital, History, growth and Classification of hospitals in India, Hospital administration as a Concept- Definition, General Principles, Importance , Functions of Hospital Administration, Difference between governing and managing general admistration and hospital administration . .

Unit II Hospital as a formal organization

Goals, V-M statements of Major players in the Health Sector. Hospital specializations: Classification, Terminology and Technology, Structure and Functions of Departments within hospitals and among domains of specialization, Administrative Procedures, Hospital Organization , The Governing Boards, Committees, Role, Functions and Duties of the Medical Social Work Department, Staffing, organization, functions, frame of reference and terns of reporting, norms and the working practice of medical social work department of any one hospital, Extension Services and Public Relations.

Unit III Hospital as a social institution in a heterogeneous setting

Location, space and infrastructure: Reception and Admin Block , General and specialized wards, ICU, instrumentation, Traffic, Parking lot, Ventilation, Sanitation, Power and water supply, Emergency services including ambulance , *Work Force:* Executive, Medical and Non-Medical staff, Administrative and Paramedical Component. Technicians, Drivers, Skilled and semiskilled sub staff, *Arrangement and Organization* : Hospital departments, Outpatient services, dietary services, Nursing and ward management, *Reporting, Reference and Maintenance:* Medical Records, Laboratory Services, Radiological Services, Causality and Emergency Services, Human Resource Management Department

Unit IV Quality Assurance in Hospitals

Total Quality management in Hospital Services, Control of Hospital in meeting diverse stakeholder interests, General cleanliness and hygiene, Dealing Infection and associated problems. Use of Computers, gadgets, sophisticated and risky tools and equipments, Physical and medical securities, Technocratic back up, Ethics in hospitals. Implications of Hospitalization from the Patient and Family point of view. Health insurance and issues in the processing and settlement of claims

Unit V Hospital Legislation and Legal Bounds

Laws pertaining to hospitals, The mental act 1987- Prevention of food adulteration act 1954 – The drugs and cosmetics act 1940 – The birth, deaths and Marriage registration act – the epidemic disease act 1987- Medical termination of pregnancy act, the prevention of fetal

discrimination . The employees' provident Fund Act 1952. The employees' pension scheme 1995 and Employee state insurance Act.

References:

Anand K K, (1996) Hospital Management: a new perspective, New Delhi, Vikas Publishing House.
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Semester IV **Credit: 5**

Paper - 6

MSW 5548 BLOCK PLACEMENT FOR MEDICAL AND PSYCHIATRIC SOCIAL WORK II – FIELD WORK

Course Description:

As the integral part of social work training that slates the students in actual field setting alongside of the cognitive training that he/ she receives as part of course work, this course aims at enabling the students to understand the various components of the specialization settings and develops skills and competencies required for effective Social Work interventions at different.

Course Objective:

- To augment the classroom learning with the life experiences gained through the assistance of the agency to which the student is allotted.
- To make the student familiarize with Vision, Mission, System, Processes and Objectives of the professional field work Organizations to which he/she is attached.
- To develop *Analytical and Assessment Skills* of Social Problems at the level of Individual, Group and Community in Industry/ NGO/ Hospital settings.
- To infuse rigor in the habit of self learning, reflections and learning through experiences
- To entrain in *Documentation Skills* to ensure continuity of Service and Growth of Professional Competence in the practice of Social Work methods.
- To prepare the student to actively and independently engage in action research in accompaniment of his project work.

Methodology

This will be done by identifying the appropriate agency that would provide space for the student to transact work with the professional understanding and competency. The course coordinator and the faculty team will decide upon the selection of agencies that would offer training. Actual training comprises of work put in by the student for 2 day per week in accordance with the prescription of the attached agency.

The assigned student is expected to gather a comprehensive idea on:

Expanse of Illness and Disabilities; Care for challenged; Palliative care; Psychiatric Social Work; Intervention & Treatment on psychiatry; Therapeutic Intervention; Mental Health Care Services; Psychiatric Rehabilitation in context of Family & Community settings.

Specialization:

Medical and Psychiatry

Course Requirement and Evaluation:

- 50% of the marks will be allotted for continuous assessment.
- Regularity in attendance, keenness to participate, readiness to learn, development of required skill, ability to conceptualize and acquisition will be tested
- The functional knowledge will be evaluated on the basis of process reports, observational reports and participatory evaluation by the faculty.
- A viva voce will be conducted at the end of the semester by a committee of which one is an external member. Performance in the viva will be evaluated for 25%.

