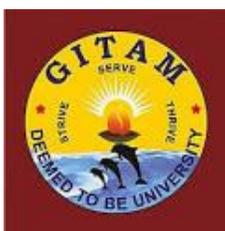


**GANDHI INSTITUTE OF TECHNOLOGY AND MANAGEMENT (GITAM)
(Deemed to be University)
VISA KHAPATNAM * HYDERABAD * BENGALURU**

Accredited by NAAC with A⁺ Grade



REGULATIONS AND SYLLABUS

OF

Bachelor of Arts (B.A.) Economics, Mathematics, Statistics

(w.e.f. 2020-21 admitted batch)

REGULATIONS
(w.e.f. 2020-21 admitted batch)

1.0 ADMISSION

Admission into BA Program of GITAM (Deemed to be University) is governed by GITAM regulations.

2.0 ELIGIBILITY CRITERIA

2.1 A minimum of 50% of marks in Pre-University / Higher Secondary / 10+2 / Intermediate examination in any discipline or equivalent from any recognized Board or Council with basic proficiency in English.

Following are the criteria of selection for admission into B.A. Program:

The candidates are selected on the basis of their Pre-University / Higher Secondary / 10+2 / Intermediate marks and a personal interview, which focuses on their area of interest and communication skills in English.

The final selection of candidates for admission depends upon i) the Pre-University / Higher Secondary / 10+2 / Intermediate marks and a personal interview as mentioned above and ii) the rules of admission including the rule of reservation as stipulated by GITAM from time to time.

3.0 CHOICE BASED CREDIT SYSTEM

Choice Based Credit System (CBCS) is followed as per UGC guidelines in order to promote:

Student centered learning

Cafeteria approach

Inter-disciplinary perspective

This provides students an opportunity to enroll for courses of their choice and learn at their own pace.

Course objectives and learning outcomes are specified leading to clarity on what a student would be able to do at the end of the program.

4.0 STRUCTURE OF THE PROGRAM

4.1 The Program Consists of

- i) Foundation Courses (Compulsory) - F
- ii) Ability Enhancement Courses (Compulsory) - AECC
- iii) Ability Enhancement Courses (Elective) - AECE
- iv) Core Courses (Compulsory) - C
- v) Discipline Specific Elective - DSE
- vi) Generic Elective - GE

4.2 Each course is assigned a certain number of credits depending upon the number of contact hours (lectures/tutorials/practical) per week.

4.3 In general, credits are assigned to the courses based on the following contact hours per week per semester.

- 1 credit for each lecture/tutorial hour per week
- 1 credit for 2 hours of practical per week
- 2 credits for three or more hours of practical per week

4.4 The BA (EPP) program comprises six semesters spread across three academic years of study.

4.5 Programme Educational Objectives (PEOs)

1. Demonstrate the ability to prepare, organize and deliver content in a variety of formats both in speech and writing for academic and professional use.
2. Identify relevant print and internet resources for study of select topics, and use them appropriately in writing assignments, presentations and seminars by following standard academic conventions and ethical practices.
3. Apply suitable critical and theoretical approaches to the study and analysis of select texts.
4. To impart the basic knowledge of Mass communication & Journalism and related areas of studies.
5. develop the learner into competent and efficient Political Science professionals.

4.6 Programme Educational Objectives (PEOs)

1. Demonstrate the ability to prepare, organize and deliver content in a variety of formats both in speech and writing for academic and professional use.
2. To provide students knowledge and insight in Mathematics so that they are able to work as mathematical professional.
3. To provide students with knowledge and capability in formulating & analysis of mathematical models in real life application.
4. To provide exceptional value based education equivalent to the international standards
5. To develop among students analytical skills, interdisciplinary collaboration and contribution to the wide ranging humanistic services to stimulate positive mental health in the society.
6. Imbibe the research, innovation, entrepreneurship, and incubation culture.
7. Inculcate professional ethics and values of Indian and global culture.

4.7 Programme Outcomes (POs) and Programme Specific Objectives (PSOs)

Programme Outcomes (POs)

1. Equip students with a sound knowledge base that can lead to higher education in the core areas of study or other related academic disciplines.
2. Cultivate critical and creative thinking, encourage intellectual openness and create socio-cultural awareness to promote lifelong learning in students for their personal and professional growth.
3. Help students develop their critical faculties and communication skills to excel in

academic and work environments.

4. identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
5. Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
6. Elicit views of others, mediate disagreements and help reach conclusions in group settings.
7. Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering. PO 5. Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
8. Environment and Sustainability: Understand the issues of environmental contexts and sustainable development. PO 7. Self-directed and Life-long Learning: Acquire the ability to engage relevance.
9. Acquire the knowledge with human values and face the world with courage and humanity.
10. Develop their critical faculties and communication skills to excel in academic and work environments.
11. Promote independent critical and evaluative skills, and intellectual curiosity
12. Learn, select, and apply appropriate methods and procedures, resources and computing tool such as Excel, MATLAB, MATHEMATICA, SPSS etc with an understanding of the limitations.

Programme Specific Outcomes (PSOs)

1. To provide a systematic understanding of the concepts and theories of mathematics and analyze the situations.
2. Familiarise with basic and applied econometric tools and methods used in economics. The aim of this course is to provide a foundation in applied econometric analysis and develop skills required for empirical research in economics. It also covers statistical concepts of hypothesis testing, estimation and diagnostic testing of simple and multiple regression models.
3. Delineate the developmental policies designed for developed and developing economics.

Table-1

| Description of the courses | Compulsory credits required to complete the program |
|---|---|
| Ability Enhancement Courses - Compulsory (AECC) | 16 Credits |
| Ability Enhancement Courses - Elective (AECE) | 06 Credits |
| Foundation Courses (F) | 21 Credits |
| Core Courses (C) | 55 Credits |
| Discipline Specific Elective Courses (DSE) | 18 Credits |
| Generic Elective Courses (GE) | 6 Credits |
| Total | 122 Credits |

NOTE:

A minimum of 120 Credits are compulsory to complete the program and for award of the degree.

Every course offered as part of the curriculum, has been carefully picked and the course objectives clearly defined, based on the competency outcome that is expected to be delivered by the end of the course. Credits are assigned to a course, depending on the effort that is required to teach the laid out course objectives and the effort expected from students. One credit is represented by 1 hour of contact class interactions per week.

NOTE: GITAM reserves the right to change the total credits/courses offered without Prior notice.

4.5 Semester Wise-Course Structure

B. A. Economics, Mathematics, Statistics (EMS)

I Semester

| S. No. | Course Code | Course Title | Course Category | L T P C |
|--------|-------------|---------------------------------|-----------------|---------|
| 1 | GHG-101 | English for General Proficiency | AECC | 1 0 4 3 |
| *2 | GHG-103 | Second Language: Telugu I | *AECE | 2 0 2 3 |
| | GHG-105 | Second Language: Hindi I | | |
| | GHG-107 | Second Language: Sanskrit I | | |

| | | | | |
|----------------------|----------|---|------|-----------|
| | GHG-109 | Second Language: French I | | |
| | GHG-111 | Second Language: German I | | |
| | GHG-119 | Second Language: Spanish I | | |
| 3 | GHG-121 | Fundamentals of ICT | AECC | 1 0 2 2 |
| 4 | VDC- 111 | Venture Development Course | F | 1 0 2 2 |
| 5 | GMS-101 | Differential Calculus | C | 2 2 0 3 |
| 6 | GMS-103 | Descriptive Statistics and Probability Theory | C | 2 2 0 3 |
| 7 | GMS-105 | Introduction to Economics | C | 3 0 0 3 |
| 8 | GMS-121 | Descriptive Statistics and Probability Theory Lab | C | 0 0 2 1 |
| Total Credits | | | | 20 |

*Any one to be chosen from the given list

**BA (EMS)
II Semester**

| S. No. | Course Code | Course Title | Course Category | L T P C |
|--------|-------------|-----------------------------------|-----------------|---------|
| 1 | GHG-102 | Workplace Communication | AECC | 1 0 4 3 |
| *2 | GHG-104 | Second Language: Telugu II | *AECE | 2 0 2 3 |
| | GHG-106 | Second Language: Hindi II | | |
| | GHG-108 | Second Language: Sanskrit II | | |
| | GHG-110 | Second Language: French II | | |
| | GHG-112 | Second Language: German II | | |
| | GHG-114 | Second Language: Spanish II | | |
| 3 | GHG-116 | Our Environment | F | 1 0 2 2 |
| 4 | GHG-113 | The Culture and Heritage of India | F | 1 0 2 2 |

| | | | | |
|----------------------|---------|--|------|-----------|
| 5 | GMS-132 | MS Excel | AECC | 1 0 2 2 |
| 6 | GMS-102 | Differential Equations | C | 2 2 0 3 |
| 7 | GMS-104 | Mathematical Expectation and Probability Distributions | C | 2 2 0 3 |
| 8 | GMS-106 | Principles of Microeconomics | C | 3 0 0 3 |
| 9 | GMS-122 | Probability Distributions Lab | C | 0 0 2 1 |
| Total Credits | | | | 22 |

*Any one to be chosen from the given list

BA (EMS)
III Semester

| S. No. | Course Code | Course Title | Course Category | L T P C |
|----------------------|-------------|---|-----------------|-----------|
| 1 | GHG-201 | Human Values and Ethics: Understanding Harmony | F | 2 2 0 3 |
| 2 | GHG-203 | Understanding Globalization | F | 3 0 0 3 |
| 3 | GHG-205 | Health and Wellbeing | F | 0 0 4 2 |
| 4 | GMS-201 | Real Analysis | C | 2 2 0 3 |
| 5 | GMS-203 | Statistical Methods | C | 2 0 2 3 |
| 6 | GMS-205 | Principles of Macroeconomics | C | 3 0 0 3 |
| 7 | GHG-209 | Cross-Cultural Communication | AECC | 1 0 4 3 |
| Total Credits | | | | 20 |

BA (EMS)
IV Semester

| S. No. | Course Code | Course Title | Course Category | L T P C |
|----------------------|-------------------------|---|-----------------|-----------|
| 1 | GMS-202 | Algorithms and Programming Languages | C | 2 2 0 3 |
| 2 | GMS-204 | Statistical Inference | C | 2 2 0 3 |
| 3 | GMS-212 | Public Finance and International Trade | C | 3 0 0 3 |
| 4 | GMS-208 | Vector Calculus | C | 2 2 0 3 |
| 5 | GMS-210 | Linear Programming | C | 3 0 0 3 |
| 6 | GHG-252 | Public Speaking in English | *GE | 1 0 4 3 |
| | GHG-254 | Literature in Translation | | |
| | GEM-252 | Communication for Special Needs | | |
| | GEM-254 | Global Politics and Media | | |
| | GEM-256 | Film Appreciation | | |
| | GEP-254 | Psychology of Peace and Conflict Resolution | | |
| | GMS-254 | Indian Financial Institutions and Markets | | |
| GMS-256 | Environmental Economics | | | |
| 7 | GHG-120 | Soft Skills | AECC | 0 0 4 2 |
| Total Credits | | | | 20 |

**BA (EMS)
V Semester**

| S. No. | Course Code | Course Title | Course Category | L T P C |
|----------------------|-------------|---|-----------------|-----------|
| 1 | GMS-301 | Algebra | C | 2 2 0 3 |
| 2 | GMS-303 | Theory of Equations | C | 2 2 0 3 |
| 3 | GMS-305 | Sample Techniques and Design of Experiments | C | 2 0 2 3 |
| 4 | GMS-309 | Mathematical Economics | C | 3 0 0 3 |
| *5 | GMS-343 | Economics of Growth and Development | *DSE | 3 0 0 3 |
| | GMS-345 | Indian Economy- Issues and Policies | | |
| 6 | GMS-311 | Complex Analysis | C | 2 2 0 3 |
| 7 | GMS-323 | SPSS Lab | C | 0 0 4 2 |
| 8 | GHG-391 | Project Phase I | | 1 0 2 2 |
| Total Credits | | | | 22 |

**BA (EMS)
VI Semester**

| S. No. | Course Code | Course Title | Course Category | L T P C |
|--------|-------------|---|-----------------|---------|
| *1 | GMS-342 | Linear Algebra | *DSE – I | 3 0 0 3 |
| | GMS-344 | Number Theory | | |
| *2 | GMS-346 | Statistical Quality Control and Reliability | *DSE - II | 3 0 0 3 |
| | GMS-348 | Optimization Techniques | | |
| *3 | GMS-358 | Introduction to Econometrics and Computer Application | *DSE - III | 3 0 0 3 |
| | GMS-360 | Economics of Money, Banking and Finance | | |

| | | | | |
|----------------------|---------|--|-----|-----------|
| *4 | GHG-352 | Cultural Studies | *GE | 3 0 0 3 |
| | GHG-354 | Text and Performance | | |
| | GMS-352 | Monetary Economics | | |
| | GHP-352 | History of Indian Journalism: Colonial and Post-Colonial period | | |
| | GHP-354 | Gender and Education in India | | |
| | GEP-352 | Human Rights | | |
| 6 | GMS-392 | Project based on one of the core subjects – Phase II | C | 1 0 10 6 |
| Total Credits | | | | 18 |

*Any one to be chosen from the electives in each course category

5.0 MEDIUM OF INSTRUCTION

The medium of instruction (including examinations and project reports) shall be English.

6.0 REGISTRATION

Every student has to register himself/herself for each semester individually at the time specified by the Institute / University.

7.0 ATTENDANCE REQUIREMENTS

7.1 A student whose attendance is less than 75% in all the courses put together in any semester will not be permitted to attend the end-semester examination and he/she will not be allowed to register for subsequent semester of study. He/she has to repeat the semester along with his/her juniors.

7.2 However, the Vice Chancellor on the recommendation of the Principal / Director of the University College / Institute may condone the shortage of attendance to the students whose attendance is between 66% and 74% on genuine medical grounds and on payment of prescribed fee.

8.0 EVALUATION

8.1 The assessment of the student's performance in a theory course shall be based on two components: continuous evaluation (40 marks) and semester end examination (60 marks).

8.2 A student has to secure an aggregate of 40% in the course in the two components put together to be declared to have passed the course subject to the condition that the candidate must have secured a minimum of 24 marks (i.e. 40%) in the theory components at the semester-end examination.

Table -2 Assessment Procedure

| S. No. | Component of Assessment | Marks Allotted | Type of Assessment | Scheme of Examination |
|--------|-------------------------|----------------|--------------------|-----------------------|
|--------|-------------------------|----------------|--------------------|-----------------------|

| | | | | |
|---|--|--|-----|---|
| 1 | Theory | Continuous Evaluation | 40 | Class Room Seminars/ Case Discussion/ Mid examinations/ Workshop/ Training/ Assignments/Mini Projects. The semester-end examination in theory subjects: 60 marks. |
| | | Semester-end Examination | 60 | |
| | | Total | 100 | |
| 2 | Practical Courses/ Lab | Continuous Evaluation | 100 | Class Room Seminars/ Presentations/ Case Discussion/ Workshop/ Training/ Assignments/ Mini Projects/ Experiments |
| 3 | Theory and Practical combined courses | (a) Theory component: continuous evaluation (40 M) and semester end examination (60 M) | 100 | 70% of the weightage will be given for theory component. Evaluation for theory component shall be same as S. No. 1 as above. |
| | | (b) Practical component: continuous evaluation | 100 | 30% of the weightage will be given for practical component. Evaluation for theory component shall be same as S. No. 2 as above. |
| | | Total | 200 | |
| 4 | Project Work (V & VI Semesters) | Continuous Evaluation | 100 | i) Forty (40) marks for periodic evaluation on originality, innovation, sincerity and progress of the work assessed by the project supervisor. ii) Thirty (30) marks for mid-term evaluation by a panel of examiners. iii) Thirty (30) marks for final report, presentation and Viva-voce by a panel of examiners |
| 5 | Compulsory/ Elective courses | Continuous Evaluation | 100 | Class Room Seminars/ Presentations/ Case Discussion/ Workshop/ Training/ Assignments/ Mini Projects/ Experiments/ Mid exams |

| | | | | |
|--|------------------------------|--|--|--|
| | (F/ AECC/ AECE/ GE/ C) | | | |
|--|------------------------------|--|--|--|

9.0 RE-TOTALING, REVALUATION & REAPPEARANCE

- 9.1 Re-totaling of the theory answer script of the end semester examination is permitted on request made by the student by paying the prescribed fee within the stipulated time after the announcement of the result.
- 9.2 Revaluation of the theory answer script of the end semester examination is also permitted on a request made by the student by paying the prescribed fee within the stipulated time after the announcement of the result.
- 9.3 A Student who has secured 'F' Grade in any course of any semester shall have to reappear for the semester end examination of that course.

10.0 SPECIAL EXAMINATION

A student who has completed the stipulated periods of study for the BA program and still has failure grade 'F' in not more than **four theory courses** may be permitted to appear for special examinations, which shall be conducted during the summer vacation at the end of the last academic year.

11.0 BETTERMENT OF GRADES

Students who secured second class or pass who wish to improve their grades will be permitted **ONLY ONCE** to improve their grades at the end the program.

1. Candidates who have passed all the courses of a program within the stipulated period of study and who have obtained a Pass or Second Class only are eligible for Betterment of Grades.
2. Candidates who have already secured First Class or First Class with Distinction are not eligible for betterment of Grades.
3. Candidates who have completed the program of study beyond the stipulated period of study i.e. through Special examinations or subsequently, are not eligible for betterment of Grades
4. Betterment of Grades is permitted only through appearance of the theory examinations.
5. Betterment of Grades is permitted only once, at the end of the program of study, simultaneously along with Special examinations.
6. Candidates can appear for betterment at one course, across the semesters, for the number of semesters they have studied. i.e. a Six semester BA student can appear for betterment in any Six courses of study.

7. The better Grade secured either in the first or betterment appearance shall be considered as the final Grade.
8. New Grade Card/PC shall be issued to candidates who have improved their Grades/Class after submitting the old Grade Card/PC.
9. The date, month and year of the declaration of betterment result shall be printed on the Grade Card/PC
10. Betterment marks shall not be taken into consideration for award of ranks, prizes, and medals.
11. Candidates have to pay a betterment fee as prescribed by the University.
12. The rules & regulations framed by the University from time to time shall be applicable.

12.0 GRADING SYSTEM

- 12.1 Based on the student performance during a given semester/trimester, a final letter grade will be awarded at the end of the trimester/semester in each course. The letter grades and the corresponding grade points are as given in Table 3.

Table 3: Grades & Grade Points

| S. No. | Grade | Grade Points | Absolute Marks |
|---------------|-------------------|---------------------|-----------------------|
| 1 | O (outstanding) | 10 | 90 and above |
| 2 | A+ (Excellent) | 9 | 80 to 89 |
| 3 | A (Very Good) | 8 | 70 to 79 |
| 4 | B+ (Good) | 7 | 60 to 69 |
| 5 | B (Above Average) | 6 | 50 to 59 |
| 6 | C (Average) | 5 | 45 to 49 |
| 7 | P (Pass) | 4 | 40 to 44 |
| 8 | F (Fail) | 0 | Less than 40 |
| 9 | Ab (Absent) | 0 | - |

- 12.2 A student who earns a minimum of 4 grade points (P grade) in a course is declared to have successfully completed the course, and is deemed to have earned the credits assigned to that course. However, a minimum of 24 marks is to be secured at the semester end examination of theory courses in order to pass in the theory course.

13.0 GRADE POINT AVERAGE

- 13.1 A Grade Point Average (GPA) for the semester/trimester will be calculated according to the

formula:

$$\text{GPA} = \frac{\Sigma [C \times G]}{\Sigma C}$$

Where

C = number of credits for the course,

G = grade points obtained by the student in the course.

- 13.2 GPA is awarded to those candidates who pass in all the subjects of the semester/trimester. To arrive at Cumulative Grade Point Average (CGPA), a similar formula is used considering the student's performance in all the courses taken, in all the semesters/trimesters up to the particular point of time.
- 13.3 CGPA required for classification of class after the successful completion of the program is shown in Table 4.

Table 4: CGPA required for award of Class

| | |
|--------------|--------------|
| Distinction | $\geq 8.0^*$ |
| First Class | ≥ 6.5 |
| Second Class | ≥ 5.5 |
| Pass | ≥ 5.0 |

* In addition to the required CGPA of 8.0, the student must have necessarily passed all the courses of every semester in first attempt.

14.0 ELIGIBILITY FOR AWARD OF THE BA DEGREE

14.1 Duration of the program:

A student is normally expected to complete the BA program of six semesters within three years. If due to some unavoidable circumstances that is not possible, a student may extend and complete the program in not more than five years including study period.

14.2 However the above regulation may be relaxed by the vice chancellor in individual cases for cogent and sufficient reasons.

14.3 A student shall be eligible for award of the BA degree if he or she fulfills the following conditions.

- i) Registered and successfully completed all the courses and projects.

- ii) Successfully acquired the minimum required credits as specified in the curriculum within the stipulated time.
- iii) Has no dues to the Institute, Hostels, Libraries, NCC/NSS etc.
- iv) No disciplinary action is pending against him/her.

14.4 The degree shall be awarded after approval by the Academic Council.

15. PEDAGOGY

The class room pedagogy is customized by individual faculty to enhance the learning experience, which is dependent on the course and the degree of absorption by students. It has been proven that the degree of absorption is directly proportional to self-learning or preparedness before the classroom sessions and the interactions during the classes. Knowledge thus gained builds a strong long-lasting foundation. Typically, class room pedagogy ranges from instruction, simulations, case discussions, role plays, videos, etc.

15.1 Experiential Learning

GITAM provides ample opportunity for experiential learning. Practical field-based experiential learning enhances class-room instructions and links theory to practice, which is highly emphasized in this curriculum. NGO Projects, Social & Rural Projects and Field Visits are integral parts of the program.

16.0 SEMESTER END EXAMINATIONS

16.1 Examinations

Examinations are not the end, but a launching platform into a brighter future. The knowledge gained during the semester is tested through the semester end-examinations. Violation of norms regarding behavior in the examination hall will attract severe penalty as per statutory rules and regulations. Students found copying in the examination halls will have one grade point less or asked to leave the programme basing on the consequences.

16.2 Examination Duration

The duration of each semester end-examination shall be for 3 hours.

The medium of semester end examination for all the courses shall be English with the exception of languages (other than English)

The duration of laboratory examination will be equivalent to the duration of a laboratory session (2 or 3 periods as applicable)

16.3 Examination pattern

| S. No. | Pattern | Marks |
|--------|--|------------------|
| 1. | Section A : Five short answer questions to be answered out of the given eight | 5 x 3 = 15 marks |

| | | |
|--------------|--|------------------|
| | (At least one question from each unit/Unit of the syllabus will be given; any five of the given eight questions may be answered) | |
| 2. | Section B : Five essay type questions (One question from each unit/ Unit of the syllabus will be given - with Internal Choice - either/or) | 5 x 9 = 45 marks |
| Total | | 60 marks |

GHG-101: English for General Proficiency
(Ability Enhancement Course - Compulsory)
(w.e.f. Admitted Batch 2020-2021)

L T P C
1 0 4 3

Course Description:

The main goal of this course is to help learners improve their English language skills and enable them to communicate more effectively in English. The course aims at assisting the students in developing skills in the goal areas of intelligibility, vocabulary, grammar, presentation and interactive communication so that any deficiencies in skill or practice do not interfere with communication.

Course Objectives:

1. Enable the learner to communicate effectively and appropriately in real life situations
2. Empower the student to integrate the use of the four language skills of Reading, Listening, Speaking and Writing
3. Equip the learner with the study skills required to use English effectively for study purpose across the curriculum
4. Reinforce grammatical structures for coherent organization of information at sentence and discourse levels

5. Help the learner enhance his/her vocabulary for fluent communication of ideas

Course Outcomes:

At the end of the course, the student should be able to

1. communicate effectively and appropriately in real life situations
2. integrate the use of the four language skills of Reading, Listening, Speaking and Writing
3. gain study skills required to use English effectively for study purpose across the curriculum
4. strengthen grammatical structures for coherent organization of information at sentence and discourse levels
5. enhance his/her vocabulary for fluent communication of ideas

Unit I

8 Hours

Listening: Listening for gist and specific information (concrete facts, such as places, prices or times)

Speaking: Introducing self and others.

Reading: Skimming for gist and scanning for specific information.

Writing: Paragraph writing (specific topics: descriptive, narrative) - sequencing, creating coherence, cohesion, grammatical accuracy and lexical resource; awareness about punctuation and capitalization

Grammar & Vocabulary: Use of articles and prepositions; personal pronouns: case; word families: verbs, nouns, adjectives, adverbs

Unit II

9 Hours

Listening: Identifying main and secondary points; note taking; summarizing key information

Speaking: Asking for and giving information- social contexts and common experiences

Reading: Identifying main and secondary points

Writing: Note making and Summarizing

Grammar & Vocabulary: Verbs and Tenses, linkers, sign posts and transition signals

Unit III

9 Hours

Listening: Listening for comparisons, contrasts and trends; completing labels on a plan, map, or diagram

Speaking: Mini oral presentations using graphic representation of data, using appropriate language and organizing ideas coherently (speculating, comparing and contrasting)

Reading: Reading in detail, understanding precise information, interpreting figures and tables

Writing: Information transfer: writing short structured reports based on figures and tables – basic level

Grammar & Vocabulary: Language for writing: referring to figures and tables; trends and classification; comparisons and contrasts; use of antonyms; quantifiers

Unit IV

8 Hours

Listening: Drawing simple inferences – recognizing relationships, connections between facts

Speaking: Debate: expressing and justifying opinions, agreeing/disagreeing

Reading: Reading for inferential and organizational understanding through contextual clues

Writing: Controlled and guided writing: Argumentative essay

Grammar & Vocabulary: Subject verb agreement (countables, uncountables); use of synonyms

Unit V

8 Hours

Listening: Listening for inferential understanding through contextual clues

Speaking: Structured oral presentations on specific topics (general and academic context)

Reading: Critiquing a short text: analysing writer's opinion/claims

Writing: Argumentative essay writing

Grammar & Vocabulary: Reinforcing learning; awareness about task specific grammatical correctness and range of vocabulary

Reference Books:

Simon Greenall, Michael Swan, *Effective Reading*. Cambridge University Press, 2008.

Redman Gairns, *Oxford Word Skills Advanced*. Oxford, 2009.

Mccarthy, *English Vocabulary in Use*. Cambridge University Press, 2008.

Michael Swan, *Practical English Usage*. Oxford University Press, 2017.

Martin Hewings, *Advanced English Grammar*. Cambridge University Press; 2016.

Raymond Murphy, *English Grammar in Use*. Cambridge University Press, 2017.

Alice Savage, Patricia Mayer, Masoud Shafiei, Rhonda Liss, & Jason Davis, *Effective Academic Writing*. Oxford University Press, 2014.

Seely, John. *Oxford Guide to Effective Writing and Speaking*. Oxford University Press (India), 2013.

Peter Chin, Yusa Koizumi, Samuel Reid, Sean Wray, Yoko Yamazaki, *Academic Writing Skills*. Cambridge University Press, 2012.

Olsen, Leslie & Huckin, Thomas. *Technical Writing and Professional Communication for Non-Native Speakers*. McGraw-Hill, 1991.