Continuous Assessment:

Regularity of Attendance	15 marks
General Participation	10 marks
Skills and Competencies	15 marks
Written Reports	25 marks
Individual Presentation	10 marks
Total	**75 marks**

VIVA VOCE

Conceptualization	5 marks
Working Knowledge	10 marks
Problem Solving Ability	5 marks
Consolidated Report	5 marks
Total	**25 marks**

Semester IV

Paper - 3

Credit:5

MSW 5562 SOCIAL EXCLUSION AND MARGINALIZATION

COURSE DESCRIPTION:

Opining that *Development Management* cannot be complete enough to bring out radical changes without a special study on Social Exclusion and Marginalization, this course aims at helping the students to contextualize the major human predicament in postmodern society, namely, marginalization and exclusion of people in forms of prejudice, discrimination and oppression in the society. It harps on to drive in the idea that holistic community development is possible if only all constituents of the society are studied and approached with an inclusive ideology. Titles covered in the course pitches on the idea that

natives, vulnerable and lesser mortals are marginalized and socially excluded not only in India but in many parts of the world in many different ways.

COURSE OBJECTIVES:

- To make students understand that the concept of 'Social Exclusion' and 'Marginalization' is matter of concerns as in many different parts of the world neglect, insult and injuries have been inflicted upon by on the many who are powerless and pushed to the fringe
- To acquaint the students with the idea that different excluded groups of India are affected and intimidated that the scars of their wound must treated properly before one embarks on developmental activities.
- To inculcate critical understanding of inclusive policies in India and impress upon the fact that it is only fair to accept the weak and neglected, and reach the unreached with a lot more humility and endurance than what is already in the offing.

COURSE OUTCOME:

With the theme conveyed here that the polices of social inclusion and efforts coming through social movements are only meager in wiping out the insult and injuries inflicted upon the weaker section for the hundreds and thousands years, social work graduates passing out form here will have a proper understanding of marginalization and exclusion of individuals and groups that they shall willfully modestly support and participate in the intervention program to address these problems.

Unit-I Meaning and Reality of Social Exclusion

Concept of Social Exclusion – Need for Social inclusion- History of social exclusion and Discrimination - Forms of social exclusion and Discrimination (Caste, class, religion, race and gender) - Consequences of social exclusion on Indian society - - Dimensions of Social exclusion in context of Globalization, Liberalization, and Privatization context.

UNIT II: Caste Class Structure in India

Defining Caste and class in India - locating the different caste groups in the power matrix - caste discourse in India and Tamil Nadu – politics of caste and class: Intolerance, prejudice, discrimination, domination and oppression practiced in the socio political and economic structures nationally and globally - Religion and religious sects as instruments of discrimination and oppression-Complexity of Post-Modern casteist discourse in India

Unit III Discourse on Marginalization

Understanding Marginalization – Factors contributing Marginalization - Gender :Women's identity and caste, cultural, racial, ethnic, religious and class constructs - Political economy and status of women -Unequal wage structure - Gender bias in developmental programmes - Market economy and women - Knowledge economy and women - Feminist discourse

Children and the Aged - Physical, Mental and Health issues of Marginalization – Child Abuse and Neglect of Elders

Sexual Minorities: Identity needs and Rights: Gay, Lesbian rights and rights of Indian Transvestites

Religious Minorities: Meanings and dimensions of Minority an OBC s problems in India. Constitutional safeguards to other Back ward classes - Socio economic problems of other back ward classes. Social Work with OBC s

UNIT IV Constitutional Obligations

Scheduled Tribe: Major problems of Scheduled tribe in India .constitutional safeguards to scheduled tribes Development and welfare programme for Scheduled tribe. Contemporary approaches to Tribal Development - Role of NGOs . **Schedule Caste**: Social Reforms relating to Scheduled caste, constitutional safeguards to scheduled castes, Contemporary Dalit movements, Role of NGOs - Development and welfare programme for Scheduled caste.

UNIT V Social Movements of the Marginalized - Case Studies

Dalits of India – From Ambedhkar, Gandhi till present - The American South – Campaign for Civil Rights by the African Americans – Racial colour conciseness (South Africa) – Campaign against the Apartheid - Women's liberation movements in India – pre and post independent initiatives . Selected Case studies of Afghanistan; India, Sri Lanka, Middle East, Eastern Europe and Northern Ireland

References

Ghurye, G.S. (2000). Caste and Race in India. Bombay. Popular Prakashan
Sem A: 'Social exclusion: Concept application and scrutiny, Asian Development Bank, 2003
Thorat S.K.: Caste exclusion/ Discrimination and deprivation: The situation of Dalit in India Concept paper for DFID Delhi
Omvedt, G (1994), Dalits and the Democratic Revolution, Sage Publication, New Delhi.
Shah. G (1990), Social Movements in India, Sage Publications, New Delhi.
Sharma, K. L (1998) Social Stratification in India, Rawat Publications, Jaipur.
Beteille, A (1992) The Backward Classes in Contemporary India, Oxford University Press, New Delhi.
Baraivl Beteill A (1997), Caste: Old and New, Rawat Publication, Jaipur.
Shah, G (2000) Dalit and the State, Sage Publications, New Delhi

Semester IV **Credit:5**

Paper - 4

MSW 5564 URBAN COMMUNITY DEVELOPMENT IN INDIA

COURSE DESCRIPTION

It is not only to balance the impetus given to rural development but to match strategies of keeping pace with the global paradigm of planning for advancement and fostering international cooperation; this course on the urban community development is planned. It would have a topic on urbanization introduced as concept, while conflict and theories on Urbanism, Urban Community Development and Urban society organization will be given dealt with equal impetus. Students will be made to understand the responsibility and participation of the state in civil society engagement.

OBJECTIVES:

- To provide understanding urban communities, psyche of city dwellers on urban planning and development.
- To make student develop sensitivity and commitment to the rights of vulnerable groups in urban communities.
- To promote skills necessary for community development for every student of development management to work in urban settings.

LEARNING OUTCOME

On acquiring the functional knowledge on various aspects, the learner of this course and the program will know the lagging urban community development and urban development that he/she shall pitch into be social work advisor who can run the show on his/her own

UNIT-I

Urbanization: Concept – Characteristics - Urbanization and Economic Development- Urbanization and Industrialization- Trends in urbanization process - Urbanization and social problems – Urban Social problems: Environment protection – Air, Water, Soil, Noise Pollution –Crime – accidents – Prostitution - Slums: Definition – Causes – Characteristics – Slums in Indian cities- Slum clearance board- Functions of slum clearance Board- Programs for slum dwellers - Socio-Psychological Issues of Slum - Dwellers, Effect of Industrialization and Globalization on Slum.

UNIT II

Urbanism: Meaning and Characteristics, , - Theories of Urbanization – Concentric zone theory – Sector Theory – Multi-Nucleus theory., - Theories of slum -Unorganized/Informal sectors: concept,- characteristics; Unorganized Labour: child labour, women labour and construction workers and the role of the urban poor in urban development. Migration – Concepts, causes, types and theories.

UNIT-III

Urban Community Development: Definition, Objectives and Historical Development, Principles, Process and methods of Urban Community - Development, Urban Development Administration: National, state and local levels; Structure and functions of Urban Development Agencies; Urban services and Urban deficiencies; Municipal Administration Corporations, Municipality, Town Panchayats; Townships and Cantonments. Role of Community Development Worker: Application of Social Work method in Urban Development

UNIT IV

Urban Community Development Programes: Five year Plans and Urban Development, Urban Development Policy, Slum Clearance Board: Origin, Slum
Clearance Act, Structure, Functions, Programmes of Slum Clearance Board. Housing Board- Housing and Urban Development Corporation (HUDCO) Problems in Implementation of Urban Community Development Programmes.

UNIT V

People's participation: Concept, importance, scope and problems - Social action and advocacy in urban development: Public distribution systems – acts and reforms, right to information and accountability - Civil society organizations and initiatives for urban community development - Case studies of best practices - Delhi project – Baroda project – Jamsedpur project – Neiveli Township model.