GHG-102: Workplace Communication **(Ability Enhancement Course - Compulsory)** **(w.e.f Admitted Batch 2020-2021)**

| | | | |
|----------|----------|----------|----------|
| L | T | P | C |
| 1 | 0 | 4 | 3 |

Course Description:

The course accounts for the importance of communication in the 21st century workplace and is based on the premise that communication is a learned skill, and can be improved upon with the right training. The focus of this course is to heighten students' awareness of workplace communication, and help them enhance their interpersonal skills, with the end result of becoming a more competent communicator overall.

Course Objectives:

1. Enable the learner to understand the significance and benefits of effective communication in the workplace
2. Help the learner identify techniques for communicating with different audiences,

3. Enable them to address common challenges to effective communication
4. Impart skills for making make positive connections with co-workers
5. Equip the learner with the skills to communicate in English with clarity and confidence, both in speech and writing, in formal and informal contexts

Course Outcomes:

At the end of the course, students should be able to

1. Enable the learner to understand the significance and benefits of effective communication in the workplace
2. Help the learner identify techniques for communicating with different audiences,
3. Enable them to address common challenges to effective communication
4. Impart skills for making make positive connections with co-workers
5. Equip the learner with the skills to communicate in English with clarity and confidence, both in speech and writing, in formal and informal contexts

Unit I

8 Hours

Listening: Listening for presentation strategies: identifying topic, context, function

Speaking: Structured Presentations using AV aids

Reading and Writing: memo, message, note, notice, advertisements; guided writing: short text for internal communication

Grammar & Vocabulary: Discourse markers; direct and indirect speech; reporting verbs; vocabulary list: placing orders; corporate hospitality

Unit II

Listening: Following a discussion: views, opinions, stance/position

Speaking: Formal group discussion

Reading: Reading to understand formal and informal styles, reading to understand types of reports and structure of a report

Writing: Writing short reports

Grammar & Vocabulary: Active and passive voice; formal/academic words and phrases; vocabulary list: sales, branding and marketing

Unit III

Listening: Listening for implicit meaning

Speaking: Discussion in pairs: sharing ideas, presenting opinions, reaching consensus

Reading: Reading to understand tone in emails/ letters

Writing: Guided writing: emails and letters

Grammar & Vocabulary: Negative and positive expressions; modifiers; vocabulary list: benefits, health and safety, relocation

Unit IV

Listening: Listening to discussions (workplace contexts)

Speaking: Discussion with specific agenda: conducting meetings

Reading: Reading for critical evaluation: proposals

Writing: Guided writing: Proposals

Grammar & Vocabulary: modifiers; vocabulary list: team work, appraisals and feedback

Unit V

Listening: Listening to interviews (job interviews – conventions, strategies and language)

Speaking: Mock interviews

Reading: Reading for critical evaluation

Writing: Resume and cover letter

Grammar & Vocabulary: Action verbs for resume writing; vocabulary list: work environment,

Reference Books

Guy Brook-Hart and Norman Whitby, *Business Benchmark Series*, Cambridge University Press, 2014.

Raymond Murphy, *English Grammar in Use*. Cambridge University Press, 2017.

Business Communication for Success. University of Minnesota Libraries Publishing, 2018.

Courtland L. Bovee, *Business Communication Essentials*. Pearson Education; 4 edition 2010

Savage, Alice et.al, *Effective Academic Writing*. Oxford University Press, 2014.

Teresa Thonney, *Academic Writings ; Concepts and Connections*, OUP, 2015.

Seely, John. *Oxford Guide to Effective Writing and Speaking*. Oxford University Press (India), 2013.

Olsen, Leslie & Huckin, Thomas. *Technical Writing and Professional Communication for Non-Native Speakers*. McGraw-Hill. 1991.

Rizvi, M Ashraf. *Effective Technical Communication*. Tata McGraw Hill. 2005.

GHG-103: Second Language (Telugu I) **(Ability Enhancement Course - Elective)**

Course Description:

The Second Language course is designed as an informative and interactive introduction to the language. It aims at enabling the students to learn the basics of the target language including the structures and vocabulary necessary for comprehension of the selected texts and messages communicated in everyday situations. It focuses on using the language for basic communication in addition to enhancing awareness about the linguistic and cultural diversity in contemporary society.

Course Objectives:

1. Develop an interest in the target language among the learners
2. Enable the learner to acquire basic skills in the target language to comprehend written and spoken messages and communicate with native speakers in real life situations
3. Create awareness about the language and its socio-cultural context for effective Communication
4. Understand the role of communication in personal & professional success.
5. Prepare and present messages with a specific intent.

Course Outcomes:

On the Successful completion of this course the student will be able to-

1. Read and comprehend the prescribed pieces of prose, poetry, short story and one act play
2. Use the learned grammatical concepts to speak and write good English

3. Write paragraphs and essays on the prescribed topics
4. Explore supplementary reading sources
5. Practice phonetics refer dictionary for finding out the correct pronunciation of a given word

Module I

9 Hours

ప్రాచీన కవిత్వం:

(అ) నన్నయ్య

- కవిత్వం

ఆంధ్ర మహాభారతం-ఆదిపర్వం-శాల్మలీ అశ్వాసం (120-165)

"నవ వరుడగు శంతనునికు" నుండి దివ్య భాషాశాలంకృత వరకు

(ఆ) జిక్కన

ద్రావిడ పదదేవనం-ఆంధ్ర మహాభారతం-ఉద్యోగపర్వం

శ్రీశ్రీయ అశ్వాసం-(100-125)

"ధర్మనందను పలుకులు" నుండి "అని యారడిలగ బలికిన" వరకు

Module II

8 Hours

ఆధునిక కవిత్వం

(అ) గురజాడ

కన్యక

(ఆ) శ్రీశ్రీ

దేశ చరిత్రము

Module III

9 Hours

కథానకలు

(అ) వాహినీ శివకంఠర్

బింతలజోవు

(ఆ) బండి నారాయణ స్వామి

సామ్రాజ్యం

Module IV

8 Hours

వ్యాకరణం

(అ) సంధులు

సవర్ణదీర్ఘ, గుణ, వృద్ధి, యాజదేశ, ఇక, గ, స, డ, డ, వాదేశ, రూపాగమ

ఋగాగమ, అమ్రేడిత, అశ్వు, ఇశ్వు, ఉశ్వు సంధులు

Module V

8 Hours

వ్యాకరణం

(అ) సమాసాలు తీక్షువు, కర్మాధారయ, ద్వంద్వ, ద్విగు, బహువ్రీహి

(ఆ) అక్షర దోషాలు దోషాలు సరిబద్ధి సాధు రూపాలు రాయాలి

విద్యార్థి కృత్యాలు

1. శ్రీశ్రీ కవిత దేశ చరిత్రలకు సంబంధించిన పేరడీలు సేకరించండి
2. ముత్యాల సరాలు ఛందస్సులో రచనలు చేసే ప్రయత్నం చేయండి
3. ఆనాటి ద్రౌపది పరిస్థితిని ప్రస్తుత సమాజ పరిస్థితికి అన్వయించండి

(పైన సూచించిన విద్యార్థి కృత్యాలు కొన్ని ఉదాహరణలు మాత్రమే. ఇటువంటివి మరిన్ని ప్రయత్నించగలరు.)

GHG-104: Second Language (Telugu II) (Ability Enhancement Course - Elective)

Course Description:

The Second Language course is designed as an informative and interactive introduction to the language. It aims at enabling the students to learn the basics of the target language including the structures and vocabulary necessary for comprehension of the selected texts and messages communicated in everyday situations. It focuses on using the language for basic communication in addition to enhancing awareness about the linguistic and cultural diversity in contemporary society.

Course Objectives:

1. Develop an interest in the target language among the learners
2. Enable the learner to acquire basic skills in the target language to comprehend written and spoken messages and communicate with native speakers in real life situations
3. Create awareness about the language and its socio-cultural context for effective Communication
4. Understand the role of communication in personal & professional success.
5. Prepare and present messages with a specific intent.

Course Outcomes:

On the Successful completion of this course the student will be able to-

1. Read and comprehend the prescribed pieces of prose, poetry, short story and one act play
2. Use the learned grammatical concepts to speak and write good English

3. Write paragraphs and essays on the prescribed topics
4. Explore supplementary reading sources
5. Practice phonetics refer dictionary for finding out the correct pronunciation of a given word

Module I

9 Hours

ప్రాచీన కవిత్వం

(అ) ధూర్జటి

- సాయుజ్యము

శ్రీకాళహస్తి మహాత్మ్యము - ద్వితీయాశ్వాసం-(109-139)

"త్రేతాంబననాక్కు" నుండి "పన్నగంబు"... వరకు

(ఆ) చేమకూర వేంకటకవి

- సుభద్రా పరిణయం

విజయ విలాసం-8వ అశ్వాసం-(93-139)

"తనయుని పెండ్లికిగ వలే ధాత్రికి" నుండి

"తేరెక్కి దంపతులరుగా" వరకు

Module II

8 Hours

ఆధునిక కవిత్వం

(అ) జాషువా

- ఫిరదౌసి లేఖ

("ఆ సుల్తాను"... నుండి "అనుచు విభించే" వరకు)

Module III

9 Hours

ఆధునిక కవిత్వం

(అ) గొడ్డాపు సత్యం - "చెట్టు" ఖండిక 1 నుండి 25 పద్యాలు

("శ్రీనిధానం" నుండి "మహిమనీల" పద్యం వరకు)

(కవితా వైజయంతి పద్య సంకలనం నుండి)

Module IV 8 Hours

కథాసకలు

(అ) కేతు విశ్వనాథ రెడ్డి - నమ్మకున్న నేల

(ఆ) ముప్పాళ్ల రంగనాయకమ్మ - అమ్మకు జిబివారం లేదా?

Module V 8 Hours

నవల

డా|| వి.ఆర్. రాసాని - బతుకాట

విద్యార్థి కృత్యాలు

1. సుభద్రా వివాహ ఆచారాలు ఈనాటి వివాహ ఆధారాలు తులనాత్మకంగా పరిశీలించండి
2. మీకు నచ్చిన ఒక చెట్టుకు సంబంధించిన పూర్తి సమాచారాన్ని సేకరించండి.
3. మీ ఇంటి నేపథ్యంలో అమ్మలకు ఆదివారం ఉందో, లేదో ఒక సంఘటన ఆధారంగా కథ రాయండి.
4. నమ్మకున్న నేల కథలోని రైతుల గాధలను చిత్రాలతో దినపత్రికల ఆధారంగా

సేకరించండి.

(పైన సూచించిన విద్యార్థి కృత్యాలు కొన్ని ఉదాహరణలు మాత్రమే. ఇటువంటివి మరిన్ని ప్రయత్నించగలరు.)

GHG-105: Second Language (Hindi I)
(Ability Enhancement Course - Elective)

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Course Description:

The Second Language course is designed as an informative and interactive introduction to the language. It aims at enabling the students to learn the basics of the target language including the structures and vocabulary necessary for comprehension of the selected texts and messages communicated in everyday situations. It focuses on using the language for basic communication in addition to enhancing awareness about the linguistic and cultural diversity in contemporary society.

Course Objectives:

1. Develop an interest in the target language among the learners
2. Enable the learner to acquire basic skills in the target language to comprehend written and spoken messages and communicate with native speakers in real life situations
3. Create awareness about the language and its socio-cultural context for effective Communication
4. Understand the role of communication in personal & professional success.
5. Prepare and present messages with a specific intent.

Course Outcomes:

On the Successful completion of this course the student will be able to-

1. Read and comprehend the prescribed pieces of prose, poetry, short story and one act play
2. Use the learned grammatical concepts to speak and write good English
3. Write paragraphs and essays on the prescribed topics
4. Explore supplementary reading sources
5. Practice phonetics refer dictionary for finding out the correct pronunciation of a given word

Unit I: Prose (Detailed Text)

8 Hours

1. "Bazar Darshan" – Jainendra Kumar
2. "Irshya: Tu na gayi mere man se" – Ramdhari Sinh 'Dinkar'
3. "Aapne meri rachana padhi?" – Acharya Hajari Prasad Dwivedi

Unit II: Prose (Detailed Text) 8 Hours

1. “Bharatiya Sahitya ki Ekta” – Nanddulare Vajpayee
2. “Athidhi” – Ramvilas Sharma
3. “Meri rumal kho gayee” – Vidyanivas Mishr

Unit III: Prose (Detailed Text) 8 Hours

1. “Kavi aur Kavita” – Mahavir Prasad Dwivedi
2. “Sona Hirani” – Mahadevi Varma
3. “Kafan” – Premchand

Unit IV: Prose (Non-detailed Text) 9 Hours

1. “Puraskar” – Jayashankar Prasad
2. “Haar” – Shrimati Mannu Bhandari
3. “Sadaachaar ka Taveej” – Harishankar Parsai
4. “Aadmi ka bachcha” – Yashpal
5. “Haar ki jeet” – Sudarshan
6. “Thakur ka kuan” – Premchand
7. “Usne Kaha tha” – Shri Chandradhar Sharma Guleri
8. “Roj” – Shri Agney
9. “Chief ki daavat” – Bhishma Sahani

Unit V: Grammar 9 Hours

1. Rewriting of sentences as directed:
 - i. Kaarak (Case)
 - ii. Ling (Gender)
 - iii. Vachan (Number)
 - iv. Kaal (Tense)
 - v. Vaachya (Voice)
2. Correction of Sentences:
 - i. ‘Chahiye’ prayog
 - ii. Ling aur vachan sambandhi
3. Make your own sentences
4. Karyalay Hindi: Prashasani Shabdavali / Parnam
 - i. Karyalayon ka naam
 - ii. Pad Nam
5. Sandhi Vichched
6. Patra Lekhan
7. Gadyams ke aadhar par diye gaye prashnoka uttar dena chahiye

8. Nibandh

Text Books*:

Prose Text: Dr. Ajaya Kumar Patnaik. *Gadya Gaurav*. Sonam Prakashan, Badamdadi, Cuttack.

Non-Detailed Text: Dr. Gulam Moinuddin Khan. *Charchit Kahaniyan*. Shabnam Pustak Mahal, Badamdadi, Cuttack.

Poetry Text: Dr.T. Nirmala and Dr. S. Mohan. *Padya Manjari*. Rajkamal Prakashan, New Delhi.

*Latest Editions

GHG-106: Second Language (Hindi II) (Ability Enhancement Course- Elective)

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Course Description:

The Second Language course is designed as an informative and interactive introduction to the language. It aims at enabling the students to learn the basics of the target language including the structures and vocabulary necessary for comprehension of the selected texts and messages communicated in everyday situations. It focuses on using the language for basic communication in addition to enhancing awareness about the linguistic and cultural diversity in contemporary society.

Course Objectives:

1. Develop an interest in the target language among the learners
2. Enable the learner to acquire basic skills in the target language to comprehend written and spoken messages and communicate with native speakers in real life situations
3. Create awareness about the language and its socio-cultural context for effective Communication
4. Understand the role of communication in personal & professional success.
5. Prepare and present messages with a specific intent.

Course Outcomes:

On the Successful completion of this course the student will be able to-

1. Read and comprehend the prescribed pieces of prose, poetry, short story and one act play
2. Use the learned grammatical concepts to speak and write good English
3. Write paragraphs and essays on the prescribed topics
4. Explore supplementary reading sources
5. Practice phonetics refer dictionary for finding out the correct pronunciation of a given word

Unit I: Poetry**8 Hours**

1. “Saakhi” – Kabirdas (Pratham das dohe)
2. “Baal Varnan” – Surdas

Unit II: Poetry**8 Hours**

1. Dohe – Tulasi Das
2. Pad – Meerabai (Pratham das pad)

Unit III: Poetry**8 Hours**

1. Dohe – Rahim
2. Dohe – Bihari

Unit IV: Poetry**9 Hours**

1. “Matrubhasha ke prati” – Bharatendu Harishchandra
2. “Matrubhoomi” – Maithili Sharan Gupt
3. “Bharat Mata” – Sumitranandan Pant

Unit V: Poetry**9 Hours**

1. “Ashok ki chinta” – Jayashankar Prasad
2. “Todti Pathar” – Suryakant Tripathi Nirala
3. “Mai neer bhari dukh ki badali” – Mahadevi Varma

Text Book

Kavya Deep: Edited by Sri B. Radhakrishna Murthy. Maruthi Publications, Guntur. (Latest Edition)

GHG-107: Second Language (Sanskrit I)
(Ability Enhancement Course - Elective)**L T P C****2 0 2 3****Course Description:**

The Second Language course is designed as an informative and interactive introduction to the language. It aims at enabling the students to learn the basics of the target language including the structures and vocabulary necessary for comprehension of the selected texts and messages communicated in everyday situations. It focuses on using the language for basic communication in addition to enhancing awareness about the linguistic and cultural diversity in contemporary society.

Course Objectives:

1. Develop an interest in the target language among the learners
2. Enable the learner to acquire basic skills in the target language to comprehend written and spoken messages and communicate with native speakers in real life situations

3. Create awareness about the language and its socio-cultural context for effective Communication
4. Understand the role of communication in personal & professional success.
5. Prepare and present messages with a specific intent.

Course Outcomes:

On the Successful completion of this course the student will be able to-

1. Read and comprehend the prescribed pieces of prose, poetry, short story and one act play
2. Use the learned grammatical concepts to speak and write good English
3. Write paragraphs and essays on the prescribed topics
4. Explore supplementary reading sources
5. Practice phonetics refer dictionary for finding out the correct pronunciation of a given word

UNIT I

1 मुदाभिषेक्तु वरद त्वमहर्षि

8 HOURS

[श्रीमद् वल्मिकिरामायणे अयोध्याकाण्डे द्वितीय सर्गः]

2 हिमालयो नाम नगाधिराजः

[कुमा सम्भवे प्रथम सर्गः]

UNIT II

9 HOURS

3 धर्मबद्धो दौवारिकः

[शिवराज विजये प्रथम विरमे द्वितीय निवासः]

4 कृतघ्ने नास्ति निष्कृतिः

[पञ्चतन्त्रे लब्ध प्रणाशे वानर मकर कथा]

UNIT III

8 HOURS

5 अवन्तु भरतप्रजाः स्वतन्त्र भारतप्रभाम्

[भारत भारति]

6 एषः धर्मः सनातनः

[१० सुभाषितानि]

UNIT IV**9 HOURS****7 शब्दाः****[निर्धारित शब्दाः]****8 संस्कृत सम्भाषणाभ्यासः****UNIT V****8 HOURS****9 सन्धयः****[निर्धारित सन्धयः]****Text Book: सरस्वति सुभाम****GHG-108: Second Language (Sanskrit II)
(Ability Enhancement Course - Elective)**

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Course Description:

The Second Language course is designed as an informative and interactive introduction to the language. It aims at enabling the students to learn the basics of the target language including the structures and vocabulary necessary for comprehension of the selected texts and messages communicated in everyday situations. It focuses on using the language for basic communication in addition to enhancing awareness about the linguistic and cultural diversity in contemporary society.

Course Objectives:

1. Develop an interest in the target language among the learners
2. Enable the learner to acquire basic skills in the target language to comprehend written and spoken messages and communicate with native speakers in real life situations
3. Create awareness about the language and its socio-cultural context for effective Communication
4. Understand the role of communication in personal & professional success.
5. Prepare and present messages with a specific intent.

Course Outcomes:

On the Successful completion of this course the student will be able to-

1. Read and comprehend the prescribed pieces of prose, poetry, short story and one act play
2. Use the learned grammatical concepts to speak and write good English

3. Write paragraphs and essays on the prescribed topics
4. Explore supplementary reading sources
5. Practice phonetics refer dictionary for finding out the correct pronunciation of a given word

UNIT I

8 HOURS

सक्तु प्रस्थस्य महत्त्वम्

[महभरते अश्वमेधपर्वणि]

बुद्धस्य वैरग्योदयः

[बुद्ध चरिते तृतीय सर्गः]

UNIT II HOURS

9

वैग्रानिक संहिता

न गङ्गदत्तःपुनरेतिकूपम्

[पञ्चतन्त्रे लब्ध प्रणशी मण्डूकराज कथा]

UNIT III

8 HOURS

मधुरोप देशः

[मधुर विजये तृतीय सर्गः]

दैवसुर सम्पद विभग योगः

[श्रीमद्भगवद्गीता]

UNIT IV

9 HOURS

धतवः

[निर्धारित धातवः]

संस्कृत सम्भाषणाभासः

UNIT V

8 HOURS

समासाः

[निर्धारित समासाः]

TEXT BOOK NAME : ARASWATI SUSAMA

GHG-109: Second Language (French I)
(Ability Enhancement Course - Elective)

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Course Description:

The Second Language course is designed as an informative and interactive introduction to the language. It aims at enabling the students to learn the basics of the target language including the structures and vocabulary necessary for comprehension of the selected texts and messages communicated in everyday situations. It focuses on using the language for basic communication in addition to enhancing awareness about the linguistic and cultural diversity in contemporary society.

Course Objectives:

1. Develop an interest in the target language among the learners
2. Enable the learner to acquire basic skills in the target language to comprehend written and spoken messages and communicate with native speakers in real life situations
3. Create awareness about the language and its socio-cultural context for effective Communication
4. Understand the role of communication in personal & professional success.
5. Prepare and present messages with a specific intent.

Course Outcomes:

On the Successful completion of this course the student will be able to-

1. Read and comprehend the prescribed pieces of prose, poetry, short story and one act play
2. Use the learned grammatical concepts to speak and write good French
3. Write paragraphs and essays on the prescribed topics
4. Explore supplementary reading sources
5. Practice phonetics refer dictionary for finding out the correct pronunciation of a given word

Unit I

8 Hours

Grammar and Vocabulary: Usage of the French verbs in the present tense “etre” avoir” “se presenter” “parler”. Subject pronouns, definite and indefinite articles. Vocabulary in use for introducing one self and introducing others, vocabulary of professions, numbers, nationalities, months, days.

Listening and Speaking: The authentic sounds of the letters of the French alphabet and the accents that play a vital role in the pronunciation of the words.

Writing: short text of self-introduction and introduction of others

Reading: Reading of the text and comprehension – answering of close ended questions.

Unit II

9 Hours

Grammar and Vocabulary: “prepositions de lieu” negative sentences with ne, pas, pronoms toniques, difference between c’est , il est, elle est. Possessive pronouns. Vocabulary of family.

Listening and Speaking: pronunciation system of French language, la liaison – vous etes, vous appelez and role play for locating a place.

Writing: particulars in filling an enrollment / registration form, description of a place, of one’s family members.

Reading Comprehension: reading a text of a famous scientist and answering questions.

Unit III

8 Hours

Grammar and Vocabulary: present tense of regular ending with –er, -ir. Adjectives for masculine and feminine gender. Vocabulary of seasons of the year and leisure activities. Likes and dislikes, asking questions

Listening and Speaking: To express one’s likes and dislikes and to talk of one’s pastime activities (sports activities), je fais du ping-pong and nasal sounds of words – janvier, champagne

Writing: descriptions of people and short passages of one’s likes and dislikes. Writing an autportrait. Paragraph writing on one’s leisure activity- (passe-temps préféré).

Reading: a text on seasons and leisure activities – answering questions.

Unit IV

9 Hours

Grammar and Vocabulary: les verbes de direction- to ask one’s way and to give directions, verbes-pouvoir and vouloir and verbs ending with –dre, -re. vocabulary relating to accommodation. Inviting persons home for a function, party or a get together. Accepting and refusing invitations.

Listening and Speaking: to read and understand the metro map and hence to give one directions – dialogue between two people. Booking a hotel room. asking about the different facilities available in a hotel, negotiating tariffs. Inviting people to restaurant/cinema/ outing/home.

Writing: paragraph writing describing the accommodation using the different prepositions like en face de, derriere- to locat. invitation letters, e-mails inviting people, e-mail responding to invitations, sms texts for refusing or accepting invitations.

Reading Comprehension: a text / a dialogue between two on location and directions. reading invitation letters.

Unit V

8 Hours

Grammar and Vocabulary: pronominal verbs, imperative tense, passé compose, vocabulary of daily activities, hotel bookings.

Listening and Speaking: dialogues relating to hotel bookings, ticket bookings, daily activities, giving suggestions.

Writing: paragraph writing of one's activities in present and in past tense

Reading Comprehension: a text / a dialogue between two hotel bookings, asking for facilities.

Reference books:

Panorama

Berthet, Annie, et al., *Alter Ego +*. Hachette. 2013.

Erotopoulos, Zoe, et al. *French for Dummies*. John Wiley & Sons, Inc. NJ. 2011.

Hachette French Made Easy Beginners -Goyal publishers. 2011

GHG-110: Second Language (French II) (Ability Enhancement Course- Elective) (w.e.f. 2020-2021 admitted batch)

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Course Description:

The Second Language course is designed as an informative and interactive introduction to the language. It aims at enabling the students to learn the basics of the target language including the structures and vocabulary necessary for comprehension of the selected texts and messages communicated in everyday situations. It focuses on using the language for basic communication in addition to enhancing awareness about the linguistic and cultural diversity in contemporary society.

Course Objectives:

1. Develop an interest in the target language among the learners
2. Enable the learner to acquire basic skills in the target language to comprehend written and spoken messages and communicate with native speakers in real life situations
3. Create awareness about the language and its socio-cultural context for effective Communication
4. Understand the role of communication in personal & professional success.
5. Prepare and present messages with a specific intent.

Course Outcomes:

On the Successful completion of this course the student will be able to-

1. Read and comprehend the prescribed pieces of prose, poetry, short story and one act play
2. Use the learned grammatical concepts to speak and write good English
3. Write paragraphs and essays on the prescribed topics
4. Explore supplementary reading sources
5. Practice phonetics refer dictionary for finding out the correct pronunciation of a given word

Unit I

8 Hours

Grammar and Vocabulary: revision of past tense (passé composé), imparfait.

Listening and Speaking: talking of past using both past tenses, childhood memories

Writing: childhood memories, texts using past tenses.

Reading: text relating to biographies of famous personalities

Unit II

9 Hours

Grammar and Vocabulary: future tense : futur proche, futur simple vocabulary relating to weather forecast, landscapes

Listening and Speaking: future projects, weather bulletins, ambitions.

Writing: paragraph writing on future projects.

Reading Comprehension: reading of text relating weather forecast, location and description of regions, cities and countries

Unit III

8 Hours

Grammar and Vocabulary: articles partitifs, complement d'objet direct, complement d'objet indirect. Vocabulary relating to food items.

Listening and Speaking: recipes, culinary likes and dislikes, film reviews, dialogues on ordering food in a restaurant.

Writing: paragraph writing on general topics using COI/COD

Reading: Text on general informative topics such as film reviews, restaurant reviews

Unit IV

8 Hours

Grammar and Vocabulary: vocabulary of house, furniture.

Listening and Speaking: dialogue with house owner to rent an apartment/ house.

Writing: description of one's own house, school, college.

Reading: Comprehension: reading a classified advertisement.

Unit V

9 Hours

Grammar and Vocabulary: pronom relatif pronom y et en

Listening and Speaking: description of one's own room, house, school, college.

Writing: writing a classified advertisement

Reading Comprehension: charter of change in society, city.