References:

Asthana M. and Ali, Sabir, (2003), Urban Poverty in India, Mittal Publication, New Delhi.
Muttagi P.K. (1989) , Urban Development. Bombay: Tata institute of Social sciences.
Nagpal, H. (1994) Modernization and Urbanization in India. Jaipur: Rawat Publications

Sandhu, R.S (ed.) (2003) Urbanization in India: Sociological Contribution. New Delhi: Sage Publications
Singh, A. M. & A. De Souza, (1990).Then Urban Poor Slum and Pavement Dwellers in the Major Cities of India, Manohar Publication, New Delhi,
Thakur, B. (ed.) (2005) Urban and Regional Development in India: Vol I New Delhi: Concept Publishing Company.

Credit:5

Semester IV
Paper - 5

MSW 5566 - ECOLOGICAL PERSPECTIVE AND SOCIAL WORK INTERVENTION

COURSE DESCRIPTION:

With the ecology and environment being battered by the anthropogenic onslaughts unleashed in the name of development, it must be only wiser that issues of environment are addressed with prudence and concern. Else it will be the human kind which may the first to go packing once in for all. Therefore it becomes mandatory that at least selfishly man starts thinking about disasters and dangers and start subscribing to the corrections and mitigation. This course aims at facilitating the students to understand the qualitative and quantitative constructs of development, more precisely the sustainable development initiative, and work out models that would minimally impact ecology and environment to fetch admirable progress and advancement in meeting the developmental needs of the community and India.

COURSE OBJECTIVES:

- To make students gain insight about environmental problems and challenges in the global and national context
- To fetch them ideas to develop a critical understanding and evaluation of environmental policies, legislations and programmes
- To facilitate an understanding on strategies and approaches of green development and environment management
- To enable the students to conceive ecologically sound, organic models of development with a balanced perspective

COURSE OUTCOME:

On learning and assimilating ideas from this course, students would have developed balanced perspectives that they would strive t adapt green technology for development and eco friendly approaches to pursue life and development of skills in social work intervention in the protection and promotion of people, especially the weaker ones, and the environment alike.

UNIT I Composites of Environment

Definitions, Theoretical approaches and reference to Ecology and Environment- Environment and Social structure. Sustainability issues: Implications for livelihood security and community well-being - differential impact on women, poor, marginalized groups and indigenous populations – Environment dimensions pertaining to Poverty, Population, Economics and other social issues - Environmental degradation: Causes and consequences.

UNIT II Contemporary Indian Environmental Concerns (Case Studies)

State & status of India's land, water, air, forests - Environmental problems arising from unplanned urban growth and developmental projects - Dams and Displacement of people - Forest lands, and indigenous people - Fuel and Energy needs – Nuclear technology and

opportunity cost - Global environmental issues and concerns - Climate Change, Greenhouse Effects; Carbon Footprint Impact of neoliberalism on environment and environmental justice.

UNIT III Environmental Movement: History of International Environment Movement, Gross root environment Movement in India [CHIPKO, APIKO, NBA, SILENT VALLEY}. International and Local Scenario - International conferences, environmental agreements, WTO concerns- Indian Agricultural Challenges and opportunities. Impact of Globalization, Bio-technology.

UNIT IV Social Work Intervention: Role of Social Workers in Environmental Protection and Development. Application of Social Work methods in creating awareness on various Environmental Issues – Civic Responsibilities

UNIT V Environment Action and Management: State and the Environment preservation – Eco Tourism, Environmental Legislation- needs and importance; Grassroots Organization, Women and Conservation of Environment - Eco-Feminism; Panchyats and Environment; Environment Management: Role of Traditional, State controlled, people controlled and jointly managed systems; and Waste Management and recycling.

Reference:

Alvares, Claude. (1992). Science Development and Violence. New Delhi. Oxford University Press.

Coates, J. (2004), *Ecology & Social Work: Towards a New Paradigm*. New York: Paul & Company Public Consortium.

Gadgil, M. & Guha, R., (1992), *This Fissured Land: An Ecological History of India*. Delhi: Oxford University Press.

Gadgil, M. &Guha, R.(1995), *Ecology & Equity: The Use and Abuse of Nature in Contemporary India*. London: Routledge

Nandy, Ashish. (1988). Science, Hegemony, and Violence. Oxford University Press.

Shiva, Vandana. (1993). Ecofeminism. New Delhi.