Reference books:

Panorama Berthet, Annie, et al., *Alter Ego +* . Hachette. 2013.

Erotopoulos, Zoe, et al. *French for Dummies*. John Wiley & Sons, Inc. NJ. 2011.

Hachette French Made Easy Beginners -Goyal publishers. 2011

GHG-111: Second Language (German I)
(Ability Enhancement Course - Elective)

L T P C
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Course Description:

The Second Language course is designed as an informative and interactive introduction to the language. It aims at enabling the students to learn the basics of the target language including the structures and vocabulary necessary for comprehension of the selected texts and messages communicated in everyday situations. It focuses on using the language for basic communication in addition to enhancing awareness about the linguistic and cultural diversity in contemporary society.

Course Objectives:

1. Develop an interest in the target language among the learners
2. Enable the learner to acquire basic skills in the target language to comprehend written and spoken messages and communicate with native speakers in real life situations
3. Create awareness about the language and its socio-cultural context for effective Communication
4. Understand the role of communication in personal & professional success.
5. Prepare and present messages with a specific intent.

Course Outcomes:

On the Successful completion of this course the student will be able to-

1. Read and comprehend the prescribed pieces of prose, poetry, short story and one act play
2. Use the learned grammatical concepts to speak and write good English
3. Write paragraphs and essays on the prescribed topics
4. Explore supplementary reading sources
5. Practice phonetics refer dictionary for finding out the correct pronunciation of a given word

Unit I

8 Hours

Introduction to German -greetings, identifying countries and their capital cities, identifying the directions, introducing oneself and others, read and write numbers till 20, Read and write telephone numbers and e-mail addresses, talk about hobbies.

Grammar - question words, sentence structure, verbs and personal pronouns.

Pronunciation of alphabets

Unit II

8 Hours

Language: Read and write days, seasons, months, talk about work and working hours, talk about a place or building, discussing household situations.

Grammar: gender and articles, yes/no questions, plural forms.

Pronunciation: Questions and answers.

Unit III

9 Hours

Language: Read and sort sentences of a picture story, describing shape, size and color of objects, describe means of transportation, ask and give directions to a place, talk about food.

Grammar: Definite, indefinite, negation articles, Imperative sentences with “Sie”.

Pronunciation: Long and short vowels, Umlauts.

Unit IV

8 Hours

Language: Shopping, talk to sales person while purchasing goods, return faulty goods at a shop, asking someone to repeat something, Refusing or declining politely, Express time in German language, talk about one’s family.

Grammar: nominative and accusative cases, modal verbs.

Pronunciation: Diphthongs.

Unit V

9 Hours

Language: Make appointments over phone, understand and write an invitation, order in a restaurant and pay, look for particular information in a given text.

Grammar: Possessive articles, separable verbs, Prepositions for accusative case, past tense.

Pronunciation: ei, eu, au.

Reference books:

Dengler, Stefanie. *Netzwerk: Deutsch als Fremdsprache A1*, Klett-Langenscheidt, 2015.

Deutsch als Fremdsprache IA Grundkurs

Ultimate German Beginner - Intermediate(Coursebook), Living Language, 2004.

Moment Mal!: Deutsch als Fremdsprache, Langenscheidt, 1996.

GHG-112: Second Language (German II) (Ability Enhancement Course - Elective)

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Course Description:

The Second Language course is designed as an informative and interactive introduction to the language. It aims at enabling the students to learn the basics of the target language including the structures and vocabulary necessary for comprehension of the selected texts and messages communicated in everyday situations. It focuses on using the language for basic communication in addition to enhancing awareness about the linguistic and cultural diversity in contemporary society.

Course Objectives:

1. Develop an interest in the target language among the learners
2. Enable the learner to acquire basic skills in the target language to comprehend written and spoken messages and communicate with native speakers in real life situations
3. Create awareness about the language and its socio-cultural context for effective Communication
4. Understand the role of communication in personal & professional success.

5. Prepare and present messages with a specific intent.

Course Outcomes:

On the Successful completion of this course the student will be able to-

1. Read and comprehend the prescribed pieces of prose, poetry, short story and one act play
2. Use the learned grammatical concepts to speak and write good English
3. Write paragraphs and essays on the prescribed topics
4. Explore supplementary reading sources
5. Practice phonetics refer dictionary for finding out the correct pronunciation of a given word

Unit I**8 Hours**

Language: Arrange appointments, Understand and give instructions, understand and respond to a letter, understand discussions and situations, describe a home, understand a house ad, understand a house plan.

Grammar: Dative prepositions, Possessive articles, Dative articles, adjectives with be-form.
Pronunciation: Long and short e.

Unit II**9 Hours**

Language: Respond to an invitation in writing, talk about house furniture, standards for writing letters, describe a day in a person's life, talk about a happening.

Grammar: changing prepositions with dative case, Perfect tense. Pronunciation: "s" and "sch" pronunciation.

Unit III**8 Hours**

Language: Understand job advertisements, express opinions about jobs, understand blogs about jobs, to prepare a telephone discussion, make phone calls and enquire, understand the information about a city and do research.

Grammar: Partizip II for regular and irregular verbs, Join sentences with "und", "oder", and "aber".
Pronunciation: listen and pronounce h, Verbs with prefix.

Unit IV**9 Hours**

Language: Talk about dressing, shopping for dresses, to report about the past, lead a discussion on purchasing dresses, orient oneself about a shopping complex, discussion with doctor, describe the weather.

Grammar: imperative sentences, Verbs with dative case. Pronunciation: Consonants.

Unit V**8 Hours**

Language: Understand the suggestions for city tour, describe a path, write a post card, describe a problem in a hotel, talk about the travel destination.

Grammar: Pronouns, time adverbs, sentence formation. Pronunciation: Consonants.

Text book

Dengler, Stefanie. *Netzwerk: Deutsch als Fremdsprache A1*, Klett-Langenscheidt, 2015.

Reference books:

Deutsch als Fremdsprache IA Grundkurs

Ultimate German Beginner - Intermediate(Coursebook), Living Language, 2004.

Moment Mal!: Deutsch als Fremdsprache, Langenscheidt, 1996.

GHG-113: The Culture and Heritage of India (Foundation)

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Course Description:

The course gives an introduction to the cultures of India and the importance of its multiple traditions. It aims to familiarize learners with significant aspects of the culture and heritage of India and acquaint them with the contributions of our ancestors in the areas of religion, philosophy, science, arts, education, languages and literature. It also provides insights into how Indian culture has evolved over time and how it influences other cultures around the world.

Course Objectives:

1. Develop a broad understanding of Indian society and provide learners an opportunity for enhancing their cultural literacy.
2. Enable learners to deepen their knowledge of Indian socio-cultural issues through coursework, local engagement, and mini projects.
3. Help learners identify and critically analyse social issues and challenges that India is facing in the contemporary world.
4. Inculcate nationalist spirit among students
5. Help students engage with their contemporary Indian society in a more responsible and respectful manner

Course Outcomes:

At the end of the course, student will be able to

1. gain a broad understanding of Indian society and provide learners an opportunity for enhancing their cultural literacy.
2. deepen their knowledge of Indian socio-cultural issues through coursework, local engagement, and mini projects.
3. identify and critically analyse social issues and challenges that India is facing in the contemporary world.
4. cultivate nationalist spirit among themselves
5. engage with their contemporary Indian society in a more responsible and respectful manner

Unit I

5 Hours

Introduction to the idea of heritage in the discourse of state, maps and borders.

Essential Reading:

Hancock, Mary E. Making the Past in a Global Present: Chennai's New Heritage. *The Politics of Heritage from Madras to Chennai*. Indiana university Press: Bloomington. 2008

Unit II**6 Hours**

Introduction to Indian architecture, styles, forms and contextualising in the present as well as diasporic scenarios.

Essential Reading:

Parikh, Pranali R. Sense of Identity, Continuity and Context. *NEW ARCHITECTURE AND URBANISM : Development of Indian Traditions*. Deependra Prashad (ed.). Cambridge Scholars Publishing: New Castle. 2010.

Unit III**5 Hours**

Introduction to the coming up of Indian classical music tradition through developments of schools, associations and its popularity.

Essential Reading:

Bakhle, Janaki. A Critical History of Music: Beyond Nostalgia and Celebration. *Two Men and Music: Nationalism in the Making of an Indian Classical Tradition., 1916-1928*. OUP: Oxford. 2005.

Unit IV**5 Hours**

Introduction to Indian painting: Traditions, patronage and maturity.

Essential Reading:

Kossak, Steven. *Four Centuries of Indian Painting. Indian Court Painting: 16th-19th century*. The Metropolitan Museum of Art: New York. 1997.

Unit V**6 Hours**

Introduction to Indian Food culture, its proliferation and evolution through ages

Essential Reading:

Banerji, Chitrita. A Southern Thali in Karnataka. *Eating India: An Odyssey into the food and culture of the land of spices*. Bloomsbury: New York. 2007.

Reference Books:

Guha-Thakurta, Tapati. *Monuments, Objects, Histories : Institutions of Art in Colonial and Post-Colonial India*. Columbia University Press: Columbia. 2004.

Philips, Kristina Kate. *A Museum for the Nation: Publics and Politics of National Museum of India* (Unpublished). University of Minnesota: Minnesota. 2006.

Page-John Burton. J. Bronkhorst (ed.). *Handbook of Oriental Studies/Introduction to Islamic Architecture, Vol.20*. Brill: Leiden,Boston. 2008.

Radhakrishnan, S. *Religion, Science and Culture*. Orient Paperbacks.1994.

Ramusack, Barbara N. *Indian Princes and Their States*. CUP: Cambridge. 2008.

Sen, Colleen Taylor. *Feasts and Fasts: A History of Food in India*. Reaktion Books: London. 2015.

Thapar, Bindia. *Introduction to Indian Architecture*. Periplus: Singapore. 2004.

Tolia-Kelly, Divya P, Emma Waterton and Steve Watson (eds.). *Heritage, Affect and Emotion: Politics, practices and infrastructures*. Routledge: London, New York. 2017.

GHG-119: Second Language (Spanish I)
(Ability Enhancement Course - Elective)
(w.e.f. Admitted Batch 2020-2021)

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2 0 2 3

Course Description:

The Second Language course is designed as an informative and interactive introduction to the language. It aims at enabling the students to learn the basics of the target language including the structures and vocabulary necessary for comprehension of the selected texts and messages communicated in everyday situations. It focuses on using the language for basic communication in addition to enhancing awareness about the linguistic and cultural diversity in contemporary society.

Course Objectives:

1. Develop an interest in the target language among the learners
2. Enable the learner to acquire basic skills in the target language to comprehend written and spoken messages and communicate with native speakers in real life situations
3. Create awareness about the language and its socio-cultural context for effective Communication
4. Understand the role of communication in personal & professional success.
5. Prepare and present messages with a specific intent.

Course Outcomes:

On the Successful completion of this course the student will be able to-

1. Read and comprehend the prescribed pieces of prose, poetry, short story and one act play
2. Use the learned grammatical concepts to speak and write good Spanish
3. Write paragraphs and essays on the prescribed topics
4. Explore supplementary reading sources
5. Practice phonetics refer dictionary for finding out the correct pronunciation of a given word

Unit I

8 Hours

Greetings and introductions, Personal information: nationality, occupation, address, age, marital status, formal and informal ways of addressing people, alphabet, numbers, instructions in class, countries and nationalities and family.

Functions: Asking for and giving personal information; Using formal and informal modes of address; Talking about the family
Grammar: Number and gender; Articles - definite and indefinite; Demonstrative pronouns - Personal pronouns, Uses of Hay, Interrogative pronouns

Unit II

9 Hours

Describing objects/people/places, discover Spain and Latin America: the Spanish language in the world, the population of Latin America, and the family in the Spanish speaking world.

Functions: Asking for and giving personal information; Using formal and informal modes of address; Talking about the family

Grammar: Adjective agreement; Present Tense: regular and irregular verbs; Ser and estar

Unit III

8 Hours

Common everyday objects, money and numbers, shopping, town & city, house and furniture, likes and dislikes, sports and leisure, the time and days of the week & months

Functions: Making simple purchases; Describing towns; Describing your city/town; Describing your house/flat

Grammar: Prepositions of place; Reflexive verbs; Object pronouns

Unit IV

9 Hours

The weather, public time tables, discover Spain & Latin America: markets in Peru, the geography of Latin America, housing in Spain, Latin, American music, daily routine and weekends and leisure activities / activities and things that you can /cannot do.

Functions: Expressing likes and dislikes; Talking about sports and free time activities; Asking and giving information about opening times of public places

Grammar: Gerund; Present Perfect Tense

Unit V

8 Hours

The work, transport and time tabling, Simple past tense, discover Spain & Latin America: free time activities in the Spanish speaking world, travelling in Peru and famous Latin American people.

Functions: Talking about daily routines; Talking about weekend activities; Talking about your work / studies, how you get to work and what you like the most about it; Talking about activities that you are good at; Describing what you did yesterday/last weekend

Grammar: Present tense: irregular verbs; Prepositions; Adverbs of frequency;

Verb + Infinitive; Preterite tense

Learning Resources

Textbook cum workbook:

AULA INTERNACIONAL (A2-B1), CURSO DE ESPANOL BY Jaime Corpas / Eva Garcia / Augustin Garmendia / Carmen Soriano published by Goyal Publishers & Distributors (P) Ltd. Delhi.

An exercise book may also be recommended. The teacher will supply additional material, both tailor- made and taken from other sources (textbooks, newspapers, and new media).

GHG-114: Second Language (Spanish II)
(Ability Enhancement Course - Elective)
(w.e.f Admitted Batch 2020-2021)

Course Description:

The Second Language course is designed as an informative and interactive introduction to the language. It aims at enabling the students to learn the basics of the target language including the structures and vocabulary necessary for comprehension of the selected texts and messages communicated in everyday situations. It focuses on using the language for basic communication in addition to enhancing awareness about the linguistic and cultural diversity in contemporary society.

Course Objectives:

1. Develop an interest in the target language among the learners
2. Enable the learner to acquire basic skills in the target language to comprehend written and spoken messages and communicate with native speakers in real life situations
3. Create awareness about the language and its socio-cultural context for effective Communication
4. Understand the role of communication in personal & professional success.
5. Prepare and present messages with a specific intent.

Course Outcomes:

On the Successful completion of this course the student will be able to-

1. Read and comprehend the prescribed pieces of prose, poetry, short story and one act play
2. Use the learned grammatical concepts to speak and write good Spanish
3. Write paragraphs and essays on the prescribed topics
4. Explore supplementary reading sources
5. Practice phonetics refer dictionary for finding out the correct pronunciation of a given word

Unit I

8 Hours

Spanish wishes and needs, plans and projects, certainty and probability, physical condition, illness and remedies, shopping for food and going to restaurants

Functions: Asking and talking about future plans and intentions; Expressing obligation; Expressing feelings, wishes and needs; Expressing pain; Making suggestions, offering, accepting and refusing; Buying food

Grammar: Quiero/Me gustaría + Infinitive; Ir a / Hay que+ Infinitive; Verb: Doler; Irregular Present Tense; Countable and uncountable nouns

Unit II

9 Hours

Recent events, Personal experiences, apologies and excuses, shopping for clothes, A birthday party, food and drink, presents and congratulations

Functions: Making comparisons; Expressing wishes; Buying clothes; Asking, giving and refusing permission; Talking about what you are doing; Ordering a meal in a restaurant; Talking about recent activities; Apologizing and giving excuses; Talking about personal experiences

Grammar: Comparatives; Direct Object pronouns; Present continuous; Some uses of Ser/estar; Indefinite adjectives and pronouns; Present Perfect Tense; Con + personal pronoun

Unit III

8 Hours

Travelling (I), biographies., important events in life, Social situations, telephone conversations, appointments and invitations, travelling (II), City life: public places, transport and directions.

Functions: Talking about the past; Describing a journey; Asking for help; Borrowing and lending

Grammar: Simple Past: regular and irregular verbs; Prepositions; Affirmative

Unit IV

9 Hours

Telephone conversations, appointments and invitations, travelling (II), City life: public places, transport and directions and leisure activities

Functions: Talking on the phone; Talking about dates and times; Talking about past activities/events; Expressing preferences; Making arrangements: suggesting, inviting, accepting and refusing; Asking for directions

Grammar: Irregular present tense; Comparatives; Verb preferir; Pretérito Indefinido (Simple Past): regular and irregular verbs

Unit V

8 Hours

Objects, shapes and material, speaking about historical events, childhood and memories and personality traits

Functions: Describing places; Learning about ancient civilizations and their environments; Describing objects and their uses; Expressing possession; Describing people's personalities

Grammar: Pretérito Imperfecto(Imperfect): regular and irregular verbs; Prepositional phrases; Different uses of ser para/de/ ser; Direct and Indirect Object Pronouns

Learning Resources

Textbook cum workbook:

AULA INTERNACIONAL (A2-B1), CURSO DE ESPANOL BY Jaime Corpas / Eva Garcia / Augustin Garmendia / Carmen Soriano published by Goyal Publishers & Distributors (P) Ltd. Delhi.

An exercise book may also be recommended. The teacher will supply additional material, both tailor- made and taken from other sources (textbooks, newspapers, and new media).

GHG-116: Our Environment (Foundation)

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Course Description:

The course provides students with a broad interdisciplinary framework for understanding the relationship between humans and their environment. It aims to equip the students with the knowledge and informed perspectives on relevant social issues and problems to help them understand responsible environmental policy and practice. The course attempts to engage students in ethical reflection regarding environmental problems at the local, regional, national, and global levels.

Course Objectives:

1. Introduce to students the various aspects of the natural environment in which they live
2. Enhance a sense of informed sensitivity among them towards their natural environment

3. Equip students with the knowledge and skills necessary to adopt best practices for conserving natural resources and protecting our environment
4. Provide strategies to help students integrate knowledge from multiple disciplines and perspectives to understand the implications of humans' interactions with their environments
5. Prepare students for careers, citizenship and environmental stewardship through awareness building and experiential learning

Course Outcomes:

At the end of this course, student will be able to

1. understand the various aspects of the natural environment in which they live
2. experience increased sensitivity towards their natural environment
3. gain knowledge and skills necessary to adopt best practices for conserving natural resources and protecting our environment
4. acquire strategies to integrate knowledge from multiple disciplines and perspectives to understand the implications of humans' interactions with their environments
5. get ready for careers, citizenship and environmental stewardship through awareness building and experiential learning

Unit I

8 Hours

Natural Resources: Forest resources, water resources, mineral resources, food resources, energy resources and land resources; role of an individual in conservation of natural resources; equitable use of resources for sustainable lifestyles

Unit II

9 Hours

Ecosystems: Structure and function; producers, consumers and decomposers; energy flow in the ecosystem; ecological succession; food chains, food webs and ecological pyramids; characteristic features of forest ecosystem, grassland ecosystem, desert ecosystem, aquatic ecosystems

Unit III

8 Hours

Biodiversity and its Conservation: Genetic, species and ecosystem diversity, biogeographical classification of India; India as a mega-diversity nation; hot-spots of biodiversity; threats to biodiversity; endangered and endemic species of India; conservation of biodiversity

Unit IV

8 Hours

Environmental Pollution: Causes, effects and control measures; solid waste management; role of an individual in prevention of pollution; disasters

Unit V

9 Hours

Social Issues and the Environment: Sustainable development; urban energy problems, water conservation; resettlement and rehabilitation; wasteland reclamation; environment protection act, wildlife protection act, forest conservation act

Reference books:

Bharucha, E. *Environmental Studies*. New Delhi: University Grants Commission. 2004.
Moorthy, B.K. *Environmental Management*. New Delhi: Prentice-Hall of India. 2007.

Basak, A. *Environmental Studies*. New Delhi: Pearson. 2009.

GHG-120: Soft Skills
(Ability Enhancement Course – Compulsory)

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Course Description:

The course aims at helping the students develop a wide variety of soft skills and awareness about the dynamics of teamwork, different environments, emotional sensitivity, creative and critical thinking skills for problem solving and decision making, reducing stress and resolving conflict in ourselves and in our interactions with others. The course is activity based and a wide range of relevant issues are discussed and strategies for application of skills learned provided in order to enable students to perform effectively in workplace and social environments. The focus areas are conversation, teamwork, persuasion, presentation, and emotional intelligence.

Course Objectives:

1. Enable learners to build strong interpersonal skills for professional and personal growth
2. Build awareness on emotional intelligence
3. Equip the learners with the skills to understand others without depending upon assumptions
4. Help learners develop the ability to understand multiple perspectives
5. Enable them to learn strategies for effective problem solving and decision making

Course Outcomes:

At the end of the course, students will be able to

1. build strong interpersonal skills for professional and personal growth
2. gain awareness on emotional intelligence
3. acquire skills to understand others without depending upon assumptions
4. develop the ability to understand multiple perspectives
5. learn strategies for effective problem solving and decision making

Unit I

8 Hours

Introduction to Soft Skills: Meaning, scope, portability and value of soft skills; Soft skills for inner strength and interpersonal effectiveness; Aspects of soft skills; Relationship between soft skills and hard skills; Soft Skills in various contexts; Role of communication in Soft Skills

Unit II

9 Hours

Self management skills: Self confidence and self motivation - positive thinking and growth mindset; Self-Awareness and reflection - knowing and understanding oneself, observing oneself objectively; Intra-personal skills - emotional intelligence; Creative and critical thinking for problem solving and decision making; Resilience, handling stress and coping with change; Recognizing negativity; Visualization and positive affirmation

Unit III

8 Hours

Interpersonal skills: Patience, perceptiveness and empathy; Handling mental and emotional 'baggage' - 'forgiving and forgetting'; Dealing with difficult personalities and situations; Influence/persuasion skills; Soliciting opinions and feedback; Coordinating with people to arrive at common decisions; Socio-cultural aspects of interpersonal interactions

Unit IV

9 Hours

Advanced Skills for successful careers: Collaborative skills; Leadership - communicating vision and ideas that inspire others to follow, creating and motivating a high performing team; Teamwork - working with people of varied skills, personalities, motivations, and work styles; Mentoring skills - providing guidance and constructive feedback that can help others improve; Negotiation Skills

Unit V

8 Hours

Professional Etiquette: Customary code of polite behaviour in a professional setting; Introductions and first impressions; Meeting etiquette (on-site meetings and teleconferences); Telephone and e-mail etiquette; Networking - to be interesting and interested; Ability to understand and deal proactively with the unspoken nuances of people dynamics in order to protect oneself from unfairness as well as further one's own career

Reference books:

- Claus, Peggy. *The Hard Truth about Soft Skills*. Australia: Harper Collins Publishers Pty. Ltd. 2007.
- Butterfield, Jeff. *Soft Skills for Everyone*. New Delhi: Cengage Learning. 2010.
- Chauhan, G.S. and Sangeeta Sharma. *Soft Skills*. New Delhi: Wiley. 2016.
- Goleman, Daniel. *Working with Emotional Intelligence*. London: Bantam Books. 1998.
- Hall, Calvin S. et al. *Theories of Personality*. New Delhi: Wiley. rpt. 2011.
- Holtz, Shel. *Corporate Conversations*. New Delhi: PHI. 2007.

GHG-121: Fundamentals of ICT
(Ability Enhancement Course - Compulsory)

L T P C
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Course Description:

The course aims at equipping students with the knowledge and skills of ICT that are essential to perform efficiently in any contemporary workplace. Learners would be given the opportunity to learn and practise routine tasks related to the creation of business documents, perform data analysis and use appropriate tools for its graphical representation, and use AV aids to make presentations. The course introduces the students to the use of office automation tools such as word processing, spreadsheets and collaborative work tools. The aim of the course is to help students acquire basic industry identified computer competency.

Course Objectives:

1. Impart skills to create business documents, and perform data analysis
2. Empower the students to use appropriate tools for graphical representation and use audio-visual aids to make presentations
3. Enable learners to confidently use the computer for internet services, electronic documentation, data analysis, and presentations.
4. Help learners understand the ethical considerations related to the use of the internet and various digital tools and resources for knowledge sharing and work.
5. Equip learners with basic computer skills for efficient and effective performance in the academic and professional contexts.

Course Outcomes:

At the end of the course, learners should be able to

1. gain skills to create business documents, and perform data analysis
2. use appropriate tools for graphical representation and use audio-visual aids to make presentations
3. use the computer for internet services, electronic documentation, data analysis, and presentations.
4. understand the ethical considerations related to the use of the internet and various digital tools and resources for knowledge sharing and work.
5. gain basic computer skills for efficient and effective performance in the academic and professional contexts.

Unit I

4 Hours

Introduction to Information Technology: Definition and elements of IT; computer system; networking: definition, types of networks: LAN, MAN, WAN, the Internet and its applications, Web browsers, Network settings.

Unit II

5 Hours

Introduction to MS Office and MS Word: Components of MS Office, applications of MS Office, MS Word; working with MS Word documents: text formatting, working with tables, spelling and grammar, adding graphics to document, mail merge

Unit III

5 Hours

MS PowerPoint: Creating presentations; working with slides - slide design and slide layout; working with animation; working with graphics - pictures, clipart, audio clips, video clips

Unit IV

6 Hours

MS Excel: Working with MS Excel Workbook, worksheet management, formulae and functions, inserting charts, sorting, filters, printing in Excel

MS Access: Basic database concepts – definition, advantages, integrity constraints and keys, creating database in MS access, creating Reports in MS Access.

Unit V

6 Hours

Google Productivity Tools: Google Drive, Google Slides, Google Docs, Google Forms, Google Sheets

Google Sites: Google site creation, Integrate google documents, spreadsheets, presentations, and other Google Apps into your site.

Text Book

Gary B Shelly, Thomas J Cashman, Misty E Vermaat. *Microsoft Office 2007*, New Delhi: Cengage Learning India Limited. 2010.

Nancy Conner, Google Apps: The Missing Manual, "O'Reilly Media, Inc.", 27-May-2008

Reference books:

Bandari Vinod Babu. *Fundamentals of Information Technology*, New Delhi: Pearson Education. 2012.

ITL ESL. *Fundamentals of Computers*, New Delhi: Pearson Education. 2011.

**GHG 201: Human Values and Ethics: Understanding
Harmony
(Foundation Course)
(w.e.f. Admitted Batch 2020-2021)**

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Course Description:

The course takes an integrative approach to human values and ethics with a view to enhancing the learners' awareness and understanding of the concepts and practices of living responsibly, mindfully and sustainably. The course aims at preparing the students to engage with others empathetically and face the challenges of life competently.

Course Objectives:

1. Help learners understand and engage in mindful practices to become more conscientious, responsible and ethically informed.
2. Provide opportunities for insightful readings, critical analysis and meaningful discussions on various challenges and complexities of life
3. Motivate them with a focus on transformative change.
4. Encourage students to apply the knowledge and insights gained from the course to real life problems
5. Enable them to explore and identify best practices in an area of professional interest.

Course Outcomes:

At the end of the course, students will be able to

1. understand and engage in mindful practices to become more conscientious, responsible and ethically informed.
2. engage in insightful readings, critical analysis and meaningful discussions on various challenges and complexities of life
3. cultivate a focus on transformative change.
4. apply the knowledge and insights gained from the course to real life problems
5. explore and identify best practices in an area of professional interest.

Unit I

8 hours

Course Introduction - Need, Basic Guidelines, Content and Process for Value Education

Purpose and motivation for the course, recapitulation from Universal Human Values-I.

Self-Exploration–what is it? - Its content and process; ‘Natural Acceptance’ and Experiential Validation- as the process for self-exploration.

Continuous Happiness and Prosperity- A look at basic Human Aspirations

Right understanding, Relationship and Physical Facility- the basic requirements for fulfilment of aspirations of every human being with their correct priority.

Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario

Method to fulfil the above human aspirations: understanding and living in harmony at various levels.

Unit II

8 hours

Understanding Harmony in the Human Being - Harmony in Myself!

Understanding human being as a co-existence of the sentient ‘I’ and the material ‘Body’.

Understanding the needs of Self ('I') and 'Body' - happiness and physical facility.
Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer).
Understanding the characteristics and activities of 'I' and harmony in 'I'.
Understanding the harmony of I with the Body: Sanyam and Health; correct appraisal of Physical needs, meaning of Prosperity in detail.
Programs to ensure Sanyam and Health.

Unit III

8 hours

Understanding Harmony in the Family and Society- Harmony in Human-Human Relationship

Understanding values in human-human relationship; meaning of Justice (nine universal values in relationships) and program for its fulfilment to ensure mutual happiness; Trust and Respect as the foundational values of relationship
Understanding the meaning of Trust; Difference between intention and competence
Understanding the meaning of Respect, Difference between respect and differentiation; the other salient values in relationship
Understanding the harmony in the society (society being an extension of family): Resolution, Prosperity, fearlessness (trust) and co-existence as comprehensive Human Goals
Visualizing a universal harmonious order in society- Undivided Society, Universal Order- from family to world family.

Unit IV

8 hours

Understanding Harmony in the Nature and Existence - Whole existence as Coexistence

Understanding the harmony in the Nature
Interconnectedness and mutual fulfilment among the four orders of nature- recyclability and self-regulation in nature.
Understanding Existence as Co-existence of mutually interacting units in all- pervasive space.
Holistic perception of harmony at all levels of existence.

Unit V

8 hours

Implications of the above Holistic Understanding of Harmony on Professional Ethics

Natural acceptance of human values; Definitiveness of Ethical Human Conduct; Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order
Competence in professional ethics: a. Ability to utilize the professional competence for augmenting universal human order b. Ability to identify the scope and characteristics of people friendly and eco-friendly production systems, c. Ability to identify and develop appropriate technologies and management patterns for above production systems.
1. Case studies of typical holistic technologies, management models and production systems
2. Strategy for transition from the present state to Universal Human Order:
a. At the level of individual: as socially and ecologically responsible engineers, technologists and managers
b. At the level of society: as mutually enriching institutions and organizations
3. Sum up.

Readings: Text Book

1. Human Values and Professional Ethics by R R Gaur, R Sangal, G P Bagaria, Excel Books, New Delhi, 2010

Reference Books

1. Jeevan Vidya: EkParichaya, A Nagaraj, Jeevan Vidya Prakashan, Amarkantak, 1999.
2. Human Values, A.N. Tripathi, New Age Intl. Publishers, New Delhi, 2004.
3. The Story of Stuff (Book).
4. The Story of My Experiments with Truth - by Mohandas Karamchand Gandhi.
5. Small is Beautiful - E. F Schumacher.
6. Slow is Beautiful - Cecile Andrews
7. Economy of Permanence - J C Kumarappa
8. Bharat Mein Angreji Raj - PanditSunderlal
9. Rediscovering India - by Dharampal
10. Hind Swaraj or Indian Home Rule - by Mohandas K. Gandhi
11. India Wins Freedom - Maulana Abdul Kalam Azad
12. Vivekananda - Romain Rolland (English)
13. Gandhi - Romain Rolland (English)

GHG-203: Understanding Globalization (Foundation)

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Course Description:

The course is intended to explain how social actors shape global processes. It will discuss Gender issues, Environmental issues at global level and its importance making politics between west and non-west countries. The course will also explain and analyze the concept of Global Village and its implications, Politics of language, and finally Globalization of India.

Course Objectives:

1. To explain how global processes are shaped
2. To sensitise students on global level gender and environmental issues
3. To introduce theories of Globalization
4. To enable them to understand reasons for global conflicts
5. To enable them to understand the process of Globalization.

Course Outcomes:

At the end of the course, students will be able to

1. understand how global processes are shaped
2. enhance their sensitivity on global level gender and environmental issues
3. understand theories of Globalization

4. understand reasons for global conflicts
5. understand the process of Globalization.

Unit I

9 Hours

Introduction - Theories of globalization: Politics of Globalization - globalization and economic crisis, shift in geo-political balance of power; Globalization and Development - how social actors (institutions; civil society; businesses; migrants; consumers; terrorists) shape global processes; Gender and Globalization - The centrality of gender and women's labor (paid and unpaid) to global economies.

Unit II

8 Hours

Climate Change: What is climate change, impact of global power struggles on the environment; Globalization and religious conflicts – ‘clash of civilisations’ between the West and non-West, forms of governance and economies as ideal forms of conflict resolution

Unit III

8 Hours

Global Village: How globalization impacted the traditional marketing and communication strategies. Globalization and stereotyping of communities; Nationalism and Globalization - National identity versus cosmopolitanism, business expansion across national borders and the movement of people and knowledge, promises of capitalism and economic crisis in underdeveloped countries.

Unit IV

9 Hours

Language of international communication: English as the business lingua franca and its consequences for minority languages; Politics of Visual Communication - impact of visual communication which disseminates knowledge and information across borders. International advertising and the impact of electronic media

Unit V

8 Hours

Globalization in India: Globalization and women empowerment, livelihood and exploitation of natural resources; New economic opportunities – globalization and traditional occupations, human resource development in the globalizing age

Reference books:

- Guthrie, D. *China and Globalization*, London: Routledge. 2009.
- Gupta, D. *Can India Fly?* Stanford: Stanford University Press. 2007.
- Palmer, G. *The Politics of Breastfeeding*. Pinter and Martin. 2009.
- Stiglitz, J. *Globalization and its Discontents*. Penguin. 2003.
- J. Bhagwati, *In Defence of Globalization*. chs. 1 and 4. 2007.
- M. Korzeniewicz. *Nike and the Global Athletic Footwear Industry*.
- J. Gray. “From the Great Transformation to the Global Free Market” in Lechner and Boli. *The Globalization Reader*. 2000.
- D. Croteau and W. Hynes. *The Business of Media*, 2005.
- E. Herman and W. McChesney. *The Global Media: The New Missionaries of Corporate Capitalism*. 1997.
- S. Ehrenreich. “Meeting the Challenge: English as a Business Lingua Franca in a German Multinational Corporation” *Journal of Business Communication*.
- J. McWhorter. *The Power of Babel. A history of Language*. 2001.chs 3 and 7

Maurenan and Ranta, *English as a Lingua Franca*, 2009, ch. 6 and 10
 C. Gopinath. *Globalization: Ch. 7. Global Business Influences*. 2008.
 C. Classen, and D. Howes, *Cross-Cultural Consumption*. 1994.
 M. De Mooij. *The Paradoxes in Global Marketing Communication*. 2011.
 T. Luke, *The Political Economy of Cyberspace in Spaces of Culture*. 1999.

GHG-205: Health and Well-being (Foundation)

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Course Description:

The course focuses on well-being as determined by physical and mental health, resilience, and overall life quality. It aims to provide learners with basic knowledge and understanding of social well-being and health as a whole package and enable them to gain insights into what contributes to fulfillment.

Course Objectives:

1. Enable students to understand relevant concepts such as work-life balance and what constitutes healthy behaviour.
2. Provide foundational knowledge of what can help one lead a healthy and fulfilling life.
3. Motivate learners to become more aware of their physical and mental health, emotional wellness, social well-being, and overall outlook on life.
4. Develop awareness of how college life can pose unique challenges to well-being
5. Identify key strengths that can support well-being

Course Outcomes:

On the successful completion of this course the student will be able to-

1. Understand principles of mental and physical well-being
2. Learn basic and enhanced strategies for self-care
3. Identify and practice techniques for bolstering or supporting mental and physical health
4. Explore concrete strategies for managing more common challenges like loneliness,
5. identity negotiations, stigma, unhealthy social media behavior, and many others

Unit I

9 Hours

Introduction (Components of health): Mind-body-spirit, feeling content, connected, energized, resilient, and safe; physical, mental and emotional dimensions; WHO model; Heredity and environment - impact of family, peer group and surrounding community; subjective and objective indicators of wellbeing.

Unit II

8 Hours

Health enhancing behaviours (physical): Body awareness; understanding one’s unique metabolism; notions of beauty and fitness; exercise, safety, nutrition; illness and pain - causes, consequences; coping strategies

Unit III

8 Hours

Health enhancing behaviours (psychological): Implications for well-being: psychological aspects - resilience, hope, optimism; stress and coping with stress; impact of psychological disturbances on the body; psychosomatic disorders; integrated approaches to well-being; mindfulness.

Unit IV

9 Hours

Maintaining work-life balance: Establishing boundaries; Handling multiple roles, expectations and needs; when and how to say ‘no’; planning and prioritizing; Time management - overcoming procrastination, knowing one’s distractions and minimizing them, managing personal and professional social media accounts; enriching one’s personal life.

Unit V

8 Hours

Socio economic factors: Impact of social, cultural and economic environment; variables and contributing factors; health equity and social justice; accessibility; anti-oppression and culturally safe practices; needs-based planning; community vitality and belonging.

Reference Books:

Sarafino, E.P. *Health psychology: Bio- psychosocial interactions* (4th Ed.). N Y: Wiley. 2002.
Snyder, C.R., & Lopez,S.J. *Positive psychology: The scientific and practical explorations of human strengths*. Thousand Oaks, CA: Sage. 2007.
DiMatteo, M.R. and Martin, L. R. *Health psychology*. New Delhi: Pearsons. 2002.

GHG-209: Cross-Cultural Communication

(Ability Enhancement Course - Compulsory)

| L | T | P | C |
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Course Description:

This course aims to prepare students to communicate effectively, efficiently, and empathetically with people from different cultures, geographical locations or social backgrounds. The course is activity based and provides opportunities to practise skills and strategies to understand how one’s verbal and non-verbal communication is interpreted by others and how that impacts one’s interactions with others in social and professional settings.

Course Objectives:

1. Equip learners with the knowledge, skills and tools needed to communicate appropriately and effectively in a cross-cultural environment.
2. Help learners develop strategies for overcoming social blind spots
3. Empower them to use techniques to mitigate the risk of ineffective communication in cross-cultural settings.
4. Enable learners to discover the ways in which they can adapt their communication style to

- the environment appropriately
5. Inculcate core values for impactful, empathetic and positive communication.

Course Outcomes:

At the end of the course, student should be able to

1. gain knowledge, skills and tools needed to communicate appropriately and effectively in a cross-cultural environment.
2. develop strategies for overcoming social blind spots
3. use techniques to mitigate the risk of ineffective communication in cross-cultural settings.
4. discover the ways in which they can adapt their communication style to the environment appropriately
5. imbibe core values for impactful, empathetic and positive communication.

Unit I

8 Hours

Introduction: Leading definitions of what constitutes 'intercultural communication'; variations in personal, social, and cultural identity; awareness of one's own and other's cultural identities; cultural barriers

Unit II

9 Hours

Exploration and Analysis: Exploration of story narratives; metaphors, and meanings related to interculturality; representation of select cultures in print and electronic media; impact of media; social perceptions of stereotypes; prejudice and discrimination related to intergroup contact

Unit III

8 Hours

Benefits: Benefits of intercultural applications; implications in personal life, business and education; exposure to and application of leading values frameworks and levels of analysis

Unit IV

8 Hours

Communication Behaviours: Analysis of situated cases; sources of intercultural misunderstanding; variations and perceptions of typical communication behaviours; taxonomies for understanding context, space, time and other contextual factors (hi-low context, proxemics, monochronic-polychronic, silence)

Unit V

9 Hours

Social learning engagement: Exposure and appreciation: cross-cultural complexity; cultural assumptions, expectations; experiential descriptions of culture shock and coping dynamics; adaptation processes; growth outcomes in cross-cultural transitions

Reference books:

- Cooper, J., Calloway-Thomas, Carolyn, & Simonds, C. *Intercultural Communication: A Text with Readings*. New York: Pearson. 2007.
- Asante, M., Mike, Y., & Yin, J. (Eds). *The Global Intercultural Communication Reader*. New York: Routledge. 2008.

- Chen, G., & Starosta, W. *Foundations of Intercultural Communication*. London: Allyn and Bacon. 1998.
- Condon, J. & Yousef, F. *An Introduction to Intercultural Communication*. New York: Macmillan Publishing Company. 1975.
- Fisher, G. *Mindsets: The Role of Culture and Perception in International Relations* (2nd edition). Yarmouth, Maine: Intercultural Press. 1997.
- Gannon, M. *Understanding Global Cultures: Metaphorical Journeys Through 28 Nations, Clusters of Nations, and Continents*. London: Sage Publications. 2004.
- Holliday, A., Hyde, M. & Kullman, J. *Intercultural Communication: An Advanced Resource Book*. London: Routledge. 2004.
- Jandt, F. *An Introduction to Intercultural Communication: Identities in a Global Community* (4th edition). London: SAGE Publications. 2004.
- Klopf, D. & McCroskey, J. *Intercultural Communication Encounters*. New York: Pearson. 2007.
- Mathews, G. *Global Culture/Individual Identity: Searching for Home in the Cultural Supermarket*. New York: Routledge. 2000.
- Min-Sunkim. *Non-Western Perspectives on Human Communication: Implications for Theory and Practice*. London: Sage Publications. 2002.
- Nisbett, R. *The Geography of Thought: How Asians and Westerners Think Differently...and Why*. New York: Free Press. 2003.
- Paige, R. *Education for the Intercultural Experience* (2nd edition). Yarmouth, Maine: Intercultural Press, Inc. 1993.
- Reagan, T. *Non-Western Educational Traditions: Alternative Approaches to Educational Thought and Practice* (2nd edition). London: Lawrence Erlbaum. 2000.
- Samovar, L., & Porter, R. (Eds.). *Intercultural Communication: A Reader* (9th edition). Belmont, CA: Wadsworth Publishing Company. 1999.
- Shaules, J. *Deep Culture: The Hidden Challenges of Global Living*. Toronto: Multilingual Matters. 2007.
- Tromenaars, F. & Hampden-Turner, C. *Riding the Waves of Culture: Understanding Diversity in Global Business* (2nd edition). New York: McGraw-Hill. 1998.
- Wierzbicka, A. *Understanding Cultures Through Their Key Words*. New York: Oxford University Press. 1997.
- Wierzbicka, A. *Cross-cultural Pragmatics: The Semantics of Human Interaction*. New York: Mouton de Gruyter. 2003.
- Wierzbicka, A. *English: Meaning and Culture*. New York: Oxford University Press. 2006.

GHG- 252: Public Speaking in English
(Generic Elective)

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Course Description:

This course aims at helping the students to become confident public speakers. It will provide an understanding of how to engage effectively with the audience and deliver a presentation with confidence.

Course Objectives:

1. Enable students to improve their language skills necessary for effective communication
2. Help the students to organise information at the sentence and discourse level
3. Equip the students to learn Interactive skills to to enhance comprehension
4. Enable them to engage effectively with audience
5. Empower them to adapt their speaking skills to the nature of the audience

Course Outcomes:

At the end of the course, students will be able to

1. improve their language skills necessary for effective communication
2. organise information at the sentence and discourse level
3. learn interactive skills to to enhance comprehension
4. engage effectively with audience
5. adapt their speaking skills to the nature of the audience

Unit I

8 Hours

Introduction: Difference between personal interaction and public speaking; kinds of speech delivery: impromptu, extemporaneous, manuscript, and memorized; idea building; research the topic area; target audience; cultivate poise and self-confidence: techniques to lessen speaker anxiety ; delivery style; making ideas compelling and memorable; objective and purpose: informative, persuasive, demonstrative, special occasion; become aware of personal speech habits and characteristics; use of appropriate language; posture, voice, diction, articulation; effective use of presentation aids

Unit II

8 Hours

Preparation: Action Points: Listen to and watch speeches of influential speakers: analyze and critique techniques, content, purpose, strengths and weaknesses; peer review: developing listening and feedback skills; identifying the topic; defining the scope; formulating specific purpose statement and central idea; compile reference list; do an audience analysis; drafting the speech; choosing and preparing suitable presentation aids; practice delivery; managing time

Unit III

9 Hours

Public Speaking for the Audio: Bringing intention into tone, voice and articulation; cultivate unique style; maintain conversational energy; impact of lack of body language; voice: power vs volume; maintaining pace and flow; strategic pauses; techniques to establish and maintain a connection with the audience; attention grabbing title; could act as a one to one medium; virtual stage

Unit IV

8 Hours

Public Speaking for the Video: Challenges of being in front of a camera; on-screen visual aids; attention to expressions, emotions and appearance; focus on body language; up-close audience;

rehearse and refine content; content: prepare but not memorize; conscious, decisive and natural gestures; mindful of energy and personality projection; understand reach and context; exude calm confidence; set up comfortable atmosphere to produce

Unit V

9 Hours

Live Public Speaking: Strategies to gain attention: strong opening; meaningful link backs; interesting filler content; personal connect with the topic and the audience; pauses: when and why; engage and perform: move and gesture; level of force/passion; be memorable: finish strong; avoid putting audience on the defensive: focus on areas of agreement

Reference books:

Gallo, Carmine. *Talk Like TED: The 9 Public-Speaking Secrets of the World's Top Minds*

Carnegie, Dale. *The Art of Public Speaking*

Heinrichs, Jay. *Thank You for Arguing: What Aristotle, Lincoln, and Homer Simpson Can Teach Us About the Art of Persuasion*

GHG-254: Literature in Translation

(Generic Elective)

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Course Description:

The course is designed to introduce and familiarize students with Indian vernacular literary texts with an emphasis on its translations into English. While introducing the literary texts from multiple language backgrounds and emphasizing on its translations, the course takes into consideration the larger process of translation and engages with theoretical formulations to demonstrate the basic aspects of translation. To achieve this the course is divided into five modules including discussion on selected translated poetry, prose (Novel and Short-story), drama and a practical exposure to the act of translation and critical analysis of the process.

Course Objectives:

1. To highlight the historical overview of Translation, its meaning, nature and the process.
2. To introduce various Indian vernacular literary texts translated into English and discuss its significance.
3. To outline the significance of translated poetry, prose and plays
4. To familiarise them with the challenges of genre specific translatability, adaptability and reception.
5. To promote students to translating a literary text of their choice from one's own mother-tongue into English and assess/evaluate its effectiveness and challenges faced while translating

Course Outcomes:

At the end of the course, students will be able to

1. gain a historical overview of Translation, its meaning, nature and the process.
2. acquaint themselves with various Indian vernacular literary texts translated into English and discuss its significance.
3. outline the significance of translated poetry, prose and plays
4. become familiar with the challenges of genre specific translatability, adaptability and reception.
5. translate a literary text of their choice from one's own mother-tongue into English and assess/evaluate its effectiveness and challenges faced while translating into English and assess/evaluate its effectiveness and challenges faced while translating

Unit I

9 Hours

Translation: Historical overview; Translation theory: introduction; Translation: nature and types; notions of translatability; equivalence and problems involving equivalence.

Unit II

8 Hours

Poetry: poetic spirit; apprehension of original poem; language, thought and poetry; interpretation reliability; a critique of select poems

Unit III

8 Hours

Prose: Origins of prose translation; the enlightenment; post war years to the present; working with the author; qualities and making of a literary translator

Unit IV

9 Hours

Drama: Translation studies and drama; target language acceptability; 'Speakability'; adaptation; Critique of Anton Chekhov's *The Cherry Orchard*.

Unit V

8 Hours

Fiction: Characteristics of literary translation and knowledge translation; adequacy of translation: adequate, relevant translation; critique of select translated novels: Bama (b 1958): *Karukku*; Gabriel Garcia Marquez (1927) : *One Hundred Years of Solitude*

Additional Reading/ Reference books:

Munday, Jeremy. *Introducing Translation Studies: theories and applications*. Routledge, London. 2001.

Bassnett, Susan.. *Translation Studies*. Routledge, London. 2002.

Baker, Mona, editor. *Critical Readings in Translation Studies*. Routledge, London and New York. 2010.

Benjamin, Walter.). *The Translator's Task*. Trans. Rendall, Steven. TTR: traduction, terminologie, redaction, vol.10, no. 2, 151-165. 1997.

Bassnett, S. & A. Lefevre, editors. *Translation, History and Culture*. Princeton UP, Princeton. 1992.
 Venuti, Lawrence. *The Translation Studies Reader*. Routledge, London and New York. 2000.
 Eka Kurniawan (b1975): *Man Tiger*
 Jean-Luc Racine (Author), Josiane Racine (Author), John L. Varriano (Author), Will Hobson (Translator) - *Viramma: Life of an Untouchable*

GHG-352: Cultural Studies
(Generic Elective)

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Course Description:

The discipline of Cultural Studies has grown quite massive over a period of time. It has become one of the significant fields of critical inquiry in India and abroad. Keeping in mind it's ever growing significance, this course is designed to familiarize and introduce the discipline of Cultural Studies to the students. The primary objective of this course is to outline what constitutes Cultural Studies and dig deep into making sense of how various concepts (Culture, Democracy, Ethnicity, Nationalism, Caste and so on) act as power structures in the contemporary socio-political society. Besides, the course aims to provide a comprehensive understanding of history and theoretical foundations of Cultural Studies with the help of essential readings.

Course Objectives:

1. Introduce and familiarize students with the discipline of Cultural Studies
2. Locate the significance of cultural studies as an interdisciplinary field
3. Explain the major concepts within Cultural Studies
4. Create an interest among students to relate with and contemplate on cultural phenomena
5. Empower them to Analyse the framework in which Cultural Studies connects with several other areas of studies (Literature, Sociology, History, Anthropology, Political Science and so on)

Course Outcomes:

At the end of the course, student should be able to

1. gain familiarity with the discipline of Cultural Studies
2. appreciate the significance of cultural studies as an interdisciplinary field
3. understand the major concepts within Cultural Studies
4. evince an interest to relate with and contemplate on cultural phenomena
5. analyze the framework in which Cultural Studies connects with several other areas of studies (Literature, Sociology, History, Anthropology, Political Science and so on)

Unit I**8 Hours**

Cultural Studies: An introduction; understanding cultural studies; evolution and culture; Structuralism; Structuralism and its relation with Anthropology, Sociology and Linguistics Marxism, Post-structuralism; basics of Marxism, Marxist literary criticism, historical materialism.

Unit II**9 Hours**

Key Concepts: Subjectivity, Subjectivity and culture, political subjectivity, subjectivity and power; identity and gender, identity negotiation; representation, concept of power and discourse; gender and power; gender and race, gender and caste.

Unit III**8 Hours**

Space: The body, space and time; culture and development; language, ethnicity, race and nation; globalization; consumption.

Unit IV**8 Hours**

Culture Industries, Cultural Forms, the commodity, Media: Television, science, technology and cultural Studies; cyber culture; cultural policy.

Unit V**9 Hours**

Cultural Studies in India: India as an object of study; contemporary caste dynamics; gender in Indian society; class relations, religion.

Essential Reading

Pramod K Nayar: *An Introduction to Cultural Studies*(excerpts)

Chris Barker: *Cultural Studies: Theory and Practice* (excerpts)

Additional Reading/ Reference books:

Chris Barker: *The Sage Dictionary of Cultural Studies*.

Tony Bennett and John Frow: *The Sage Handbook of Cultural Analysis*.

Andrew Milner: *Contemporary Cultural Theory: An Introduction*.

Meenakshi Gigi Durham and Douglas M Kellner, eds.: *Media and Cultural Studies*.

Imre Szeman and Timothy Kaposy: *Cultural Theory: An Anthology*.

Toby Miller, ed.: *A Companion to Cultural Studies*.

Andrew Edgar and Peter Sedgwick: *Key Concepts in Cultural Theory*.

GHG-354: Text and Performance
(Generic Elective)

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Course Description:

This course looks at literary texts and their depiction in performance. An in depth critical analysis of these works will help the students understand the nuances of the dramatic text and performance text in relation to one another as also analyse how the same text gains different dimensions and interpretations when placed in a different medium.

Course Objectives:

1. Familiarise students to the different strategies, techniques and theories of writing and performance in terms of content, context, meaning and intent
2. Provide an understanding of the relevance of the elements of music, dance, language and the body in performance
3. Acquaint students with other forms of performances which involve ritual, spectacle, carnival, discussed within a cultural framework
4. Enable students to understand the text in relation to performance
5. Empower the student to appreciate cultural nuances in dramatic texts and performances

Course Outcomes:

At the end of the course, students will be able to

1. differentiate different strategies, techniques and theories of writing and performance in terms of content, context, meaning and intent
2. understand the relevance of the elements of music, dance, language and the body in performance
3. gain acquaintance with other forms of performances which involve ritual, spectacle, carnival, discussed within a cultural framework
4. understand the text in relation to performance
5. appreciate the cultural nuances in dramatic texts and performances

Unit 1

8 Hours

Introduction: Introduction to theories of performance; historical overview of western and Indian theatre; forms and periods: classical, contemporary, stylized, naturalist.

***Essential Reading**

Selections From

John Gassner and Edward Quinn (Eds.). *The Reader's Encyclopedia of World Drama*.

Ananda Lal. *Theatres of India: A Concise Companion*.

Nandi Bhatia (Ed.). *Modern Indian Theatre: A Reader*.

Julia Hollander. *Indian Folk Theatres*.

Durga Das Mukhopadhyay. *Folk Arts and Social Communication*.

Topics for Student Presentations

- a. Perspectives on theatre and performance
- b. Historical development of theatrical forms
- c. Folk traditions

Unit II

9 Hours

Theatrical Forms and Practices: Types of theatre; semiotics of performative spaces: proscenium ‘in the round’, amphitheatre and open-air; Voice, speech: body movement, gestures and techniques (traditional and contemporary); floor exercises: improvisation / characterization.

*Essential Reading

Selections From

Augusto Boal. *Games for Actors and Non-actors*.

Boal, Augusto. *The Theatre of the Oppressed*.

Dutt, Utpal. *On Theatre*.

Sircar, Badal. *On Theatre*.

Topics for Student Presentations

- a. On the different types of performative space in practice
- b. Poetry reading, elocution, expressive gestures, and choreographed movement

Unit III

8 Hours

Theories of Drama: Theories and demonstrations of acting: Stanislavsky, Brecht- Bharata.

*Essential Reading

Selections From

Roose-Evans, James. *Experimental Theatre: From Stanislavsky to Peter Brook*.

Richmond, Farley P., Darius L. Swann and Phillip B. Zarrilli (Eds.). *Indian Theatre: Traditions of Performance*.

Topics for Student Presentations

- a. Acting short solo/ group performances followed by discussion and analysis with application of theoretical perspectives

Unit IV

9 Hours

Theatrical Production: Direction; production; stage props; costume; lighting; backstage support - recording/archiving performance/case study of production / performance /impact of media on performance processes.