Semester IV

Paper - 6 **Credit: *5***

MSW 5568 BLOCK PLACEMENT FOR DEVELOPMENT MANAGEMENT II – FIELD WORK

Course Description:

As the integral part of social work training that slates the students in actual field setting alongside of the cognitive training that he/ she receives as part of course work, this course aims at enabling the students to understand the various components of the specialization settings and develops skills and competencies required for effective Social Work interventions at different.

Course Objective:

- To augment the classroom learning with the life experiences gained through the assistance of agency to which the student is allotted.
- To make the student familiarize with Vision, Mission, System, Processes and Objectives of the professional field work Organizations to which he/she is attached.
- To Develop Analytical and Assessment Skills of Social Problems at the level of Individual, Group and Community in Industry/ NGO/ Hospital settings.

- To infuse rigor in the habit of self learning, reflections and learning through experiences
- To develop Documentation Skills to ensure continuity of Service and Growth of Professional Competence in the practice of Social Work methods.
- To prepare the student to actively and independently engage in action research in accompaniment of his project work.

Methodology

This will be done by identifying the appropriate agency that would provide space for the student to transact work with the professional understanding and competency. The course coordinator and the faculty team will decide upon the selection of agencies that would offer training. Actual training comprises of work put in by the student for 2 day per week in accordance with the prescription of the attached agency.

The assigned student is expected to gather a comprehensive idea on:

Forms of social exclusion and Discrimination Consequences of social exclusion on Indian society - Dimensions of Social exclusion in context of Globalization, Liberalization, and Privatization context. Factors contributing Marginalization Role of NGOs - Development and welfare programme for Scheduled caste / Tribe **State & status of India's land, water, air, forests** Environmental degradation: Causes and consequences State and the Environment preservation (strategies

Specialization:

Development Management

Course Requirement and Evaluation:

- 50% of the marks will be allotted for continuous assessment.
- Regularity in attendance, keenness to participate, readiness to learn, development of required skill, ability to conceptualize and acquisition will be tested
- The functional knowledge will be evaluated on the basis of process reports, observational reports and participatory evaluation by the faculty.
- A viva voce will be conducted at the end of the semester by a committee of which one is an external member. Performance in the viva will be evaluated for 25%.

Continuous Assessment:

Regularity of Attendance	15 marks
General Participation	10 marks
Skills and Competencies	15 marks
Written Reports	25 marks
Individual Presentation	10 marks
Total	**75 marks**

VIVA VOCE

Conceptualization	5 marks
Working Knowledge	10 marks
Problem Solving Ability	5 marks
Consolidated Report	5 marks
Total	**25 marks**

Semester IV
Paper - 3

Credit:5

MSW 5582 HUMAN RESOURCE DEVELOPMENT

Course Description:

The purpose of this course is to look at the theme of Human Resource Development (HRD) from a system point of view, working out strategies to improve human resources with a sociological perspective. Topics covered will include Training, Employee Development, aspects of HRD activities and parameters hired for ensuring organizational effectiveness to deal with issues of stress, conflicts and performance through appropriate models. Efforts will be directed to bring out relevant case studies which will inform students the real-time issues, specifics and challenges involved in upgrading employee relations for organizational productivity in the Indian context.

Objectives

- To assist the students to acquire Knowledge as well as local and global perspective on Human Relations, Training and Development
- To sensitize the learner to look at the ways and means to adopt suitable attitudes that push for practice of HRD
- To help the students see the need for acquiring appropriate skills in this regard.

Learning Outcome:

Acquiring adequate knowledge by mulling over the basic concepts of HRD, students who would pass this course would have been acquainted with the recent trends in Human Resource Development, that as trained hands they would be readily employable in the various work /job settings and/ or at the same time be competent enough to launch entrepreneurial ventures of their own. A proper understanding of HRD content given in the course will make the learner subscribe by default to quality consciousness.