*Essential Reading

Selections From

John Holloway. *Illustrated Theatre Production Guide*.

Augusto Boal. *Games for Actors and Non-actors*.

Topics for Student Presentations

- a. All aspects of production and performance; recording, archiving, interviewing performers and data collection.

Unit V

8 Hours

Street Theatre: Art, politics, economy, and resistance – Marginalization of art forms – Street theatre practice in the West – Street theatre practice in India

***Essential Reading**

Selections From

Cohen-Cruz, Jan (Ed.). *Radical Street Performance: An International Anthology*.

Deshpande, Sudhanva. *Theater of the Streets: The Jana Natya Manch Experience*.

Duncombe, Stephen (Ed.). *Cultural Resistance Reader*.

Eugène van Ervin. *The Playful Revolution: Theatre and Liberation in Asia*.

Topics for Student Presentations

- a. Producing street plays followed by discussion and analysis

Additional Reading/ Reference Books:

Yoshi Oida and Lorna Marshall. *The Invisible Actor*. London: Routledge, 1997.

John Willet. *The Theatre of Bertolt Brecht*. University of California, 1977.

Deeptha Achar and Shivaji K. Panikkar. *Articulating Resistance: Art and Activism*. New Delhi: Tulika Books, 2012.

Rustom Bharucha. *The Politics of Cultural Practice: Thinking through Theatre in an Age of Globalization*. New Delhi: OUP, 2001.

Sudhanva Deshpande, Akshara K.V., and Sameera Iyengar (Eds.). *Our Stage: Pleasures and Perils of Theatre Practice in India*. New Delhi: Tulika Books, 2009.

Aparna Bhargava Dharwadker. *Theatres of Independence: Drama, Theory, and Urban Performance in India since 1947*. New Delhi: OUP, 2008.

Utpal Dutt. *Towards a Revolutionary Theatre*. Calcutta: Seagull Books, 2009.

Sadanand Menon. "Playmaking as a Primary Act of Politics". *Economic and Political Weekly*, Vol. 44, No. 26/27 (Jun. 27 - Jul. 10, 2009), pp. 34-36.

Safdar Hashmi. *The Right to Perform: The Selected Writings of Safdar Hashmi*. New Delhi: Sahmat, 1989.

Bhasa. *Madhyama Vyayoga*.

Sophocles, *Electra*

Gurajada Apparao. *Girls for Sale (Kanyasulkam)*.

Girish Karnad, Badal Sarkar, Vijay Tendulkar. *Three Modern Indian Plays (Tuglaq, Evam Indrajit, Silence! The Court is in Session)*.

GMS 101: Differential Calculus

(Core)

| L | T | P | C |
|---|---|---|---|
| 2 | 2 | 0 | 3 |

Course Description:

This course aims to provide an introduction to Differential calculus for functions of one variable including a study of limits, continuity, derivatives of different classes of functions, maxima and minima, concavity, related rates, and optimization problems.

Course Objectives:

1. Introduce the key concepts of differential calculus
2. Impart the ability to apply the concepts in problem solving contexts
3. Provide factual knowledge including the mathematical notation and terminology used in this course
4. Empower them to describe the fundamental principles including the laws and theorems arising from the concepts covered in this course.
5. Impart specific skills, competencies, and thought processes sufficient to support further study or work in this field or related fields

Course Outcomes:

At the end of the course, students should be able to

1. explain the key concepts of differential calculus
2. demonstrate the ability to apply the concepts in problem solving contexts
3. demonstrate factual knowledge including the mathematical notation and terminology used in this course
4. learn to describe the fundamental principles including the laws and theorems arising from the concepts covered in this course.
5. develop specific skills, competencies, and thought processes sufficient to support further study or work in this field or related fields

Unit I**9 Hours**

Limit and Continuity (ϵ and δ definition), Types of discontinuities, Differentiability of functions, Successive differentiation, Leibnitz's theorem.

Unit II**8 Hours**

Partial differentiation, Euler's theorem on homogeneous functions.

Unit III**9 Hours**

Tangents and normals, Curvature, Asymptotes, Singular points, tracing of curves, Parametric representation of curves and tracing of parametric curves, Polar coordinates and tracing of curves in polar coordinates.

Unit IV**8 Hours**

Rolle's theorem, Mean Value theorems, Taylor's theorem with Lagrange's and Cauchy's forms of remainder

Unit V**8 Hours**

Taylor's series, Maclaurin's series of $\sin x$, $\cos x$, e^x , $\log(1+x)$, $(1+x)^m$, Maxima and Minima, Indeterminate forms.

Text Books

Shanthi Narayan and Dr. M.D. Raisinghania. *Elements of Real Analysis*. S.Chand & Company Ltd., New Delhi.
V.Venkateswara Rao, N Krishna Murthy, B.V.S.S. Sarma and S. AnjaneyaSastry. *A Text Book of B.Sc. Mathematics Volume-II*. S.Chand & Company Ltd., New Delhi.

Howard Anton, IrlBivens and Stephen Davis. *Calculus Single Variable*. John Wiley and Sons, Inc., 2002.

George B. Thomas, Jr. and Ross L. Finney. *Calculus and Analytic Geometry*. Pearson Education, 2007, 9th edition.

GMS-102: Differential Equations

(Core)

| L | T | P | C |
|---|---|---|---|
| 2 | 2 | 0 | 3 |

Course Description:

This course is intended to expose the students to the basic ideas of Differential Equations combined with some ideas from Linear Algebra.

Course Objectives:

1. Explain when certain formulas, equations, techniques can be applied
2. Teach how to combine different techniques
3. Enable them to Identify the correct tools and techniques to deal with unknown situations
4. Engage with Mathematical arguments
5. Empower them to apply simple formulas, equations and techniques in problem solving contexts

Course Outcomes:

At the end of the course, students will be able to

1. explain when certain formulas, equations, techniques can be applied
2. combine different techniques
3. identify the correct tools and techniques to deal with unknown situations
4. engage with Mathematical arguments
5. apply simple formulas, equations and techniques in problem solving contexts

Unit I

9 Hours

First order exact differential equations. Integrating factors, rules to find an integrating factor. First order higher degree equations solvable for x, y, p. Methods for solving higher-order differential equations.

Unit II

9 Hours

Basic theory of linear differential equations, Wronskian, and its properties. Solving a differential equation by reducing its order. Linear homogeneous equations with constant coefficients, Linear nonhomogeneous equations, The method of variation of parameters, The Cauchy-Euler equation, Simultaneous differential equations, Total differential equations.

Unit III

8 Hours

Order and degree of partial differential equations, Concept of linear and non-linear partial differential equations, Formation of first order partial differential equations

Unit IV

8 Hours

Linear partial differential equation of first order, Lagrange’s method, Charpit’s method.

Unit V

8 Hours

Classification of second order partial differential equations into elliptic, parabolic and hyperbolic through illustrations only.

Text Books

N.Krishna Murthy & others “A text book of Mathematics for BA/B.Sc. Vol. 1 S. Chand & Company, New Delhi.

Shepley L. Ross, *Differential Equations*, 3rd Ed., John Wiley and Sons, 1984

Sneddon, *Elements of Partial Differential Equations*, McGraw-Hill, International Edition, 1967.

**GMS-103: Descriptive Statistics and Probability Theory
(Core)**

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|----------|----------|----------|----------|
| L | T | P | C |
| 2 | 2 | 0 | 3 |

Course Description:

The course aims to introduce the fundamental concepts of descriptive statistics and probability theory, such as measures of dispersion, and probability theorems, and impart skills for students to apply the concepts while solving related problems.

Course Objectives:

1. To explain how to tabulate statistical information given in descriptive form and to use graphical techniques to interpret
2. To enable students to compute various measures of central tendency, dispersion, skewness and kurtosis.
3. To empower students to find the probabilities of events

4. To improve their analytical skills while analysing data pertaining to discrete and continuous variables and to interpret the results
5. To relate the concepts to real life situations

Course Outcomes:

At the end of the course the student will be able to

1. tabulate statistical information given in descriptive form and to use graphical techniques to interpret
2. compute various measures of central tendency, dispersion, skewness and kurtosis.
3. find the probabilities of events
4. analyze data pertaining to discrete and continuous variables and to interpret the results
5. relate the concepts to real life situations

Unit I

9 Hours

Introduction to Statistics: Concepts of Primary and Secondary data. Methods of collection and editing of primary data, Secondary data. Designing a questionnaire and a schedule. Measures of Central Tendency - Mean, Median, Mode, Geometric Mean and Harmonic Mean.

Unit II

8 Hours

Measures of dispersion: Range, Quartile Deviation, Mean Deviation and Standard Deviation. Descriptive Statistics -Central and Non-Central moments and their interrelationship. Sheppard's correction for moments. Skewness and kurtosis.

Unit III

9 Hours

Introduction to Probability: Basic Concepts of Probability, random experiments, trial, outcome, sample space, event, mutually exclusive and exhaustive events, equally likely and favorable outcomes. Mathematical, Statistical, axiomatic definitions of probability. Conditional Probability and independence of events.

Unit IV

8 Hours

Probability theorems: Addition and multiplication theorems of probability for two and for n events. Boole's inequality and Bayee's theorems and problems based on Bayee's theorem.

Unit V

8 Hours

Random variable: Definition of random variable, discrete and continuous random variables, functions of random variable. Probability mass function. Probability density function, Distribution function and its properties. Bivariate random variable - meaning, joint, marginal and conditional Distributions, independence of random variables.

Text Books

V. K. Kapoor and S. C. Gupta. *Fundamentals of Mathematical Statistics*. Sultan Chand & Sons, New Delhi.

BA/BSc I year statistics - descriptive statistics, probability distribution - Telugu Academy – Dr M. Jaganmohan Rao, Dr N. Srinivasa Rao, Dr P.Tirupathi Rao, Smt. D. Vijayalakshmi K.V.S. Sarma. *Statistics Made Simple: Do it yourself on PC*. PHI.

GMS-104: Mathematical Expectation and Probability Distributions (Core)

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|----------|----------|----------|----------|
| L | T | P | C |
| 2 | 2 | 0 | 3 |

Course Description:

The course explores the basic concepts of modern probability theory and its applications for decision-making in economics, business, and other fields of social sciences. Our everyday lives, as well as economic and business activities, are full of uncertainties and probability and distribution theory offer useful techniques for quantifying these uncertainties

Course Objectives:

1. Providing students with a formal treatment of probability theory.
2. Equipping students with essential tools for statistical analyses at the graduate level.
3. Fostering understanding through real-world statistical applications.
4. Enabling students to apply modern probability theory to everyday lives
5. Encouraging them to see the applications of the concepts in other areas of study

Course Outcomes:

At the end of the course the student will be able to

1. appreciate a formal treatment of probability theory.
2. acquire essential tools for statistical analyses at the graduate level.
3. gain understanding through real-world statistical applications.
4. apply modern probability theory to everyday lives
5. observe the applications of the concepts in other areas of study

Unit I

8 Hours

Mathematical expectation : Mathematical expectation(ME) of a random variable and function of a random variable. Moments and covariance using mathematical expectation with examples. Addition and Multiplication theorems on expectation. Definitions of M.G.F, C.G.F, P.G.F, C.F its properties. Chebyshev and Cauchy - Schwartz inequalities.

Unit II**8 Hours**

Discrete Distributions: Binomial and Poisson distributions, their definitions, 1st to 4th central moments, M.G.F, C.F, C.G.F, P.G.F, mean, variance, additive property if exists. Poisson approximation to Binomial distribution.

Unit III**9 Hours**

Negative Binomial, geometric, hyper geometric distributions - Definitions, means, variances, M.G.F, C.F, C.G.F, P.G.F, reproductive property if exists. Binomial approximation to Hyper Geometric Distribution, Poisson approximation to Negative binomial distribution.

Unit IV**8 Hours**

Continuous Distributions : Rectangular, Exponential, Gamma, Beta Distributions of two kinds. Other properties such as mean , variance, M.G.F, C.G.F, C.F, reproductive property.

Unit V**9 Hours**

Normal Distribution: Definition, Importance, Properties, M.G.F, additive properties, Interrelation between Normal and Binomial, Normal &Poisson distribution. Cauchy Distribution .

Text books

V.K.Kapoor and S.C.Gupta: Fundamentals of Mathematical Statistics, Sultan Chand & Sons, New Delhi.

BA/BSc I year statistics - descriptive statistics, probability distribution - Telugu Academy - DrM.Jaganmohan Rao ,DrN.Srinivasa Rao, DrP.Tirupathi Rao, Smt.D.Vijayalakshmi

Reference Books:

WillamFeller. *Introduction to Probability theory and its applications*. Volume –I, Wiley
Modern Mathematical Statistics with Applications Jay L. Devore, Kenneth N. Berk Springer Second edition.

Goon AM, Gupta MK, Das Gupta B. *Fundamentals of Statistics , Vol-I*. The World Press Pvt.Ltd., Kolkata.

Hoel P.G. *Introduction to Mathematical Statistics*, Asia Publishing house.

Sanjay Arora and Bansilal. *New Mathematical Statistics*. Satya Prakashan , New Delhi.

Hogg.Tanis.Rao. *Probability and Statistical Inference*. 7th edition. Pearson.

K.V.S. Sarma. *Statistics Made Simple: do it yourself on PC*. PHI

Gerald Keller. *Applied Statistics with Microsoft excel*. Duxbury, Thomson Learning.

Levine, Stephen, Krehbiel, Berenson. *Statistics for Managers using Microsoft Excel 4th edition*. Pearson Publication.

GMS-105: Introduction to Economics**(Core)**

| | | | |
|----------|----------|----------|----------|
| L | T | P | C |
| 3 | 0 | 0 | 3 |

This course builds upon the key concepts of Macroeconomics, while providing adequate fundamental knowledge about economic issues, systems, basic competitive models, role of markets, theories of demand and supply, consumer choice theory, household decisions, market structures etc.

Course Objectives:

1. To introduce the subject matter of Economics, constituting its definition, key principles, and the scope of Economics.
2. To learn the key economic issues, different economic systems, and basic competitive models.
3. To learn the role of markets and competition, theories of demand and supply, and concepts of elasticity.
4. To acquaint students with various concepts of consumer choice theory, household decisions, and participation in various factor markets.
5. To learn the concept of firm, various market structures, short run costs and profit maximizing behavior of firms.
6. To impart the overall knowledge of Macroeconomics, concepts of national income and approaches to calculate national income.

Course Outcomes:

At the end of the course, the students should be able to

1. understand the subject matter of Economics, constituting its definition, key principles, and the scope of Economics.
2. demonstrate knowledge of the key economic issues, different economic systems, and basic competitive models.
3. explain the role of markets and competition, theories of demand and supply, and concepts of elasticity.
4. understand various concepts of consumer choice theory, household decisions, and participation in various factor markets.
5. appreciate the concept of firm, various market structures, short run costs and profit maximizing behavior of firms.
6. gain an overall knowledge of Macroeconomics, concepts of national income and approaches to calculate national income.

Unit I**8 Hours**

Exploring the Subject Matter of Economics: Why study economics? – scope of economics – the economic problem: scarcity and choice – the question of what to produce, how to produce and how to distribute output – science of economics – the basic competitive model – prices, property rights and profits: incentives and information, rationing – opportunity sets – economic systems.

Unit II**9 Hours**

Role of Markets, their Functioning and Welfare: Markets and competition – determinants of individual demand/supply, demand/supply schedule and demand/supply curve, market versus individual demand/supply, shifts in the demand/supply curve – demand and supply together – how prices allocate resources – elasticity and its application – controls on prices – taxes and the costs of taxation – consumer, producers and the efficiency of the markets.

Unit III**8 Hours**

The Households: The consumption decisions–budget constraints, consumption and income/price changes, demand for all other goods and price changes – description of preferences – the investment decision – investment alternatives for a household – desirable attributes of investments – labor supply and savings decision – choice between leisure and consumption – labour force participation – tax policy and labour supply -human capital and education – budget constraints and savings – savings and interest rate, other factors affecting savings.

Unit IV**9 Hours**

The Firm and Perfect Market Structure: Financing, controlling and managing firms – the firm' s legal form, corporate finance – why corporations care about financial structure – takeover and the market for managers – making decisions – centralization and decentralization – the boundaries of the firm. behaviour of profit maximizing firms and the production process – short run costs and output decisions.

Unit V**8 Hours**

Introduction to Macroeconomics and National Income Accounting: The roots of macroeconomics – concerns over macroeconomic – the role of government in the macro economy–the components of the macro economy – the methodology of macroeconomics – concepts of national income – approaches to calculating national income –nominal and real income – issues on measurement of national income

Reference books:

1. Karl E. Case and Ray C. Fair (2002), Principles of Economics, 6th Edition, Pearson Education Asia Low Price Edition.
2. N. Gregory Mankiw, (2002), Principles of Economics, Thomson.
3. J.E. Stiglitz, and C.E. Walsh (2002), Principles of Economics, 3rd Edition, W.W. Norton & Company, New York.
4. R. Stone and G. Stone (1962), National Income and Expenditure, Bowes and Bowes London.
5. Paul Hayne (1998), Economic Way of Thinking, Prentice Hall

**GMS-106: Principles of Microeconomics
(Core)**

| L | T | P | C |
|----------|----------|----------|----------|
| 3 | 0 | 0 | 3 |

The course aims to provide a comprehensive introduction to the basic concepts of Microeconomics including cardinal and ordinal approaches of consumer theory, and demand and supply theory, measures of production costs and revenue, firm equilibrium, market structures and firm behaviours, and changes in consumer and producer surplus.

Course Objectives:

1. To provide an understanding of the nature, importance, scope, and limitations of Microeconomics; the fundamental problems of economic systems, and key economic principles of microeconomics.
2. To help students apply cardinal and ordinal approaches of consumer choice theory, and demand and supply theories using graphs and equations.
3. To enable students to analyze various measures of production costs and revenue, and firm equilibrium conditions.
4. To impart knowledge about various types of market structures, firm behaviours under different market structures, and changes in consumer and producer surplus
5. To empower students to relate the concepts to real life situations

Course Outcomes:

At the end of the course students should be able to

1. understand the nature, importance, scope, and limitations of Microeconomics; the fundamental problems of economic systems, and key economic principles of microeconomics.

2. apply cardinal and ordinal approaches of consumer choice theory, and demand and supply theories using graphs and equations.
3. analyze various measures of production costs and revenue, and firm equilibrium conditions.
4. learn about various types of market structures, firm behaviour under different market structures, and changes in consumer and producer surplus
5. relate the concepts to real life situations

Unit I

8 Hours

Introduction: Nature and scope of micro economics – Fundamental Problems of Economic Systems: scarcity and choice – the question of what to produce, how to produce and how to distribute output - Definition: Wealth, Welfare, Scarcity- Limitations and importance of micro economics - Micro Static and Micro Dynamic Economics.

Unit II

9 Hours

Consumer Behavior-Cardinal Approach: Marshall's utility analysis – The law of diminishing marginal utility – The law of equi-marginal utility – Consumer Behavior-Ordinal Approach: Hicksian Approach - Indifference curve analysis – Properties of Indifference curves – Price line or budget line – Consumers equilibrium – Samuelson's Revealed Preference Theory

Unit III

8 Hours

Law of supply and demand: Types of demand – Determinants of demand – Law of supply – Determinants of supply – Law of Demand – Elasticity of demand – Types of Elasticity of demand; Measurement of Elasticity of demand – law of variable proportion – returns to scale – economies of scale – Iso quant approach and producer's equilibrium.

Unit IV

9 Hours

Theory of Cost and Revenue: What are costs?: Production and costs – various measures of cost – cost curves and their shapes – the relationship between short run and long run average total cost – elasticity of cost – What are revenues – average and marginal revenue – relation between AR and MR Curves – AR, MR and elasticity – importance of revenue curves – interactions of cost and revenues conditions of equilibrium of a firm.

Unit V

8 Hours

Market Structure and Equilibrium: Market forms – perfect and imperfect forms – equilibrium of a firm under perfect competition – monopoly – monopolistic competition – duopoly and oligopoly – importance of time element in price theory – price discrimination and measure of monopoly power – control and regulation of monopoly – collusive price leadership – kinked demand curve-taxation and equilibrium of a firm-comparison of various markets.

Text Book

Reference books:

1. A. Koutsoyannis. (1979), Microeconomics A Modern Approach, East West Press, New Delhi
2. H.R. Varian (1993), Intermediate Microeconomics, W.W. Norton, New York
3. R.G. Lipsey and K.A. Chrystal - "Economics", Oxford University Press, 10/e, 2004.
4. P.A. Samuelson & W.D. Nordhaus-"Economics", Tata Mc.Graw Hill, 18/e, 2005.
5. N.Gregory Mankiw-"Principles of Economics", Thompson 2015 .
6. H.L.Ahuja-"Advanced Economic Theory" S. Chand.
7. M.L. Seth-"Micro Economics", Laxmi Narayana Agarwal, 2015.
8. Bilas, A.-"Micro Economic Theory", International Student Edition, Mc. Graw Hill, 1971.
9. Hirschet – “Managerial Economics” 12th Edition. Cengage Learning, 2009

GMS-121: Descriptive Statistics and Probability Theory Lab

| | | | |
|----------|----------|----------|----------|
| L | T | P | C |
| 0 | 0 | 2 | 1 |

Course Description:

The course aims to introduce the fundamental concepts of descriptive statistics and probability theory, such as measures of dispersion, and probability theorems, and impart skills for students to apply the concepts while solving related problems.

Course Objectives:

1. To explain how to tabulate statistical information given in descriptive form and to use graphical techniques to interpret
2. To enable students to compute various measures of central tendency, dispersion, skewness and kurtosis.
3. To empower students to find the probabilities of events
4. To improve their analytical skills while analysing data pertaining to discrete and continuous variables and to interpret the results
5. To relate the concepts to real life situations

Course Outcomes:

At the end of the course the student will be able to

1. tabulate statistical information given in descriptive form and to use graphical techniques to interpret
2. compute various measures of central tendency, dispersion, skewness and kurtosis.
3. find the probabilities of events
4. analyze data pertaining to discrete and continuous variables and to interpret the results
5. relate the concepts to real life situations

Syllabus of the Lab:

1. Graphical presentation of data (Histogram, frequency polygon, Ogives).
2. Graphical presentation of data (Bar diagram, Histogram, frequency polygon, Ogives) using MS Excel
3. Diagrammatic presentation of data (Bar and Pie).
4. Diagrammatic presentation of data (Bar and Pie) using MS Excel
5. Computation of Mean, Standard deviation, Coefficient of Variation
6. Computation of Mean, Standard deviation, Coefficient of Variation using MS Excel
7. Computation of non-central and central moments – Sheppard’s corrections for grouped data.
8. Computation of coefficients of Skewness (β_1) and Kurtosis (β_2) – Karl Pearson’s and Bowley’s s coefficient of skewnes.
9. Computation of measures of central tendency, dispersion and coefficients of Skewness, Kurtosis using MS Excel.
10. Problems on Probability theory.

GMS-122: Probability Distributions Lab

| L | T | P | C |
|---|---|---|---|
| 0 | 0 | 2 | 1 |

Course Description:

The course aims to introduce the fundamental concepts of descriptive statistics and probability theory, such as measures of dispersion, and probability theorems, and impart skills for students to apply the concepts while solving related problems.

Course Objectives:

1. To explain how to tabulate statistical information given in descriptive form and to use graphical techniques to interpret

2. To enable students to compute various measures of central tendency, dispersion, skewness and kurtosis.
3. To empower students to find the probabilities of events
4. To improve their analytical skills while analysing data pertaining to discrete and continuous variables and to interpret the results
5. To relate the concepts to real life situations

Course Outcomes:

At the end of the course the student will be able to

1. tabulate statistical information given in descriptive form and to use graphical techniques to interpret
2. compute various measures of central tendency, dispersion, skewness and kurtosis.
3. find the probabilities of events
4. analyze data pertaining to discrete and continuous variables and to interpret the results
5. relate the concepts to real life situations

Syllabus of the Lab:

1. Fitting of Binomial distribution – Direct method.
2. Fitting of Binomial distribution – Direct method using MS Excel.
3. Fitting of binomial distribution – Recurrence relation Method.
4. Fitting of Poisson distribution – Direct method.
5. Fitting of Poisson distribution – Direct method using MS Excel.
6. Fitting of Negative Binomial Distribution- Direct method.
7. Fitting of Negative Binomial Distribution- Recurrence Relation method.
8. Fitting of Poisson distribution - Recurrence relation Method.
9. Fitting of Normal distribution – Areas method.
10. Fitting of Normal distribution – Ordinates method.

GMS-132: MS EXCEL (Ability Enhancement Course)

| | | | |
|----------|----------|----------|----------|
| L | T | P | C |
| 1 | 0 | 2 | 2 |

Course Description:

This comprehensive course covers beginners level lessons in Excel and focuses on assisting you to become an Excel Ninja. Take your skills, knowledge and excellence from basic to the advanced level through discovering useful tips, tricks, shortcuts, functions and formulas and confidently create spreadsheets and workbooks using Microsoft Office Excel.

Course Objectives:

1. Identify the different components of the Excel worksheet.
2. Differentiate between an Excel workbook & worksheet.
3. Use the Office Assistant · Open an existing workbook and create a new workbook ·
4. Enter text and formulas in to an Excel spreadsheet
5. Enhance alpha and numeric date in an Excel

Course Outcomes:

1. Create a spreadsheet to tabulate and record numeric values
2. Change the appearance of an Excel spreadsheet
3. Use the print function to create a printable copy of data stored on an Excel spreadsheet.
4. Set up the chart function of Excel to represent numeric data in multiple formats.
5. Differentiate between formulas and functions in Excel.

Unit I

9 Hours

MS-Excel: features of Ms-Excel, Parts of MS-Excel window, entering and editing data in worksheet, number formatting in excel, different cell references, how to enter and edit formula in excel, auto fill and custom fill, printing options.

Unit II

8 Hours

Formatting options: Formatting data and cells, formatting rows and columns, working with formulas and functions, different types of Table related functions

Unit III

8 Hours

Different types of charts, Parts of chart, chart creation using wizard, chart operations, data maps, graphs, adding images and graphics, Templates.

Unit IV

8 Hours

Create, manage, and format pivot tables and pivot charts, data sorting, filtering, validation, Consolidation, Grouping, what-if analysis,

Unit V

9 Hours

Worksheet and workbook protection, password protecting excel files. Macro: Meaning and advantages of Macros, creation, editing and deletion of macros.

Text books

ReemaThareja, *Fundamentals of Computers*, Oxford University Press, India 2. V.Raja Raman, *Fundamentals of Computers*, Prentice Hall of India. 3. John Walkenbach, Herb Tyson, Michael R.Groh and FaitheWempen, *Microsoft Office 2010 Bible* Wiley Publishers
Peter Norton: *Peter Norton's Introduction to Computers*

Reference books:

V. Raja Raman: *Fundamentals of Computers*
Microsoft Office Excel 2003 and 2007- step by step: Frye, PHI
Fundamentals of Information Technology: Deepak Bharihanke, Excel

GMS-201: Real Analysis (Core)

| L | T | P | C |
|---|---|---|---|
| 2 | 2 | 0 | 3 |

Course Description:

The course aims to provide an introduction to the field of real numbers. Basic topological properties, and related theorems of differentiability of real functions will be introduced.