Unit – I Philosophy of HRD

Introduction to the concept and philosophy of HRD- Meaning, Definition, Scope. Importance and comparison of traditional personnel management and HRD; Elements of HRD –Training, Development and Education ; Human Resource System Designing, Principles in designing HRD system - HRD at different levels- HRD in Indian Industries

Unit – II Training Methods

Approaches to Training :Evolutionary Approach, System Approach, Pedagogical vs. Andragogical approach; Analyzing Training Needs – Identifying performance gaps and building performance measures; Choosing training methods and estimating training costs; Developing objectives and methods of Instruction - Implementation of Training programmes – Setting up learning environment; Training Evaluation – Internal and External evaluation, Kirkpatrick's 4 levels of evaluation model.

Unit – III Employee Development

Concept of Employee empowerment, Employee Development and Managerial Development; Current approaches and practices in development: Employee participation and capacity building as tools for competency building- Quality management as Development tool. Impact of Management and Leadership Style on Employee Development - Building Conductive Organizational Climate for Development -

Unit IV-HRD Activities

Employee development activities- Approaches to employee development- Mentoring for Employee Development, leadership development, action learning, assessment and development centres; Intellectual capital and HRD; HRD mechanisms for workers; Role of trade unions; Industrial relations and HRD; Influence of motivation on development activities.- HRD practices in government organisations, manufacturing and service industries and MNCs; International experiences of human resource development.

Unit – V Organization Effectiveness & HRD

HRD climate – organizational culture facilitating Learning and development- HRD implementation: strategies and issues in Human Resources System Designing. Pre-requisites for successful HRD programmes. Knowledge management and Human Resource Development - Responsive Learning Organizations - HRD experiences in India Emerging trends and perspectives: case studies.

REFERENCES

Craich Robert, L. (1987), Training and Development - Hand book, McGraw Hill. Pub., New Delhi.

Jeya, Gopal, R. (1993), Human Resource Development - connectional analysis and strategies, sterling pub., New Delhi.

Puranik M.V. (1988), Human Resource Development in research and development organisation, Rawat Pub., Jaipur

Rao T.V. (1990), HRD Missionary, Oxford & IBH, New Delhi. Agarwal Yash, 1988, Education and HRD (Emerging challenges in the regional context), Common Welth Pub., New Delhi.

Richard A. Swanson and Elwood F. Holton, (2008), Foundations of Human Resource Development, Berrett-Koehler Publishers

Sing P.N. (1993), Developing and managing Human Resources, Scuhandra pub. , Bombay

Semester IV **Credit:5**

Paper - 4

MSW 5584 ORGANIZATION DEVELOPMENT

Course Description

If an organization is seen as a gelling of work force of diverse kinds endowed with varied talents, there shall always be an element of non-sink and non conformity to norms. Misunderstanding, inflated ego centric conflicts and lack of compliance to the work ethics in certain domains of work transactions if unaddressed can loom large to pose a threat to the organization and sometimes could even take a toll on its existence itself. This paper defines Organizational Development, discusses its importance and takes into consideration the Techniques and Applications of OD. It also includes discussions Social change, Wages and information related to OD Interventions that would provide for ushering in a Planed Change.

Objectives

- To familiarizing students with theory and practice of OD and helping them to learn OD as a viable strategy for changing improving organizational effectiveness
- To inform learners the learning to use OD for enhancing the quality of life for organizational members
- To making them aware of various interventions and applied behavioral science tools and Techniques

- To project to students the understanding of OD will help them get trained with global perspective for work around the world

UNIT I: Organizational Development

The concept, definition, theory, historical development, basis for organizational Development, scope and practice of Organizational Development in India and other developed and developing countries.

UNIT II: Organizational Development Techniques

Group Focused techniques: Survey Feedback, Management by Objective (MBO), Product and Service Quality Programs, team building Individual Focused techniques: Skills training, Leadership training & development, Executive coaching, Role negotiation, Job redesign, Career planning

UNIT III: Applications of OD

OD in Health Care Organizations, Family Owned Organizations, Educational Institutions, Public Sector Organizations and future directions in OD

UNIT IV: Organizational Change

Conceptualizing change Process: Types of change, importance of change, resistance to change, Models and process of Organizational Change: Force-Field Analysis, Process Consultation, Normative Re-Educative Strategy, Parallel Learning Structures, Implementing change and evaluating change process

UNIT V: Management Development

Management Development: Definition, elements of formal and informal management development, model, types, levers for success, causes of failure, Burgoynes's model.

References:

Armstrong, Michael 1994 - Improving Organisational Effectiveness, Kogan Page Ltd., London.

Betty, Jane Punnett (2004), International on Organizational Behavior, New Delhi, Prentice Hall

Brown D.R. and D. Harvey: An Experiential Approach to Organization Development, 7th ed, Pearson-Education, N. Delhi.

Cummings T.G. and C.G. Worley; Organization Development and Change, 5th ed,

Fred, Luthans (1998), Organizational Behavior, Singapore, McGraw Hill Book Com.

French, W.L. and Bell, Jr. C.H.: Organizational Development, 6th ed, PHI, N. Delhi.

Gerald, Greenberg & Robert A. Barren, (2005), Behavior in Organizations, New Delhi, Prentice hall

John W. Newstron & Davis, Keith (2002), Organizational Behavior, New Delhi, Tata McGraw Hill –Hill

Mumford, Alan 1993 - Management Development: Strategies for Action, the Eastern Press, Brittain.

Paton, Robert A. & McCalman, James 2000 - Change Management, Response Books, Chennai.

Paul Hersey, (2002), Management of Organizational Behavior, New Delhi, Prentice Hall

Ramu, S. Shiva 1998 - Cross Border Mergers and Acquisitions, wheeler Publishing, New Delhi.
Rothwell, W. & Sullivan, R. 2005. Practicing Organizational Development: A Guide for ConsultantsAquinas P.G (2006), Organizational Behavior, New Delhi. Excel Books
St. Paul: West.
Ulrich, Karl, Chaudhry, R.S, Rana. S. Kishan. 2000 & - Managing Corporate Culture, Macmillan India, New Delhi.

Semester IV **Credit:*5***
Paper - 5

MSW 5586 PERFORMANCE MANAGEMENT SYSTEMS

Course title:

Accompanying the course work on organizational development this paper on performance management and appraisal is expected to give students who opt for HR specialization a kind of rounded and professional completion to their discourse. The idea that appraisal is an important component of stock taking and in assessing the performance of individuals and organizations will be duly conveyed. This course will explain the conceptual framework of performance management system. Listing its various components it will seek to discuss issues of implementing the same for Career management and development. Talent Management Practices and Process will also form a part of the course. The chief focus will be however is to bring and enhance Talent management and Career development to the fore.

Course Objectives

- To inform students the wider options and multiplicity of management methods employed in HR that as learner specializing in the domain he/she will be able to get comprehensive understanding to get a grip over the situation
- To enable them to appreciate the nuances of the various methodologies hired in the context by way of comparison of case studies and customization of techniques at closer to real situation with hands on experience by performing mock assessments
- To offer insights on the SWOC of performance assessment system itself while in action and discuss the wider implications that it would exert towards sustenance in the long run
- To provide the nitty-gritty of assessing a review performance appraisal system, the nature of 360 degree feedback and discuss evaluating its utility in differ kinds of social and workplace settings

Learning outcome

The theoretical inputs and the many different exercises and experiences provided in the course work should be able to enable the learner gain appreciable confidence and understanding on how to performance assessment and management can work in the individual, group and organizational context that as trained HR with a social work grooming the graduating student would be able to liaison and professionally deliver goods effectively and proactively than others.

Unit I-Conceptual Framework for Performance Management: Understanding Performance Management, Process and Design; Objectives of Performance Management System; Historical development in India; Performance management and performance appraisal; Linkage of performance management system with other HR practices.

Unit II-Components of Performance Management System: Performance Planning; Ongoing Support and Coaching; Performance Measurement and Evaluation; Performance Management and Appraisal; Methods of Performance Appraisal; Appraisal Communication: Counselling, Identifying potential for development; Linking Pay with Performance.

Unit III- Implementation and Issues in Performance Management: Implementing performance management system- Strategies and challenges; Characteristics of effective performance metrics; Role of HR professionals in performance management; Performance management as an aid to learning and employee empowerment; Performance management documentation; Performance management audit; Ethical and legal issues in performance management; Use of technology and e-PMS, Performance management practices in Indian organizations.

Unit IV- Talent Management Practices and Process: Concept and approaches; Framework of talent management; Talent identification, integration, and retention Building the talent pipeline; Managing employee engagement; Key factors and different aspects of talent management; Using talent management processes to drive culture of excellence – multicultural perspective; Talent management in India; Future directions in talent management practice and research.