Course Objectives:

1. To provide knowledge of basic properties of the field of real numbers
2. To enable students to understand and apply the basic topological properties of the real numbers
3. To throw light on the differentiability of real functions and related theorems
4. To discuss the theoretical contributions of Bolzano-Weierstrass, Cauchy, and Leibnitz through their theorems and tests
5. To provide students with the skills to apply the knowledge to real life problems

Course Objectives:

At the end of the course, students should be able to

1. gain knowledge of basic properties of the field of real numbers
2. understand and apply the basic topological properties of the real numbers
3. learn the differentiability of real functions and related theorems
4. appreciate the theoretical contributions of Bolzano-Weierstrass, Cauchy, and Leibnitz

- through their theorems and tests
5. apply the knowledge to real life problems

Unit I

8 Hours

Finite and infinite sets, examples of countable and uncountable sets, Real line, bounded sets, suprema and infima, completeness property of \mathbb{R} , Archimedean property of \mathbb{R} , intervals. Concept of cluster points and statement of Bolzano-Weierstrass theorem.

Unit II

8 Hours

Real Sequence, Bounded sequence, Cauchy convergence criterion for sequences. Cauchy's theorem on limits, order preservation and squeeze theorem, monotone sequences and their convergence (monotone convergence theorem without proof).

Unit III

8 Hours

Infinite series. Cauchy convergence criterion for series, positive term series, geometric series, comparison test, convergence of p-series

Unit IV

8 Hours

Root test, Ratio test, alternating series, Leibnitz's test (Tests of Convergence without proof). Definition and examples of absolute and conditional convergence.

Unit V

8 Hours

Sequences and series of functions, Pointwise and uniform convergence. M -test, Statements of the results about uniform convergence and integrability and differentiability of functions, Power series and radius of convergence

Text Books

- T. M. Apostol, *Calculus* (Vol. I), John Wiley and Sons (Asia) P. Ltd., 2002.
 R.G. Bartle and D. R Sherbert, *Introduction to Real Analysis*, John Wiley and Sons (Asia) P. Ltd., 2000.
 E. Fischer, *Intermediate Real Analysis*, Springer Verlag, 1983.
 K.A. Ross, *Elementary Analysis- The Theory of Calculus Series-* Undergraduate Texts in Mathematics, Springer Verlag, 2003.

**GMS-202: Algorithms and Programming Languages
(Core)**

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| L | T | P | C |
| 2 | 0 | 2 | 3 |

Course Description:

The aim of this course is to inform the students about the general structure of programming, function, conditional statements, iteration, text files, user defined data type, pointers, dynamic data structures.

Course Objectives:

1. Explain the general structure of programming
2. Discuss related concepts such as conditional statements, iteration, user defined data types, pointers etc
3. Provide knowledge about how to draw a flowchart and algorithm for programming.
4. Provide knowledge about the main topics of programming.
5. Impart skills of choosing the most appropriate method for solving a problem.

Course Outcomes:

At the end of the course the students should be able to

1. Explain the general structure of programming
2. Understand concepts such as conditional statements, iteration, user defined data types, pointers etc
3. Demonstrate an ability to create a flowchart and algorithm for programming.
4. Understand the main topics of programming.
5. Demonstrate skills of choosing the most appropriate method for solving a problem.

Unit I

8 Hours

Introduction to Computers – Programs and programming, programming languages, compiler, interpreter, loader and linker, classification of programming languages, structured programming concept, algorithms and flowcharts.

Unit II

9 Hours

Introduction to C Language –Overview of C, program structure, Identifiers, Types, Variables, Constants, Input / Output, Operators (Arithmetic, relational, logical, bitwise etc.), Expressions, Precedence and Associativity, Expression Evaluation, Type conversions.

Unit III

8 Hours

Decision making & branching: IF statement, IF-ELSE statement, Nested IF statement, ELSE-IF ladder, switch statement.

Repetition statements (loops)-while, for, do-while statements, nested loops, loop control statements–break, continue, goto.

Unit IV**9 Hours**

Functions- Concept of function, using functions, call by value and call by reference mechanism, passing arrays to functions, scope and extent, storage classes, recursion.

Arrays – Concepts, one dimensional array, two – dimensional arrays.

Unit V**8 Hours**

Strings – Concepts, string manipulation functions.

Structure and Union: Features of structure, Declaration, initialization of structure, structures containing arrays, Array of structure, declaring union and its members, accessing and initializing members of a union, structure versus union.

Text books

Programming in ANSI C by E. Balagurusamy, Tata McGraw Hill Publishing Company Ltd, 4th edition, 2004.

Computer Science: A Structured Programming Approach Using C, B. A. Forouzan and R. F. Gilberg, Third Edition, Cengage Learning.

Reference books:

Programming with C, K.R.Venugopal, Sudeep.R Prasad Tata McGraw Hill Publishing Company Ltd, 7 th edition, 2010.

Let Us C by Yaswant P. Kanetkar, BPB Publications, Paper back 13th edition, 2013.

The C Programming Language by Brian W. Kernighan, Dennis M. Ritchie, PHI Ltd, 2 nd edition.

GMS-203: Statistical Methods**(Core)**

| L | T | P | C |
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Course Description:

The objective of this course is to provide an understanding of statistical concepts to include measurements of location and dispersion, probability, probability distributions, sampling, estimation, hypothesis testing, regression, and correlation analysis, multiple regression and business/economic forecasting.

Course Objectives:

1. Provide the knowledge to calculate measures of location and measures of dispersion --

- grouped and ungrouped data cases.
2. Provide the knowledge and skills to apply measures of location and measures of dispersion -- grouped and ungrouped data cases.
 3. Explain discrete and continuous probability distributions
 4. Enable students to apply discrete and continuous probability distributions to various business problems.
 5. Provide knowledge about non-parametric test such as the Chi-Square test for Independence

Course Outcomes:

At the end of the course, students should be able to

1. calculate measures of location and measures of dispersion -- grouped and ungrouped data cases.
2. apply measures of location and measures of dispersion -- grouped and ungrouped data cases.
3. understand discrete and continuous probability distributions
4. apply discrete and continuous probability distributions to various business problems.
5. understand and apply non-parametric test such as the Chi-Square test for Independence

Unit I

8 Hours

Correlation: Definition, scatter diagram, its coefficient and its properties. scatter diagram, computation of correlation coefficient for ungrouped data. spearman's rank correlation coefficient, properties of spearman's correlation coefficients and problem.

Unit II

8 Hours

Regression: simple linear regression, properties of regression coefficients. Regression lines, Concept of Correlation ratio, partial and multiple correlation coefficients, correlation verses regression and their problems.

Unit III

8 Hours

Curve fitting: Method of least square - Fitting of linear, quadratic, Exponential and power curves and their problems.

Unit IV

8 Hours

Attributes: Introduction, Nature, and consistency and mention its conditions. Independence and association of attributes, co-efficient of association, coefficients of contingency and their problems.

Unit V

8 Hours

Exact sampling distributions: Concept of population, Parameter, random sample, statistic, sampling distribution, standard error. Statement and Properties of χ^2 , t, F distributions and their inter relationships.

Text books

V. K. Kapoor and S.C.Gupta: Fundamentals of Mathematical Statistics, Sultan Cahnd& Sons, New Delhi
 BA/BSc II year statistics - statistical methods and inference - Telugu Academy by A. Mohanrao, N.Srinivasa Rao, DrR.Sudhakar Reddy, Dr T.C. Ravichandra Kum.
 K.V.S. Sarma: Statistics Made Simple: Do it yourself on PC. PHI.

Reference books:

Goon.A.M, Gupta.M.K, Das Gupta B: Outlines of Statistics, Vol-II, the World Press Pvt.Ltd.,Kolkata
 Hoel P.G.: Introduction to matechemical statistics, Asia Publishing house.
 Sanjay Arora and Bansi Lai: New mathematical Statistisc Satya Prakashan, New Delhi.

GMS-204: Statistical Inference
 (Core)

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|----------|----------|----------|----------|
| L | T | P | C |
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Course Description:

This course aims at giving the foundation knowledge of Probability and Statistical Inference. In particular, it gives details of theory of Estimation and testing of hypothesis. Both theoretical aspect will be discussed and practical problems will be dealt with in great detail.

Course Objectives:

1. Provide the knowledge about the concept of estimation of parameters
2. Provide the knowledge and skills to calculate the problems related to point estimation and interval estimation
3. Explain the concepts of Testing of Hypotheses, (Large Sample Tests small sample test)
4. Enable students to apply the concepts of Testing of Hypotheses, (Large Sample Tests small sample test)
5. Provide overall knowledge about statistical inference

Course Outcomes:

At the end of the course, students should be able to

1. Provide the knowledge about the concept of estimation of parameters
2. Provide the knowledge and skills to calculate the problems related to point estimation and interval estimation
3. Explain the concepts of Testing of Hypotheses, (Large Sample Tests small sample test)
4. Enable students to apply the concepts of Testing of Hypotheses, (Large Sample Tests small

- sample test)
5. Provide overall knowledge about statistical inference

Unit I

8 Hours

Theory of estimation: Estimation of a parameter, criteria of a good estimator –unbiasedness, consistency, efficiency, sufficiency and. Statement of Neyman's factorization theorem. Estimation of parameters by the methods of moments and maximum likelihood (M.L), properties of MLE's. Binomial, Poisson & Normal Population parameters estimated by ML method. Confidence intervals of the parameters of normal population.

Unit II

8 Hours

Concepts of Statistical hypothesis: Null and alternative hypothesis, critical region, two types of errors, level of significance, power of a test. 1 tailed, 2 tailed tests, Neyman - Pearson's lemma. Examples of Binomial. Poisson, Normal distributions.

Unit III

9 Hours

Large Sample Tests : Large sample tests for single mean, two means, Single proportion, Two proportions, Standard Deviation of single and double samples and Fisher's Z transformation

Unit IV

8 Hours

Small sample tests: Tests of significance based on χ^2 , t and F. χ^2 -test for test for independence of attributes, t-test for single, double and paired tests, Variance Ratio Test(F-test).

Unit V

9 Hours

Non-parametric tests - Advantages and Disadvantages. Two sample run test, Two sample Median tests and Two sample sign tests.

Text books

BA/BSc II year statistics - statistical methods and inference - Telugu Academy by A.Mohanrao, N.Srinivasa Rao, DrR.Sudhakar Reddy, Dr T.C. Ravichandra Kumar.
K.V.S. Sarma: Statistics Made Simple: Do it yourself on PC. PHI.

Reference books:

V.K.Kapoor and S.C.Gupta : Fundamentals of Applied Statistics. Sultan Chand
Parimal Mukhopadhyay : Applied Statistics . New Central Book agency,
Daroga Singh and Chowdhary: Theory and Analysis of Sample survey designs., Wiley Eastern.
M.R.Saluja : Indian Official Statistics. ISI publications.
B.L.Agarwal: Basic Statistics.New Age publications.
S.P.Gupta : Statistical Methods. Sultan Chand and Sons.
Pratirupa Sidhanthamulu - Telugu Academy.

GMS-205: Principles of Macroeconomics
(Core)

| L | T | P | C |
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Course Description:

Given the importance of economic ideas, concepts, and principles to understand the complex socio-economic problems around us and to find solutions which are economically viable and socially acceptable, it is pertinent to learn the foundational knowledge of macroeconomics as a sub-field of economics. In this course, the students will be introduced to the key concepts, principles, and theories of Macroeconomics, which will help the students to build their foundational knowledge about the subject. The topics range from definition, importance, and limitations of Macroeconomics to key topics, including national income and national output, theories of employment, functioning and theories of money, and introduction to fiscal and monetary policies among others.

Course Objectives:

1. To introduce the definition, importance, and key components of Macroeconomics
2. To provide knowledge about the key concepts and theories of national income and national output.
3. To acquaint the students with foundational knowledge/theories of employment, income, money, and interest rates.
4. To impart the overall knowledge about the interrelationships of key components of Macroeconomics under a closed economy, and theories thereof (IS-LM model)
5. To enable the students to apply the concepts and theories to real time phenomena

Course Outcomes:

At the end of the course the students should be able to

1. understand the definition, importance, and key components of Macroeconomics
2. understand the key concepts and theories of national income and national output.
3. get acquainted with foundational knowledge/theories of employment, income, money, and interest rates.
4. gain overall knowledge about the interrelationships of key components of Macroeconomics

- under a closed economy, and theories thereof (IS-LM model)
5. apply the concepts and theories to real time phenomena

Unit I

8 Hours

Introduction to Macro Economics: Meaning and definitions of macroeconomics – Importance of macroeconomics – Differences between micro and macroeconomics – Macroeconomic paradoxes – Limitations

Unit II

9 Hours

National Income: Meaning and definitions of National Income – Marshall, Pigou, Fisher Concepts of National Income – GNP, NNP, GDP & NDP, PI, DI, PCI, Real National Income
Measurement of National Income -Product method, Income method, Expenditure method –Circular flow of national income

Unit III

8 Hours

Theories of Income and Employment: Classical Theory of employment – Say’s law of markets
Keynes theory of output and employment – Inflation: concepts and consequences – The Phillips curve – the natural rate of unemployment – factors affecting natural rate of unemployment – the adaptive expectation and long-run Phillips curve – the concept of rational expectations

Unit IV

9 Hours

Money and value of money: Meaning and Definition of money – Functions of money – Gresham’s Law – RBI Classification of money - M1, M2, M3 and M4 – Theories of money, Fisher’s Quantity theory of money – Cambridge approach (Marshall, Pigou and Keynes).

Unit V

8 Hours

Closed economy: The goods market and derivation of IS curve – real influences and Shift in IS schedule – the money market and derivation of LM curve – the shift in LM curve – determination of equilibrium income and interest rates – the relative efficacy of fiscal and monetary policy

Text Book

Telugu Academy Publications

Reference books:

1. Dillard. D: The Economics of John Maynard Keynes, Cross by Lockwood and sons, London,
2. M.C Vaish: Macro Economic theory
3. S. B Gupths: Monetary economics, S. Chand and CO Delhi

4. Mithani D.M: Macro Economic Analysis and policy Oxford and JBH New Delhi
 5. M N Mishra & S B Mishra: "Insurance Principles & Practice" S Chnad 2007.
 6. Lewis, M.K and P.D Mizan: Monetary Economics, Oxford University press, New Delhi
Central Statistical Organisations: "National Accounts Statistics".
 7. M.L. Seth: "Macro Economics", Lakshmi Narayan Agarwal, 2006.
 8. K.P.M. Sundaram: "Money, banking & International Trade", Sultan Chand, 2006.
- AUSDE: Study Material
9. R T Froyen (2008), Macroeconomics, Theory and policies, Prentice Hall
 10. N. Gregory Mankiw (2002) Macroeconomics, 5th or later edition, Worth Publishers.
 11. Rudiger Dornbusch, Stanley Fischer and Richard Startz, (2007) Macroeconomics, 7th or later edition, McGraw Hill.
 12. Jones, Charles I. (1998), Introduction to Economic Growth, W.W. Norton & Company, Chapters 1, 2, 8.

GMS-208: Vector Calculus (Core)

| L | T | P | C |
|---|---|---|---|
| 2 | 2 | 0 | 3 |

Course Description:

The course aims to provide an introduction to Vector Calculus. Vector calculus deals with differentiation and integration of vector fields. The term "vector calculus" is sometimes used as a synonym for the broader subject of multivariable calculus, which spans vector calculus as well as partial differentiation and multiple integration. Vector calculus plays an important role in differential geometry and in the study of partial differential equations. It is used extensively in physics and engineering, especially in the description of electromagnetic fields, gravitational fields, and fluid flow.

Course Objectives:

1. Provide knowledge of the basic concepts of differential calculus
2. Explain limits of vector point functions
3. Explain vector differentiation
4. Enable students to understand vector identities
5. Explain theoretical background of concepts of vector calculus and its applications

Course Outcomes:

At the end of the course students should be able to

1. Learn the basic concepts of differential calculus

2. understand limits of vector point functions
3. understand vector differentiation
4. gain insight into vector identities
5. appreciate the theoretical background of concepts of vector calculus and its applications

Unit I

8 Hours

Limits of vector point functions: Scalar valued and vector valued point functions, limits, Directional derivatives along co-ordinate axis, along any line

Unit II

9 Hours

Vector differentiation: Vector Differentiation, Ordinary derivatives of vectors, Differentiability, Tangent vector of a curve, Unit tangent vector, Principle normal, curvature, Binormal, Torsion, Frenet-Serret formulae and applications

Unit III

8 Hours

Vector identities: Gradient, Divergence, Cur, their geometrical interpretations and Successive operations

Unit IV

8 Hours

Line, surface and Volume integrals: Line Integral, Surface Integral, Volume Integral

Unit V

9 Hours

Stokes theorem, Gauss divergence theorem and applications, Greens Theorem and applications.

Text Books

- 1 Vector Calculus by Santhi Narayana Published by S. Chand & Company Pvt. Ltd., New Delhi.
- 2 Vector Calculus by R. Gupta Published by Laxmi Publications.
- G.B. Thomas and R.L. Finney, *Calculus*, 9th Ed., Pearson Education, Delhi, 2005.
- H. Anton, I. Bivens and S. Davis, *Calculus*, John Wiley and Sons (Asia) P. Ltd. 2002.
- P.C. Matthew's, *Vector Calculus*, Springer Verlag London Limited, 1998.

S-210: Linear Programming
(Core)

| L | T | P | C |
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Course Description:

This course aims to introduce to students the exciting area of Linear Programming that has several applications in real life. Linear programming is a method to achieve the best outcome (such as

maximum profit or lowest cost) in a mathematical model whose requirements are represented by linear relationships. Linear programming is a special case of mathematical programming .

Course Objectives:

1. Introduce the problems of Linear programming
2. Provide insights into the related concepts
3. Introduce theories and algorithms relevant to linear programming
4. Explain the concept of duality
5. Impart the knowledge of how to conduct sensitivity analysis

Course Outcomes:

At the end of the course students should be able to

1. understand the problems of Linear programming
2. gain insights into the related concepts
3. understand theories and algorithms relevant to linear programming
4. demonstrate knowledge of the concept of duality
5. understand and apply the knowledge of how to conduct sensitivity analysis

Unit I

8 Hours

Linear Programming Problems, Graphical Approach for Solving some Linear Programs. Convex Sets, Supporting and Separating Hyperplanes.

Unit II

9 Hours

Theory of simplex method, optimality and unboundedness, the simplex algorithm, simplex method in tableau format

Unit III

8 Hours

Introduction to artificial variables, two-phase method, Big-M method and their comparison.

Unit IV

9 Hours

Duality, formulation of the dual problem, primal- dual relationships, economic interpretation of the dual

Unit V

8 Hours

Sensitivity analysis.

Reference books:

“Operations Research” by S.D. Sharma published by Kedarnath and Ramnath Co.

“Linear Programming and Network Flows” by Mokhtar S. Bazaraa, John J. Jarvis and Hanif D. Sherali published by John Wiley and Sons, India, 2004, 2nd edition.

“Introduction to Operations Research” by Frederick S. Hiller and Gerald J. Lieberman published by TataMcGraw Hill, Singapore, 2004, 8th edition.

“Operations Research: An Introduction” by Hamdy A. Taha published by Prentice-HallIndia, 2006, 8th edition.

GMS-212: Public Finance and International Trade

(Core)

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Course Description:

The course aims to introduce to students the nature and scope of public finance, the basic concepts of taxation and provide a discussion on the Indian Tax System. In this context of public finance, the role of international trade in public finance and the nature of India’s balance of payments etc.

Course objectives:

1. To provide an introduction to the nature and scope of public finance, and sources and classification of public revenue.
2. To discuss the incidence and effects of taxation; determinants and effects of public expenditure.
3. To enable students to analyze the Indian Tax System, central-state financial relations, role of finance commission, and the concept of budget, including FRBM.
4. To impart the knowledge of the key concepts and components of international trade, and foundational trade theories.
5. To empower students to assess the characteristics of and trends in India’s balance of payment, exchange rate.

Course Outcomes:

At the end of the course students should be able to

1. understand the nature and scope of public finance, and sources and classification of public revenue.

2. explain the incidence and effects of taxation; determinants and effects of public expenditure.
3. analyze the Indian Tax System, central-state financial relations, role of finance commission, and the concept of budget, including FRBM.
4. explain the key concepts and components of international trade, and foundational trade theories.
5. assess the characteristics of and trends in India's balance of payment, exchange rate.

Unit I

8 Hours

Public Revenue: Nature and Scope of Public Finance – Sources and Classification – Direct and Indirect Taxes – Progressive, Proportional and Regressive Taxes – Canons of Taxation – Characteristics of a Good Tax System – Impact and Incidence of Taxation – Effects of Taxation

Unit II

9 Hours

Public Expenditure: Classification and Principles – Determinants of Public Expenditure – Effects of Public Expenditure – Public Debt: Nature, Sources, Classification, Effects and Redemption – Debt Trap – India's public revenue – taxes of union, state and local Governments.

Unit III

8 Hours

Indian Tax System: GST (Merits and Demerits) – Public Expenditure and Public Debt in India – Federal Finance – Centre-State Financial Relations – Functions of Finance Commission – Budget: Concepts & Types – Revenue Account – Capital Account – Types of Budget Deficits – Fiscal Responsibility and Budget Management (FRBM) – Role of Finance Commission in filling vertical and horizontal fiscal imbalance.

Unit IV

9 Hours

International Trade: Importance of foreign trade; Theories: absolute advantage, comparative advantage – Trade barriers: free trade vs. Protectionism – Tariffs – types and effects – Quotas – concept and types – Dumping – Voluntary Export Restraints – Export Subsidies – Exchange Controls – Dual Exchange Rates – Balance of trade and balance of payments – current account and capital account market for foreign exchange – determination of exchange rate.

Unit V

8 Hours

Trade theory: Concept – Components and Determinants of Balance of Payments – Equilibrium and Disequilibrium in Balance of Payments – Measures to Correct Disequilibrium in Balance of Payments – Recent Trends in India's Balance of Payments – Exchange Rates: Concept and Types- FEMA- Functions of IMF, WTO, TRIMS, TRIPS.

Text Book

Telugu Academy Publications

Reference books:

1. Dillard. D: The Economics of John Maynard Keynes, Crosby Lockwood and sons, London.
2. M.C Vaish: Macro Economic theory
3. S.B Gupths: Monetary economics, S. Chand and CO Delhi
4. Mithani D.M: Macro Economic Analysis and policy Oxford and JBH, New Delhi
5. M N Mishra & S B Mishra: “Insurance Principles & Practice” S Chnad 2007.
6. Lewis, M.K and P.D Mizan: Monetary Economics, Oxford University press, New Delhi
7. Central Statistical Organisations: “National Accounts Statistics”.
8. M.L.Seth :“Macro Economics”, Lakshmi Narayan Agarwal, 2006.
9. K.P.M.Sundaram : “Money, banking & International Trade”, Sultan Chand, 2006.
10. AUSDE: Study Material
11. Paul Krugman and Maurice Obstfeld (2002), International Economics: Theory and policy, latest edition
12. Salvatore D (1997), International Economics, PHI, New York
13. Dana M.S (2000), International Economics, Routledge Publications, London
14. Carbough, R.J (1999), International Economics
15. Bhagwati. j (1981), International trade, Cambridge university Press. London

GMS-254: Indian Financial Institutions and Markets
(Generic Elective)
(w.e.f. Admitted Batch 2020-2021)

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Course description

The course is intended to understand the role of money, Structure and functions of the Indian financial system. It is aimed to know about the financial and security markets and also characteristics of foreign exchange markets.

Course Objectives:

1. To understand the role of money, components of money demand and money supply, and measures of monetary control.
2. To learn the structure and functions of the Indian financial system.
3. To analyze the functioning of financial markets and security markets in the development of the Indian financial system.
4. To assess the characteristics and role of foreign exchange market, and to evaluate the financial derivatives.
5. To interpret the Indian financial institutions and markets

Course Outcomes

after the completion of the course the students should be able to

1. understand the role of money, components of money demand and money supply, and measures of monetary control.
2. learn the structure and functions of the Indian financial system.
3. analyze the functioning of financial markets and security markets in the development of the Indian financial system.
4. assess the characteristics and role of foreign exchange market, and to evaluate the financial derivatives.
5. interpret the Indian financial institutions and markets?

Unit-I

8 Hours

Introduction to Money: Simple exposition to money demand and money supply – RBI and measures of money supply – commercial banks and credit creation – RBI control on money supply – time value of money and interest rates.

Unit-II

8Hours

Introduction to Indian Financial System: Overview of Indian Financial System – functions of financial system – players – structure and growth – regulatory bodies.

Unit-III

9 Hours

Money and Capital Markets: Indian money market – instruments – institutions – functioning of Indian money market – changes in the regulatory framework – growth – stocks and bonds – primary and secondary markets – process of initial public offer – offer of Government bonds – stock market functioning – stock indices – evaluation of stocks and bonds – understanding stock market information.

Unit-IV

8 Hours

Foreign Exchange Market: Exchange rate – types – determination of exchange rate – nature of forex market – nature of forex inflow and outflow – examples of ECBs and NREs – RBI and exchange rate management.

Unit-V

9 Hours

Financial Derivatives: Need for derivatives – types of derivatives – example of how stock index derivatives could be used to hedge risks in stock market investment – evaluation of financial derivatives.

Reference books:

Bhole, L.M. (2002), Indian Financial Institutions and Markets, Tata McGraw Hill Ltd, New Delhi.

David S. Kidwell, David W. Blackwell, David A. Whidbee, Richard L. Peterson, (2005) Financial Institutions, Markets, and Money, 9th Edition, Wiley Publication, New York.
Khan M.F., (2006), Indian Financial Institutions, Tata McGraw Hill Ltd, New Delhi.
Pathak, Bharathi V., (2007), The Indian Financial System: Markets, Institutions and Services, 2/e, Pearson Education India, New Delhi.

GMS-256: Environmental Economics
(Generic Elective)
(w.e.f. Admitted Batch 2020-2021)

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| L | T | P | C |
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Course Description

This course is designed to expose the students to the basic principles of microeconomic theory. The emphasis will be on thinking like an economist and the course will illustrate how microeconomic concepts can be applied to analyze real-life situations.

Course Objectives:

1. To understand the fundamental concepts, subject matter, nature and scope of environmental economics and key environmental issues.
2. To learn the basic theory of economics of externalities and market failure.
3. To analyze the environmental problems, and their linkages with economic development.
4. To assess pollution control, design of policy instruments, and environmental planning and sustainable development indicators.
5. To evaluate the trends in Environmental changes and suggest solutions.

Course outcomes

After the completion of the course, the student should be able to

1. understand the fundamental concepts, subject matter, nature and scope of environmental economics and key environmental issues.
2. learn the basic theory of economics of externalities and market failure.
3. analyze the environmental problems, and their linkages with economic development.
4. assess pollution control, design of policy instruments, and environmental planning and sustainable development indicators.
5. evaluate the trends in Environmental changes and suggest solutions.

Unit I**8 Hours**

Theory and Concept: Nature and significance of environmental economics – definition and scope of environmental economics – basic theory – market system and the environment – welfare and environment – the economics of externalities.

Unit-II**9 Hours**

Environment and Economics: Environment – economy linkage – environment as a necessity and luxury – population and environment linkage – environmental use as an allocative problem – environment as a public good – valuation of environmental damages: land, water, air and forest.

Unit-III**9 Hours**

Environmental Problems: Economic development and environmental problems – air pollution – water pollution – sound pollution – energy use and environment problem – pollution and urbanization – global warming and greenhouse effect – health, urbanization, transport and technology – environmental degradation.

Unit-IV**8 Hours**

Pollution Control: Prevention, control and abatement of pollution – choice of policy instruments in developing countries – environmental law – sustainable development – indicators of sustainable development – environmental planning – environmental accounting.

Unit-V**8 Hours**

Policy measures: Basic approach – design of environmental policy – Indian environment policies and performance – pollution control boards and their function.

Reference books:

M. Karpagam (1993), Environmental Economics, Sterling Publishers, New Delhi.

S. Sankaran(1994) Environmental Economics, Margham , Madras

N.Rajalakshmi and Dhulasi Birundha (1994), Environomics, Economics of Enviroment, Allied, Ahmedabad.

S.Varadarajan and S. Elangovan(1992), Environmental economics, Speed, Chennai.

Singh G.N (Ed.) (1991) Environmental Economics, Mittal Publications, New Delhi.

Garge, M.R. (Ed.) (1996), Environmental Pollution and Protection, Deep and Deep Publications, New Delhi.

Lodha, S.L (Ed.) (1991), Economics of Environment, Publishers, New Delhi.

The Hindu survey of Environment: Annual Reports.

GMS-301: Algebra**(Core)****L T P C**

Course Description:

The course introduces students to variables, algebraic expressions, equations, inequalities, functions, and all their multiple representations. This course lays the foundation for mathematical literacy that will help students be successful in every subsequent course in mathematics.

Course Objectives:

1. Introduce students to algebraic variables, expressions, equations, inequalities and functions
2. Provide insights into the multiple representations of these
3. Help students solve applied, real-world, and theoretical mathematical problems requiring the solution of linear, quadratic, polynomial, rational, exponential, and logarithmic functions. 1, 2, 4, 5, 6
4. Impart knowledge of how to use a graphing calculator to create appropriate graphs that represent mathematical models
5. Enable them to examine a variety of relationships stated in symbolic, graphical, or tabular form and determine which represent functions.

Course Outcomes:

1. understand algebraic variables, expressions, equations, inequalities and functions
2. gain insights into the multiple representations of these
3. solve applied, real-world, and theoretical mathematical problems requiring the solution of linear, quadratic, polynomial, rational, exponential, and logarithmic functions. 1, 2, 4, 5, 6
4. use a graphing calculator to create appropriate graphs that represent mathematical models
5. examine a variety of relationships stated in symbolic, graphical, or tabular form and determine which represent functions.

Unit I**8 Hours**

Groups: Binary Operation – Algebraic structure – semi group-monoid – Group definition and elementary properties Finite and Infinite groups – examples – order of a group. Composition tables with examples.

Unit II**9 Hours**

Subgroups: Complex Definition – Multiplication of two complexes Inverse of a complex-Subgroup definition – examples-criterion for a complex to be a subgroups. Criterion for the product of two subgroups to be a subgroup-union and Intersection of subgroups.

Co-sets and Lagrange's Theorem

Cosets Definition – properties of Cosets–Index of a subgroups of a finite groups–Lagrange's Theorem.

Unit III**8 Hours**

Normal Subgroups: Definition of normal subgroup – proper and improper normal subgroup– Hamilton group – criterion for a subgroup to be a normal subgroup – intersection of two normal subgroups – Sub group of index 2 is a normal sub group – simple group – quotient group – criteria for the existence of a quotient group.

Unit IV

8 Hours

Homomorphism: Definition of homomorphism – Image of homomorphism elementary properties of homomorphism – Isomorphism – automorphism definitions and elementary properties–kernel of a homomorphism – fundamental theorem on Homomorphism and applications.

Unit V

9 Hours

Permutations and Cyclic Groups: Definition of permutation – permutation multiplication – Inverse of a permutation – cyclic permutations – transposition – even and odd permutations – Cayley's theorem.

Cyclic Groups: Definition of cyclic group – elementary properties – classification of cyclic groups.

Text books

A text book of Mathematics for B.A. / B.Sc. by B.V.S.S. SARMA and others Published By S. Chand & Company New Delhi.

A. First course in Abstract Algebra, by J.B. Fraleigh Published by Narosa Publishing house.

Modern Algebra by M.L. Khanna.

John B. Fraleigh, *A First Course in Abstract Algebra*, 7th Ed., Pearson, 2002.

M. Artin, *Abstract Algebra*, 2nd Ed., Pearson, 2011.

**GMS-303: Theory of Equations
(Core)**

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|---|---|---|---|
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Course Description:

This course introduced the Theory of Equations to students. In algebra, the theory of equations is the study of algebraic equations (also called “polynomial equations”), which are equations defined by a polynomial. The main problem of the theory of equations was to know when an algebraic equation has an algebraic solution. This problem was completely solved in 1830 by Évariste Galois, by introducing what is now called Galois theory.

Course Objectives:

1. Impart overall knowledge of the Theory of Equations
2. Discuss the general properties, graphic representation and values of polynomials
3. Highlight the relationship between roots and coefficients of equations
4. Provide knowledge about transformation of equations
5. Explain algebraic solutions of the cubic and biquadratic

Course Outcomes:

At the end of the course the students should be able to

1. gain overall knowledge of the Theory of Equations
2. understand the general properties, graphic representation and values of polynomials
3. appreciate the relationship between roots and coefficients of equations
4. acquire knowledge about transformation of equations
5. demonstrate the ability to explain algebraic solutions of the cubic and biquadratic

Unit I

8 Hours

General properties of polynomials, Graphical representation of a polynomials, maximum and minimum values of a polynomials

Unit II

9 Hours

Quadratic Equations, General properties of equations, Descarte's rule of signs positive and negative rule.

Unit III

8 Hours

Relation between the roots and the coefficients of equations. Symmetric functions, Applications symmetric function of the roots

Unit IV

9 Hours

Transformation of equations. Solutions of reciprocal and binomial equations.

Unit V

8 Hours

Algebraic solutions of the cubic and biquadratic. Properties of the derived functions.

Text Books

W.S. Burnside and A.W. Panton, *The Theory of Equations*, Dublin University Press, 1954.

C. C. McDuffie, *Theory of Equations*, John Wiley & Sons Inc., 1954.

GMS-305: Sampling Techniques and Design of Experiments (Core)

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| L | T | P | C |
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Course Description

This course introduces the exciting field of Sampling Techniques and Design of Experiments that have many applications in almost every field. The course aims to introduce students to the principal steps in sample survey and techniques like simple random sampling, stratified random sampling, analysis of variance, and introduces issues with the design of experiments.

Course Objectives:

1. Introduce the field of sampling techniques and design of experiments
2. Impart knowledge about various sampling techniques
3. Impart knowledge about experimental design
4. Enable students to apply the sampling techniques for problem solving purposes
5. Empower students to design experiments

Course Outcomes:

At the end of the course students should be able to

1. understand the basic concepts in the field of sampling techniques and design of experiments
2. gain acquaintance with various sampling techniques
3. gain knowledge about experimental design
4. apply the sampling techniques for problem solving purposes
5. design experiments

Unit I

8 Hours

Sampling Theory: Principle steps in a sample survey, Censes versus sample survey, sampling and Non-sampling errors. Types of sampling - subjective, probability and mixed sampling methods.

Unit –II

9 Hours

Simple Random Sampling: Meaning of Samples and methods to draw, estimation of population mean, variances in SRSWR& SRSWOR.

Unit III

8 Hours

Stratified random sampling: Proportional and optimum allocation of sample sizes in stratification. Variances in these methods. Systematic sampling: Systematic sampling when N

= nk comparison of their relative efficiencies. Advantages and Disadvantages of above methods of sampling.

Unit IV

8 Hours

Analysis of Variance: One way with equal and unequal classifications and two way classifications.

Unit V

9 Hours

Design of Experiments: Principles of experimentation in Designs, analysis of completely randomised design (CRD), Randomised block design (RBD) and Latin square design (LSD) including one missing observation, efficiency of these designs and concept of factorial Experiment.

Text books

Telugu Academy BA/BSc III year paper - III Statistics - applied statistics -
Telugu Academy by prof. K. Srinivasa Rao, Dr D. Giri. Dr A. Anand, Dr V. Papaiah Sastry.
K.V.S. Sarma: Statistics Made Simple: Do it yourself on PC. PHI.

Reference books:

Fundamentals of applied statistics: VK Kapoor and SC Gupta.
Indian Official statistics - MR Saluja.
Anuvarthita Sankyaka Sastram- Telugu Academy.

**GMS-309: Mathematical Economics
(Core)**

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| L | T | P | C |
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Course Description:

This course aims to introduce to students the field of Mathematical Economics. It introduces them to Mathematical Representation of Economic Models, Economic functions such as Demand and Supply functions, Utility and Consumption functions, Production and Cost functions. It also provides perspective on various other related concepts in the field.

Course Objectives:

1. To provide understanding of foundational mathematical concepts and theories that represent various economic models
2. To provide understanding of foundational mathematical concepts and theories that represent

various economic functions.

3. To provide understanding of various functions, including production functions, demand and supply functions, cost functions through mathematical formations.
4. To enable students to learn and apply constraint optimization methods and theories of market equilibrium.
5. To acquaint the students with input output analysis and concepts thereof.

Course Outcomes:

At the end of the course students should be able to

1. Demonstrate knowledge of foundational mathematical concepts and theories that represent various economic models
2. Demonstrate knowledge of foundational mathematical concepts and theories that represent various economic functions.
3. Understand various functions, including production functions, demand and supply functions, cost functions through mathematical formations.
4. Learn and apply constraint optimization methods and theories of market equilibrium.
5. Get acquaintance with input output analysis and concepts thereof.

Unit I

8 Hours

Introduction to Mathematical Economics: Meaning and Importance; Mathematical Representation of Economic Models- Economic functions; Demand function; Supply function; Utility function; Consumption function; Production function; Cost function; Revenue function; Profit function; Saving function ; Investment function.

Unit II

9 Hours

Marginal, Revenue, Cost and Demand Elasticity Concepts: Marginal Concepts: Marginal utility; Marginal propensity to Consume; Marginal propensity to Save Marginal product, Marginal Cost; Marginal Revenue; Marginal Rate of Substitution; Marginal Rate of Technical Substitution; Average Revenue and Marginal Revenue; Average Cost and Marginal Cost; Elasticity; Demand elasticity; Price elasticity; Income elasticity ; Cross elasticity

Unit III

8 Hours

Constraint Optimisation, Production Function: Constraint optimisation Methods; Substitution and Lagrange Methods; Optimisation Concepts; Utility Maximisation; Cost Minimisation; Profit Maximisation
Surplus Concepts: Rules of integration; Consumer and producers surplus; Production Functions

Linear, Homogeneous production Functions; Fixed production Functions- Cobb Douglas ;
Production function

Unit IV

8 Hours

Market Equilibrium: Perfect Competition; Monopoly; Discriminating Monopoly; Monopolistic competition ,oligopoly

Unit V

9 Hours

Input and Output Analysis: Introduction; Basic elements of the model; Static input output model; Hawkins – Simon condition; Leontief input output Model; Closed input output model
Weaknesses and limitations of input output analysis

Reference books:

- Chiang A.C. and K. Wainwright, Fundamental Methods of Mathematical Economics, 4th Edition, McGraw-Hill, New York, 2005.(cw)
- Dowling E.T, Introduction to Mathematical Economics, 2nd Edition, Schaum’s Series, McGraw-Hill, New York, 2003(ETD)
- R.G.D Allen, Mathematical Economics
- Mehta and Madnani -Mathematics for Economics
- Joshi and Agarwal- Mathematics for Economics
- Taro Yamane- Mathematics for Economics

GMS-311: Complex Analysis
(Core)

| L | T | P | C |
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Course Description:

Course would focus on Identifying curves and regions in the complex plane defined by simple expressions. Describe basic properties of complex integration and having the ability to compute such integrals. Decide when and where a given function is analytic and be able to find its series development.

Course Objectives:

1. To understand the modulus of a Complex valued function and results
2. To provide insights into manipulation skills in the use of Rouché’s theorem.
3. To impart to students the ability compute complex integration
4. To enable students to decide on the analytic function and find its series development
5. To provide understanding of certain theorems like Inverse Function theorem, Hardmards three circle theorem.

Course Outcomes:

At the end of the course students should be able to

1. demonstrate knowledge of the modulus of a Complex valued function and results
2. gain insights into manipulation skills in the use of Rouche's theorem.
3. evince the ability compute complex integration
4. decide on the analytic function and find its series development
5. demonstrate working knowledge of certain theorems like Inverse Function theorem, Hardmards three circle theorem.

Unit I

8 Hours

Limits, Limits involving the point at infinity, continuity. Properties of complex numbers, regions in the complex plane, functions of complex variable, mappings. Derivatives, differentiation formulas, Cauchy-Riemann equations, sufficient conditions for differentiability.

Unit II

9 Hours

Analytic functions, examples of analytic functions, exponential function, Logarithmic function, trigonometric function, derivatives of functions,

Unit III

8 Hours

Definite integrals of functions. Contours, Contour integrals and its examples, upper bounds for moduli of contour integrals.

Unit IV

9 Hours

Cauchy-Goursat theorem, Cauchy integral formula. Liouville's theorem and the fundamental theorem of algebra. Convergence of sequences and series, Taylor series and its examples.

Unit V

8 Hours

Laurent series and its examples, absolute and uniform convergence of power series.

Text books

“Complex Analysis for Mathematics and Engineering” by John H. Mathews and Russell W. Howell published by Jones and artlett publishers, 5th edition.

“Complex Variables and Applications” by James Ward Brown and Ruel Vance Churchill published by Mc Graw-Hill Higher Education, 8th edition.

“Complex Analysis” by Joseph Bak and Donald J. Newman published by Springer-Verlag New York, Inc., New York, 1997, 2nd edition.

GMS-323: SPSS LAB
(Core)

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| L | T | P | C |
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Course Description:

This course aims to introduce the students to an important tool called SPSS in the quantitative analysis required in many fields of research. It provides them the basic understanding of data analysis with SPSS software.

Course Objectives:

1. Provide the overall knowledge about the importance of data analysis in different fields
2. Provide an understanding of the significance of SPSS in data analysis
3. Introduce the basic concepts of SPSS
4. Provide a hands on experience on conducting various statistical tests in SPSS
5. Enable students acquire ease in using SPSS in data analysis exercises

Course Outcomes:

At the end of the course students will be able to

1. gain overall knowledge about the importance of data analysis in different fields
2. demonstrate an understanding of the significance of SPSS in data analysis
3. understand the basic concepts of SPSS
4. practically learn through a hands on experience on conducting various statistical tests in SPSS
5. acquire ease in using SPSS in data analysis exercises

Unit I

9 Hours

Introduction to SPSS: Introduction to SPSS, Data analysis with SPSS, general aspects, workflow, critical issues, -SPSS: general description, functions, menus, commands, SPSS file management, defining variables, - Manual input of data, automated input of data and file import, Class exercise

Unit II

8 Hours

Data manipulation: Data Transformation, Syntax files and scripts,- Output management Class exercise Descriptive analysis of data Frequencies,- Descriptive, Explore, - Crosstabs, - Charts

Unit III

8 Hours

Statistical tests: For Means (Large and Small test), T-test, One-way ANOVA, Non parametric tests, Normality tests, test for proportion, Class exercise

Unit IV**9 Hours**

Correlation and regression- Linear correlation and regression, multiple regressions (linear), Class exercise

Unit V**8 Hours**

Multivariate analysis Factor analysis, Cluster analysis Summary and final exercise

Reference books:

Field A., *Discovering Statistics Using SPSS, Fourth Edition*, SAGE, 2013

A hand book of Statistical Analyses using SPSS, Sabine Landau and Brian S.Everitt

**GMS-342: Linear Algebra
(Discipline Specific Elective)**

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|----------|----------|----------|----------|
| L | T | P | C |
| 3 | 0 | 0 | 3 |

Course Description:

This course introduces the students to Linear Algebra. Linear algebra is central to almost all areas of mathematics. For instance, linear algebra is fundamental in modern presentations of geometry, including for defining basic objects such as lines, planes and rotations. Also, functional analysis, a branch of mathematical analysis, may be viewed as the application of linear algebra to spaces of functions. Linear algebra is also used in most sciences and fields of engineering, because it allows modeling many natural phenomena, and computing efficiently with such models.

Course Objectives:

1. Impart an overall understanding of Linear Algebra
2. Introduce concepts such as ranks, forms, equations and matrices
3. Introduce theories and theorems related to Linear Algebra
4. Provide an understanding of vector spaces and their relation to algebra
5. Enable students to apply the concepts of Linear Algebra for problem solving

Course Outcomes:``

At the end of the course students will be able to

1. gain an overall understanding of Linear Algebra

2. understand concepts such as ranks, forms, equations and matrices
3. gain insights into theories and theorems related to Linear Algebra
4. gain an understanding of vector spaces and their relation to algebra
5. apply the concepts of Linear Algebra for problem solving

Unit I

8 Hours

Matrices I : Rank of a matrix, Elementary transformations, normal form ,Echelon form , Rank of product of matrices ,System of homogeneous equations, Linear equations, Null space and nullity of matrices

Unit II

9 Hours

Matrices II: Condition for consistency, Crammers' rule, Characteristic values and characteristic vectors, Cayley- Hamilton theorem ,Inverse of a matrix using Cayley- Hamilton theorem, Minimal polynomial of a matrix.

Unit III

8 Hours

Linear Algebra -I

Vector spaces, General properties of vector spaces, Vector subspaces, Algebra of subspaces, linear combination of vectors. Linear span, linear sum of two subspaces, Linear independence and dependence of vectors, Basis of vector space, Finite dimensional vector spaces, Dimension of a vector space, Dimension of a subspace.

Unit IV

9 Hours

Linear Algebra - II

Linear transformations, linear operators, Range and null space of linear transformation, Rank and nullity of linear transformations, Linear transformations as vectors, Product of linear transformations, Invertible linear transformation.

Unit V

8 Hours

Inner product spaces

Inner product spaces, Euclidean and Unit ary spaces, Norm or length of a vector, Schwartz inequality, Orthogonality, Orthonormal al set, complete orthonormal set, Gram - Schmidt orthogonalisation process.

Text Books

“A Text Book of B.Sc. Mathematics Volume-III” by V.Venkateswara Rao , N Krishna Murthy, B.V.S.S. Sarma and S. AnjaneyaSastry, published by S.Chand& Company Ltd., New Delhi.

“Linear Algebra” by A.R. Vasishtha and J.N. Sharma published by Krishna Prakashan Media (P) Ltd.

“Linear Algebra” by Kenneth Hoffman and Ray Alden Kunze published by Pearson Education (low priced edition), New Delhi.

“Linear Algebra” by Stephen H. Friedberg, Arnold J. Insel, Lawrence E. Spence, published by Prentice Hall of India Pvt. Ltd., 4th edition New Delhi, 2007.

“Rings and Linear Algebra” by Pundir, Pundir published by PragathiPrakashan

GMS-343: Economics of Growth and Development
(Discipline Specific Elective)

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|----------|----------|----------|----------|
| L | T | P | C |
| 3 | 0 | 0 | 3 |

Course Description:

The paper aims at introducing concepts, theories and policies regarding growth and development. The meaning of development as it has evolved over the years is clarified. The contemporary as well as classic theories of growth, development and underdevelopment are considered in detail. Theories and issues related to population, poverty and human resources are considered. Urban and rural aspects of the development process are studied as so too are the international aspects of development. The approach has been to cover all important areas of development economics. The paper should be taught with reference to Indian economic conditions.

Course Objectives:

1. To understand the concepts of economic growth and development, and the difference between them.
2. To learn the economic growth models and theories of economic development.
3. To analyze the interrelationship between environment and sustainable development, and the role of state regulation.
4. To assess the role of planning and economic reforms in India, and the state of development.
5. To evaluate economic growth and development.

Course outcomes

After the completion of the course, the student should be able to

1. Understand the concept of economic growth and development and the differences between them.
2. learn economics growth models and theories of economic development.
3. analyze the interrelationship between environment and sustainable development.
4. assess the role of planning and economic reforms in India.
5. Evaluate economic growth and development.

Unit-I**8 Hours**

Growth and development: Meaning of Economic growth and Development – Differences b/w Economic growth and development – Measurement of Economic Development – Obstacles to Economic Development

Unit-II**9 Hours**

Growth Modals: Harrod-Domar growth model – Joan Robinson's model of capital accumulation – Big push theory – Theory of critical minimum effort – The concept of sustainable development.

Unit-III**8 Hours**

Theories of Economic development: Adam Smith's theory – Karl Marx theory – Rostow Stages of Economic growth – Balanced growth theory – Unbalanced growth theory.

Unit-IV**9 Hours**

Environment and Sustainable Development: Defining sustainability for renewable resource – Brief history of environmental change – Common-pool resources – Environmental externalities and state regulation of the environment – Economic activity and climate change – Human Development Index.

Unit-V**9 Hours**

Planning and development: Introduction; History of planning in India – Features and main objectives of planning – Overview of achievements and shortcomings of planning in India – Mobilization of resources for planning – Niti Ayogh– Economic Reforms: Liberalisation – Privatisation – Globalisation – Financial inclusion.

Reference books:

Dhingra, I.C - "Indian Economy", Sultan Chand, 2014.

Ruddar Dutt and K.P.M. Sundaram - "Indian Economy", S.Chand & Co., 2015.

G.M.Meier - "Leading Issues in Economic Development", Oxford University Press, New York,.

M.P.Todaro - "Economic Development", Longman, London 6/e, 1996.

Reserve Bank of India - Hand book of Statistics on Indian Economy (Latest).

S.K.Misra & V,K,Puri - "Indian Economy", Himalaya Publishing House, 2015.

R.S.Rao, V.Hanumantha Rao & N.Venu Gopal (Ed) - Fifty Years of Andhra Pradesh (1956-2006), Centre for Documentation, Research and Communications, Hyderabad, 2007.

G.Omkarnath - Economics - A Primer for India - Orient Blackswan, 2012.

Benjamin Higgins - Economic Development

Telugu Academy Publications.

Dr. Ch.S.G.K. Murthy, Indian Economy – GITAM University

**GMS-344: Number Theory
(Discipline Specific Elective)****L T P C**

Course Description

This course introduces to students Number Theory, which is a branch of pure mathematics devoted primarily to the study of the integers and integer-valued functions. Number theorists study prime numbers as well as the properties of mathematical objects made out of integers or defined as generalizations of the integers.

Course Objectives:

1. Provide understanding of the basic concepts of Number Theory
2. Introduce to students different algorithms, and theorems in Number Theory
3. Enable students to understand the representation of integers
4. Explain Number theoretic functions
5. Introduce different types of functions in Number Theory

Course Outcomes:

1. gain an understanding of the basic concepts of Number Theory
2. understand different algorithms, and theorems in Number Theory
3. understand the representation of integers
4. recognise Number theoretic functions
5. recall different types of functions in Number Theory

Unit I

8 Hours

Division algorithm, Lame's theorem, linear Diophantine equation, fundamental theorem of arithmetic, Prime counting function, statement of prime number theorem.

Unit II

9 Hours

Goldbach conjecture, binary and decimal representation of integers, linear congruences, complete set of residues.

Unit III

8 Hours

Number theoretic functions, sum and number of divisors, totally multiplicative functions, definition and properties of the Dirichlet product

Unit IV

9 Hours

The Order of a Positive Integer- Primality Tests- Primitive Roots for Primes- Composites with Primitive roots- The Algebra of Indices

Unit V

8 Hours

The Möbius inversion formula, the greatest integer function, Euler's phi-function.

Text books

David M. Burton, *Elementary Number Theory* 6th Ed., Tata McGraw-Hill Edition, Indian reprint, 2007.

Richard E. Klima, Neil Sigmon, Ernest Stitzinger, *Applications of Abstract Algebra with Maple*, CRC Press, Boca Raton, 2000.

Neville Robinns, *Beginning Number Theory*, 2nd Ed., Narosa Publishing House Pvt. Limited, Delhi, 2007.

GMS-345: Indian Economy: Issues and Policies
(Discipline Specific Elective)

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| L | T | P | C |
| 3 | 0 | 0 | 3 |

Course description

The course is intended to explain the concept of developing economy and its allied concepts like demography agriculture industry and infrastructure

Course Objectives:

1. To understand the basic characteristics of the Indian economy as a developing country, and the major development issues faced by the Indian economy.
2. To learn about the incidence of poverty and unemployment in India, and the demographic changes and urbanization trends of India.
3. To analyze and assess the role of agriculture in the Indian economy, and the various issues of industrial development.
4. To learn and assess the role of infrastructure and its contribution to the Indian economy.
5. learn and assess the role of infrastructure and its contribution to the Indian economy.

Course Outcomes

After the completion of the course, the student should be able to.

1. understand the basic characteristics of the Indian economy as a developing country, and the major development issues faced by the Indian economy.
2. learn about the incidence of poverty and unemployment in India, and the demographic changes and urbanization trends of India.
3. analyze and assess the role of agriculture in the Indian economy, and the various issues of industrial development.
4. learn and assess the role of infrastructure and its contribution to the Indian economy.

5. Evaluate the trend in contemporary times



Unit-I **8 Hours**

India as a developing economy: Meaning of an Underdeveloped economy – Basic characteristics of Indian Economy as a Developing Economy – Major issues of development

Unit-II **9 Hours**

Demography – Poverty and Unemployment in India Economy: Demography: Population size and growth rates – Age and gender distribution – Trends of urbanization – Occupational distribution of labour force – Nature of poverty – Causes for poverty – measures to eradicate poverty – Nature and types of unemployment – Causes for unemployment – Remedial measures of unemployment.

Unit-III **8 Hours**

Agriculture in Indian Economy: Place of agriculture in national economy – Green revolution – Present position of Indian agriculture – Crop pattern – Irrigation – Mechanization of agriculture – Land reforms – Agriculture finance – Current status of agricultural marketing – Agriculture labour

Unit-IV **8 Hours**

Industry in Indian Economy: Trends in industrial production and productivity – Problems of industrial development – Industrial sickness – Role of public sector – Role of private sector – Private sector in post-liberalization – Problems of service sector – Growth contribution employment India's IT, ITES, IOT

Unit-V **9 Hours**

Infrastructure in India Economy: Natural resources and economic development – Land resources – Soil erosion – Water resources – Forest resources – Mineral resources – Source of energy – Transport system – Communications – Education – Health and nutrition – Income distribution

Reference books:

V. K. Puri, S.K. Misra, Indian Economy, 31/e, Himalaya Publishing House, 2014.

R.C. Dutt, K.P.M. Sundaram, Indian Economy, S. Chand and Company, 2010.