Unit V- Career management and development

Career Development: Meaning, Scope Actions, types and problems - Career Paths, Career Transition and Plateauing; Career planning and Performance counseling: Definition, meaning and steps. Coaching and mentoring -Competency mapping; Career Development in a Changing Environment-Theoretical Foundation; Concepts of Competence - Competency Approach to Development; Assessment Centre Approach to Competence Building - Succession Planning and Fast-Tracking - Dual-Ladder for Career Development ;Career Development and Business Strategy - Special Issues in Career Development.

References

Amstrong.M and Baron, A, (1998), Performance Management: The new realities, Institute of Personnel and Development, London

Bhatnagar, J. (2007). Talent management strategy of employee engagement in Indian ITES employees: key to retention. *Employee relations*, *29*(6), 640-663.

Mohan Thite, (2004), Managing People in the New Economy, Response Books, New Delhi

Robert Bacal, (2007), Performance Management, McGraw-Hill Education

Scullion, H., & Collings, D. (2010). Global talent management. Routledge.

Smither, JW (ed), (1998), Performance Appraisal: State of the art in Practice, Jossey-Bass:SF

Tripathi, P.C, (2006), Human Resource Development , Sultan and Chand, New Delhi

Semester IV **Credit: 5**

Paper - 6

MSW 5588 BLOCK PLACEMENT FOR HUMAN RESOURCE MANAGEMENT II – FIELD WORK

Course Description:

As the integral part of social work training that slates the student in actual field setting alongside of the cognitive training that he/ she receives as part of course work, this course aims at enabling the students to understand the various components of the specialization settings and develops skills and competencies required for effective Social Work interventions at different.

Course Objective:

- To augment the classroom learning with the life experiences gained through the assistance of agency to which the student is allotted.
- To make the student familiarize with Vision, Mission, System, Processes and Objectives of the professional field work Organizations to which he/she is attached.
- To Develop Analytical and Assessment Skills of Social Problems at the level of Individual, Group and Community in Industry/ NGO/ Hospital settings.
- To infuse rigor in the habit of self learning, reflections and learning through experiences
- To develop Documentation Skills to ensure continuity of Service and Growth of Professional Competence in the practice of Social Work methods.
- To prepare the student to actively and independently engage in action research in accompaniment of his project work.

Methodology

This will be done by identifying the appropriate agency that would provide space for the student to transact work with the professional understanding and competency. The course coordinator and the faculty team will decide upon the selection of agencies that would offer training. Actual training comprises of work put in by the student for 2 day per week in accordance with the prescription of the attached agency.

The assigned student is expected to gather a comprehensive idea on:

HRD programmes HRD at different levels; areas of HRD; HR Information System - Essential qualities of human relations in work place training effectiveness, evaluation of training methodology dealing with stress and performance- implementation of Japanese Style of Management-5S, Kaizen and Six Sigma - Occupational hazards social work at workplace environment.

Specialization:

Human Resource Management

Course Requirement and Evaluation:

- 50% of the marks will be allotted for continuous assessment.
- Regularity in attendance, keenness to participate, readiness to learn, development of required skill, ability to conceptualize and acquisition will be tested
- The functional knowledge will be evaluated on the basis of process reports, observational reports and participatory evaluation by the faculty.
- A viva voce will be conducted at the end of the semester by a committee of which one is an external member. Performance in the viva will be evaluated for 25%.

Continuous Assessment:

Regularity of Attendance	15 marks
General Participation	10 marks
Skills and Competencies	15 marks
Written Reports	25 marks
Individual Presentation	10 marks
Total	**75 marks**

VIVA VOCE

Conceptualization	5 marks
Working Knowledge	10 marks
Problem Solving Ability	5 marks
Consolidated Report	5 marks
Total	**25 marks**

Research Department of English

MPhil English

Change of Course Codes with retrospective effect from 2014-2015

Sem	Existing Course Code	Proposed Course Code	Course Title	Hrs	Cr.
I	MPE 6611	MPE 6605	Research Methodology	6	6
	MPE 6613	MPE 6607	Advanced Literary Theories	6	6
II	MPE 6614	MPE 6606	Research Specialization	6	6
	MPE 6001	MPE 6610 & 6611	Dissertation		