A. N. Agarwal, Indian Economy, New Age International Limited, 2012.

I.C Dhingra, Indian Economy, Sultan Chand and Company, 2007.

Reserve Bank of India - Hand book of Statistics on Indian Economy (Latest).

Telugu Academy Publications.

Dr. Ch.S.G.K. Murthy, Indian Economy - GITAM University

GMS-346: Statistical Quality Control and Reliability
(Discipline Specific Elective)

L T P C

Course Description:

This course aims to introduce Statistical Quality Control and Reliability to students. Statistical quality control is the use of statistical methods in the monitoring and maintaining of the quality of products and services. The different methods include acceptance sampling and statistical process control.

Course Objectives:

1. Explain the importance of SQC in industry
2. Introduce use of control charts
3. Introduce acceptance sampling plans
4. Provide an overview of sampling plans
5. Explain functions related to reliability

Course Outcomes:

At the end of this course, students should be able to

1. explain the importance of SQC in industry
2. understand the use of control charts
3. gain understanding of acceptance sampling plans
4. demonstrate ability to provide an overview of sampling plans
5. recognise functions related to reliability

Unit I**8 Hours**

Statistical Quality Control: Importance of SQC in industry, statistical basis of shewart control charts, uses of control charts. Interpretation of control charts, control limits, Natural tolerance limits and specification limits.

Unit II**9 Hours**

Variable Control Chart: Construction of \bar{X} , R charts for variables, Attribute control charts- NP, P charts, C chart.

Unit III**8 Hours**

Acceptance sampling plans: Scope, Producer's risk and consumer's risk .Concepts of AQL and LTPD.

Unit IV

8 Hours

Sampling Plans: Single and double sampling plans, OC and ASN functions, Double and single Sampling plans for attributes using Binomial.

Unit V

9 Hours

Reliability: Introduction, failure rates, Hazard function, estimation of reliability, exponential distribution as life model, its memory less property.

Reference books:

Kapoor, V.K. and Gupta, S.P. (1978): Fundamentals of applied statistics, Sultan Chand & Sons.

Gupta, R.C.(1974): Statistical Quality Control.

Montgomery, D.C. (1983): Introduction to Statistical Quality Control, John Waley& Sons.

Ekambaram, S K. (1963): Statistical basis of Acceptance sampling, Asia Publishing House.

Grant, E.L. and Laven Worth, R.S.: Statistical Quality Control, McGraw Hill.

GMS-348: Optimization Techniques
(Discipline Specific Elective)

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|----------|----------|----------|----------|
| L | T | P | C |
| 3 | 0 | 0 | 3 |

Course Description:

This course aims to introduce Optimization Technique using mathematical formulations. Optimization techniques are a set of tools that are important in efficiently managing an enterprise's resources and thereby maximizing wealth of the stakeholders.

Course Objectives:

1. Introduce the significance of Optimization Techniques to industry and business
2. Explain the Linear Programming Problems
3. Introduce duality in linear programming
4. Explain the simplex method
5. Provide an understanding of the assignment and transportation, and sequencing problems

Course Outcomes:

At the end of the course students should be able to

1. understand the significance of Optimization Techniques to industry and business
2. gain understanding of the Linear Programming Problems
3. demonstrate the ability to explain duality in linear programming
4. demonstrate the ability to explain the simplex method
5. understand the assignment and transportation, and sequencing problems

Unit I

8 Hours

Linear Programming: Linear Programming Problem (LPP), Mathematical Formulation, Graphical method of solution of LPP with two variables, Some exceptional cases, General LPP, Canonical and Standard forms of LPP.

Unit II

9 Hours

Simplex Method: Simplex Method, Artificial variables, Big-M and Two-phase simplex Methods, Revised simplex Method, Degeneracy in Linear Programming

Unit III

8 Hours

Duality in Linear programming: Introduction, Formulation of a dual problem, Properties of duality, Application of duality to solve LPP, Dual simplex method.

Unit IV

9 Hours

Transportation and Assignment Problems: Introduction and LP formulation of Transportation Problem, Methods to find Initial basic feasible solutions of transportation problem, Transportation Algorithm (MODI Method) to obtain optimal solution. Assignment problem- Mathematical formulation, Hungarian Method of solution.

Unit V

8 Hours

Sequencing Problem: Introduction, Basic terminology, Algorithms to obtain optimal solutions for sequencing problems with n jobs and two machines and n jobs and k machines

Reference books:

Kanti Swarup, P.K Gupta and Manmohan: Operations Research, Sultan Chand and Sons
Hamdy A Taha, Operations Research: An Introduction, Pearson Education
S.D Sharma: Operations Research, Kedarnath, Ramnath& Co.
H.M. Wagner: Principles of Operations Research, Prentice Hall of India.
G. Hadley: Linear Programming, Narosa Book Distributors
Gass: Linear Programming, Mc Graw Hill

GMS-352: Monetary Economics

(Generic Elective)

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|----------|----------|----------|----------|
| L | T | P | C |
| 3 | 0 | 0 | 3 |

Course Description:

This course aims to introduce to students the role of money in economics. It provides theoretical tools for them to apply while understanding the demand and supply of money, the role of intermediaries, and policy instruments. They will be able to gain an overall understanding of the functions of money in economics through this course.

Course Objectives:

1. To understand the definition and various functions of money.
2. To learn and apply various theories of money demand and money supply.
3. To assess the monetary transmission mechanism and the role of financial intermediaries.
4. To discuss and analyze various monetary policy instruments and lessons learned from them.
5. To explain the central banking system.

Course outcomes

After the completion of the course, the student should be able to

1. understand the definition and various functions of money.
2. learn and apply various theories of money demand and money supply.
3. assess the monetary transmission mechanism and the role of financial intermediaries.
4. discuss and analyze various monetary policy instruments and lessons learned from them.
5. explain the central banking system

Unit-I

9Hours

Definition, Functions and Theories of Money: Money and its function – the concepts and definitions of money – measurement of money – advantages of money – theories of demand for money: Classical approach, the transactions and cash balance approach – the Keynesian analysis – Post Keynesian developments – Monetarist approach.

Unit-II

8 Hours

Money Supply: Financial intermediaries – nature and functions– theories of money supply – mechanistic model of money supply determination – high powered money and behavioral model of money supply determination – methods of monetary control – Interest rates in closed and open economies – theories of term structure.

Unit-III**9 Hours**

Monetary Transmission Mechanism: Meaning – interest rate channel, credit channel, bank lending channel, balance sheet channel, exchange rate channel, other asset price channels.

Unit-IV**8 Hours**

Monetary Policy: Instruments, targets, indicators, lags in monetary policy and rules versus discretion debate.

Unit-V**9 Hours**

Central Banking: Functions of a central bank – quantitative and qualitative methods of credit control – bank rate policy, open market operations, cash reserve ratio, selective methods, role and functions of Reserve Bank of India – objectives and limitations of monetary policy with special reference to India.

Reference books:

Pierce, D G and P J Tysome (1985), Monetary economics: theories, evidence and policy, Butterworths, London.

Saving, R T (1967), “Monetary policy targets and indicators”, Journal of Political economy, 75: 446-465

Carl E Walsh (1998), Monetary Theory and Policy, MIT Press, Cambridge.

Bennett McCallum (1989), Monetary Economics: Theory and Policy, Macmillan.

C Rangarajan (1999), Indian Economy: Essays in Money and Finance, UBSPD.

Narendra Jadhav (1994), Monetary Economics for India, Macmillan

GMS-358: Introduction to Econometrics and Computer Application**(Discipline Specific Elective)**

| L | T | P | C |
|----------|----------|----------|----------|
| 3 | 0 | 0 | 3 |

Course Description:

This course aims to introduce students to the field of Econometrics and computer applications in the field. Econometrics is the statistical and mathematical analysis of economic relationships, often serving as a basis for economic forecasting. Such information is sometimes used by governments to set economic policy and by private business to aid decisions on prices, inventory, and production.

Course Objectives:

1. To introduce and highlight the significance of the field of Econometrics

2. To impart understanding of the econometric approach to economic theories, including the definition, scope, methodology, and classification of econometrics.
3. To explain the concept of statistical inferencing and various methods of applying inferencing on economic issues.
4. To enable students to apply the simple and multiple regression analysis in theory and in practice using the illustrations.
5. To empower students to analyze and apply various hypothesis testing methods and issues of heteroskedasticity and multicollinearity.

Course Outcomes:

At the end of the course students will be able to

1. appreciate the significance of the field of Econometrics
2. understand the econometric approach to economic theories, including the definition, scope, methodology, and classification of econometrics.
3. demonstrate the ability to explain the concept of statistical inferencing and various methods of applying inferencing on economic issues.
4. apply the simple and multiple regression analysis in theory and in practice using the illustrations.
5. analyze and apply various hypothesis testing methods and issues of heteroskedasticity and multicollinearity.

| | | |
|---|---------------|----------------|
| | Unit I | 8 |
| Hours | | |
| Introduction: Definition and Scope of Econometrics – Methodology of econometrics – Nature of econometric approach – Goals of econometrics – Theoretical and applied econometrics – the aims and methodology of econometrics – the nature and sources of data for econometric analysis. | | |
| Unit II | | 9 Hours |
| Classical statistical inference: Estimation; Basic concepts of estimation – Properties of estimation – Properties of estimators – Unbiasedness; Efficiency – Consistency and sufficiency – Assumptions of Classical Linear Regression Model. | | |
| Unit III | | 8 Hours |
| Simple Regression Analysis: Stochastic and Non-stochastic relations – Simple linear regression model – Multiple Regression Analysis – Estimation of Regression parameters | | |
| Unit IV | | 9 Hours |

Testing procedure: OLS method- assumptions; Goodness of Fit – Testing of hypothesis – Scaling and Units measurement – Confidence interval – Type I and Type II errors – Gauss - Markov theorem

Unit V

8 Hours

Violation of important assumptions: Problems of Heteroskedasticity (1st Order) – Multicollinearity – Meaning, problems and implications

Reference books:

1. Damodar N. Gujarati (2007) *Basic Econometrics*, Tata McGraw Hill
2. G M K Madnani, *Introduction to Econometrics*, Oxford & IBH Publishing Co. Pvt. Ltd.
3. Damodar N. Gujarati, *Econometrics by Example*, Palgrave Macmillan, 2011
4. W. Stock (2007) *Introduction to Econometrics*, Pearson education
5. Dilip M. Nachane (2006) *Econometrics*, Oxford University Press, New Delhi
6. Christopher Dougherty, *Introduction to Econometrics*, Oxford University Press, 3rd edition, Indian Edition, 2007.
7. Hatekar Neeraj (2009), *Econometrics: The First Principles A Friendly Introduction*
8. Kapoor V. k. (2011), *Operations Research Problems & Solutions*, Sultan Chand & sons

GMS-360: Economics of Money, Banking and Finance (Discipline Specific Elective)

| L | T | P | C |
|---|---|---|---|
| 3 | 0 | 0 | 3 |

Course Description

This course is an attempt to begin the process of new economic thinking by reviving and updating some forgotten traditions and monetary thought that have become newly relevant. The entertaining of previously separate capital markets and money markets has produced a system with new dynamics as a lesson on new vulnerabilities. The probable character of the crisis has revealed the Global character of the system which is nothing new in post war history but not at all a new form of long-term perspective. Absolute rate Central to the crisis was the operation of derivative contracts. Modern money cannot be understood separated from Modern finance NOC and modern monetary theory can be constructed separated from the model financial theory.

Course Objectives

1. To understand the concept of money and its functions

2. To demonstrate the the demand for and supply of money
3. To analyze money and interest rates
4. To review RBI and monetary plans in India
5. To evaluate the expected utility theory and choice under uncertainty

Course Outcomes :

after the completion of the course the students are able to

1. understand the concept of money and its functions
2. demonstrate the the demand for and supply of money
3. analyze money and interest rates
4. review RBI and monetary plans in India
5. evaluate the expected utility theory and choice under uncertainty

Unit I

8 Hours

Introduction to the Course and Basic Concepts: Introduction – Concept of money and its functions – Basic banking and general principles of bank management – Role of money and banking for the economy– Historical aspect of money and banking in India.

Unit II

9 Hours

Demand for and Supply of Money: Demand for Money: Quantity theory of money – Keynesian analysis – Monetarist approach – Empirical evidences Supply of Money: Central bank and money supply – Creation of money and role of commercial banks.

Unit III

8 Hours

Money and Interest Rates: Money and Interest Rate: Understanding interest rates behavior and term structure of interest rate – Factors influencing changes in equilibrium interest rate and liquidity preference framework – Role of money and interest rates on real economic activity and inflation Applications: Changes in income, money and prices on equilibrium interest rates.

Unit IV

9 Hours

RBI and Conduct of Monetary Policy in India: Reserve Bank of India and its monetary policy: Overall monetary policy framework –instruments, targets and objectives – transmission mechanism – operating procedure, liquidity management and OMOs – challenges in the conduct of monetary policy - Banking supervision and regulation in India

Unit V

8 Hours

Expected Utility Theory and Choice under Uncertainty: The Economic properties of utility functions – concept & measures to model attitudes towards risk – Expected utility maximization – Risk aversion – First order stochastic dominance – Second order stochastic dominance - trade- off between risk and return - Introduction to Efficient Market Hypothesis (EMH).

Reference books:

1. Mishkin, Frederic (2008): The Economics of Money, Banking, and Financial Markets, 7th edition, Pearson Addition Wesley, New York
2. Pierce D.G. and P.J. Tysome (1985): Monetary Economics: Theories, Evidence and Policy, 2nd Edition, Butterworths, London
3. Rangarajan, C. and B. H. Dholakia (1979): Principles of Macroeconomics, Tata-McGraw Hill Publishing Company Limited, New Delhi
4. Rangarajan, C. (2009): India: Monetary Policy, Financial Stability and Other Essays, Academic Foundation, New Delhi.
5. Reddy, Y.V. (2000): Monetary and Financial Sector Reforms inrrrIndia: A Central Banker’s Perspective, UBSPD, New Delhi.
6. Reserve Bank of India: Report on Currency and Finance, various issues.
7. E. J. Elton and M.J. Gruber, Modern Portfolio Theory and Investment Analysis, Wiley, London.

GEM-252: Communication for Special Needs

(Generic Elective)

(w.e.f. Admitted Batch 2020-2021)

| L | T | P | C |
|----------|----------|----------|----------|
| 1 | 0 | 4 | 3 |

Course Description:

Understanding the influence of media images and stories on social norms; misrepresentation, defamation, and lack of representation; disability issues as rights issues and also the use of new image technologies; production of campaigns for social and political change through visual evidence.

Course Objectives:

1. Understanding communication and language impairments in individuals with autism spectrum disorder and related disabilities.
2. Understanding the process and components of communication of individuals and Communication and Media for the Differently Abled
3. Applying communication characteristics of individuals towards Media Representation of the Differently abled
4. Define areas of exceptionality and special education.
5. Identify exceptionality as to genetic and/or environmental causes.

Course Outcomes:

1. Explain how children develop an awareness of similarities and differences.
2. Describe learning experiences that promote children's appreciation and respect for all individuals and groups.
3. Describe available screening and assessment instruments.
4. Discuss classification and labeling of children with special needs.
5. Identify individuals and their roles in developing and implementing educational and family service plans.

Unit I

8 Hours

Defining Special Needs: Disability and the question of access; physical, emotional, behavioral, or learning disability or impairment; requirement of additional or specialized services, assistive devices, and special facilities; the discourse of marginalization (gender, poverty, access); the Indian scenario and the global scenario

Unit II

9 Hours

Communication and Media for the Differently Aabled: The visually challenged, Braille/JAWS, White Stick/ Tactile Tracks; the hearing impaired, sign language; need for positive focus on various types of disabilities; sharing of ideas for affordable care and products; promoting products for special needs; need for sensitization and training

Unit III

9 Hours

Media Representation of the Differently Aabled: Influence of media images and stories on social norms; misrepresentation, defamation, and lack of representation; disability issues as rights issues; fear and stereotypes reflected in media coverage; in-depth and thoughtful attention needed; media as a potent force in countering stigma and misinformation; role of media changing perceptions, eliminating discrimination, and raising public awareness

Unit IV

8 Hours

Video Advocacy: Use of new image technologies; production of campaigns for social and political change through visual evidence, personal stories, and precise audience targeting; impact of video advocacy organized advocacy and grassroots action; media association with non-profit social justice communities; supporting and promoting a culture of participation and sharing

Unit V

9 Hours

The Question of Inclusion: State, institutions and civil society, strategies of intervention in developed countries, the way forward in India; mass media communication for influencing change

Reference books:

Daniels, Marilyn. *Dancing with Words: Signing for Hearing Children Literacy*, Bergin & Garvey, 2000.

Laprelle, Lorie, Lynn. *Standing on My Own Two Feet*, Blind Children's Center, 2009.

Laura, Greene, Dicker, Eva B. *Discovering Sign Language*, Gallaudet University Press, 1990.

Ling, Daniel. "Speech and the hearing-impaired child Messing", Lynn S (Editor), Campbell, Ruth (Editor). *Gesture, Speech, and Sign*, Oxford University Press, 1999.

Presley Ike, D'Andrea, Frances Mary, *Assistive Technology for Students who are Blind or visually*

impaired: A Guide to Assessment, American Foundation for the blind, 2009.
Rogow, Sally. *Language, Literacy and Children with Special Needs*, Pippin Publishing 1997.
Swenson, Anna M. *Beginning with Braille: A Balanced Approach to Literacy*, American Foundation for the Blind, 1999.

GEM-254: Global Politics and Media
(Generic Elective)
(w.e.f Admitted Batch 2020-2021)

L T P C
1 0 4 3

Course Description:

Understanding the Global Media and Studying the role of media during various global conflicts. A glance at the cultural politics, media hegemony and debates on freedom of expression.

Course Objectives:

1. Introduction about global communication and the rise of popular media, and how information played its role in crucial developments in the world.
2. Focusing on the impact of globalization on society, economy.
3. To acquire in-depth knowledge of the origin, development, functioning and logic of political systems, of diplomatic, economic and political relations among States, of ways of constructing political decisions, and of relations between political institutions and public opinion.
4. The acquisition of in-depth knowledge of methodologies of analysis of political, institutional and organizational processes of States, of the global system, of state policies
5. The acquisition of multidisciplinary analysis skills through the use of the methodologies of the sciences and disciplines mentioned above and skills of comparative analysis of political, institutional and organizational processes at the state level and at state policy level.

Course Outcomes:

1. Understand the global communication and the rise of popular media, and how information played its role in crucial developments in the world.
2. Discuss the impact of globalization on society and economy.
3. Demonstrate an in-depth knowledge of the origin, development, functioning and logic of political systems, of diplomatic, economic and political relations among States, of ways of

constructing political decisions, and of relations between political institutions and public opinion.

4. Display an in-depth knowledge of methodologies of analysis of political, institutional and organizational processes of States, of the global system, of state policies
5. Acquire multidisciplinary analysis skills through the use of the methodologies of the sciences and disciplines mentioned above and skills of comparative analysis of political, institutional and organizational processes at the state level and at state policy level.

Unit I

8 Hours

Media and international communication: The advent of popular media: a brief overview; propaganda in the inter-war years: Nazi propaganda; radio and international communication; communication debates: NWICO, McBride Commission and UNESCO

Unit II

9 Hours

Media and Globalization: Globalization: barrier-free economy, multinationals and development; technological advances, telecommunication; globalization of TV formats; global networks: information society, network service economy, movement of intangibles

Unit III

8 Hours

Media and the Global Market: Trans-world production chains and BPOs /call centres; media conglomerates and monopolies: Ted Turner/Rupert Murdoch; global and regional integrations: pan-India channels; entertainment: local/ global/hybrid - KBC/Big Boss/others

Unit IV

9 Hours

Global Conflict and Global Media: World Wars and media coverage: the rise of radio-propaganda and persuasion; the Gulf Wars: CNN's satellite transmission, embedded journalism; 9/11 and implications for the media; 26/11 and implications for the media

Unit V

8 Hours

Ideology, Culture and Globalization: Cultural politics: media hegemony and legitimization of media driven global cultures, homogenization, the English language; rise of regional initiatives: Al-Jazeera; hacking: WikiLeaks, media executions; freedom of expression debates

Reference books:

Choudhary, Kameswar (ed) *Globalization, Governance Reforms and Development in India*, Sage, New Delhi.

Kamalipor, Yahya R. *Globalization of Corporate Hegemony*, New York Press.

Monroe, Price. *Media Globalization' Media and Sovereignty*, MIT press, Cambridge, 2002.

Kamalipor, Yahya R and Snow Nancy, *War, Media and Propaganda*, Rowman and Littlefield Publication.

Patnaik, B.N & Imtiaz Hasnain(ed) *Globalization: Language, Culture and Media*, Indian Institute of Advanced Studies, Shimla, 2006.

Singh, Yogendra. *Culture Change in India: Identity and Globalization*, Rawat Publication, New Delhi, 2000.

Thussu, Daya Kishan. *Continuity and Change*, Oxford University Press. 25

Unesco Publication, Communication and Society, Today and Tomorrow “Many Voices One World”.

Yadava, J.S. *Politics of News*, Concept Publishing and Co.

Zelizer Barbie and Allan Stuart, *Journalism after 9/11*, Routledge Publications.

GEM-256: Film Appreciation

(Generic Elective)

| L | T | P | C |
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| 1 | 0 | 4 | 3 |

Course Description:

The course provides an opportunity to read literature and watch movies to explore socio-cultural and literary and theory issues in films and media. It presents theoretical inputs to understand the role of popular culture and explores issues of identity and identity construction critically. It also introduces the necessary technical knowledge needed to understand film making. The course explores the context and content of the new media.

Course Objective:

1. The language of Cinema and an essential tool in film appreciating
2. Overviews the aspect of representation in popular film and media
3. Provide basic technical knowledge to understand a film and media advertising
4. To become an active viewer of cinema, developing one’s own informed perspective through personal engagement with films using analytical tools and techniques.
5. Understand the way that content, form, and contexts work together to create meaning in film.

Course Outcomes:

1. Critically explore how film is a dynamic, multi-faceted medium, and how a work is created and received from a cultural, ideological and theoretical perspective.
2. Understand the myriad of creative and technical choices that construct a work,
3. Understand the nuances of film making and know how each individually impacts a finished film.

4. Identify and use key concepts, models and tools in film criticism.
5. To consider film's position in participatory culture and the shifting convergent media landscape`

Unit I 8 Hours

Theme, story and screenplay; cinematic terms; Semiotics; Cinematography and Editing: time, space, narrative and shot; Set and design, lighting; sound/ music

Unit II

9 Hours

Feature films and short films; documentaries; Introduction to Indian cinema; History of Indian cinema- Dadasaheb Phalkey, Bombay Talkies, mythological; Cubism, Realsim, Neo-realism; other arts and cinema- theatre, painting

Unit III

8 Hours

Importance accorded to song and dance; actors and personality cults; mythological films; formula in cinema; melodrama in Indian cinema

Unit IV

9 Hours

High culture vis-a-vis low culture; 'B' movies; satire; cult; remakes; Japanese Cinema; British Cinema; Chinese/ Korean Cinema; Latin American Cinema; Regional Cinema in India

Unit V

8 Hours

Major turning points and trends in cinema; parallel cinema in India; Language in Indian Cinema- English Bollywood movies; Impact of the multiplex system

Reference books:

Bordwell, David and Thompson, Kristin, *Film Art: An Introduction*, 7th ed. New York: McGraw-Hill Co., 2004.

Kawin, Bruce, *How Movies Work*. Berkeley and Los Angeles: University of California Press, 1992.

Cook, David A., *A History of Narrative Film*, 4th ed. New York: W.W. Norton & Co., 2004.

Goodykoontz, Bill. *Film: "From Watching to Seeing"* (2nd Edition).

GEP-254: Psychology of Peace and Conflict

Resolution
(Generic Elective)

L T P C
1 0 4 3

Course Description:

This course provides an understanding of the psychological roots of aggression and violence in interpersonal, intergroup, and societal context. It familiarizes students with the processes involved in peace building and conflict resolution. The course helps students appreciate the need for developing tolerance and valuing diversity.

Course Objective:

1. To explore the concept of peace and conflict from a psychological perspective
2. To create awareness about the national and international peace building and conflict resolution processes
3. To appreciate the role of psychology in developing tolerance and peace building
4. To understand violence in International arena
5. To understand the methods of peacemaking

Course Outcomes:

after the completion of course, the student would be able to-

1. explain the concept of peace and conflict from a psychological perspective
2. describe the national and international peace building and conflict resolution processes
3. appreciate the role of psychology in developing tolerance and peace building
4. examine violence in International arena
5. summarize the methods of peacemaking

Unit I

8 Hours

Introduction to Peace Psychology – The role of psychology in World War I and II; Role of Psychology in the Cold War; The Post-Cold War Era; Scope of Peace Psychology; Systems of Violence and Peace.

Unit II

9 Hours

Direct Violence – Intimate Violence; Intrastate Violence; Nationalism and War; Genocide and Mass Killing; Weapons of Mass Destruction.

Unit III

8 Hours

Structural Violence – Social Injustice; Children and Structural Violence; Women, Girls and Structural Violence; Understanding Militarism; Globalism and Structural Violence; Human Rights Violations as Structural Violence.

Unit IV

9 Hours

Peacemaking – U.N. Peacekeeping; The Cultural Context of Peacemaking; Conflict Resolution – Theoretical and Practical Issues; Crafting Peace; Introducing Cooperation and Conflict Resolution into schools; Reducing Trauma during ethno-political conflict; Reconciliation in Divided Societies;

Unit V

8 Hours

Peace building – Psychology of Structural Peacebuilding; Psychologies for Liberation; The Social Psychology of Satyagraha; Peacebuilding and Nonviolence-Gandhi’s perspective on power; Peace Psychology for the Twenty-First Century.

Reference books

Christie, D.J., Wagner, R.V. & Winter, D.A. *Peace, Conflict and Violence: Peace Psychology for the 21st Century*. Englewood Cliffs: Prentice-Hall. 2001.

Blumberg, H. H. *Peace Psychology: A Comprehensive Introduction*. Cambridge: Cambridge University Press. 2006.

MacNair, R. M. *Psychology of Peace*. Santa Barbara: ABC. 2011.

Mayton II, D. *Nonviolence and Peace Psychology*. New York: Springer. 2009.

GEP-352: Human Rights
(Generic Elective)

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| L | T | P | C |
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Course Description:

Each and every country had provided several rights to their Citizens and others too. Following are some of the human rights which should be safeguarded/protected by all, in every matter, in any manner. Here one Culprit can be forgiven by Jurisdiction, but Death of any Innocent isn’t acceptable/tolerable in any manner.

Course Objective:

1. To build conceptual understanding about human rights
2. To critically examine key issues and areas in human rights discourses.
3. To engage with social, religious, political and economic ideologies of human rights.
4. To understand the political and religious hegemony of human rights
5. To identify the challenges to human rights

Course Outcomes

after the completion of this course, the student would be able to

1. build conceptual understanding about human rights
2. critically examine key issues and areas in human rights discourses
3. engage with social, religious, political and economic ideologies of human rights.
4. explain the political and religious hegemony of human rights
5. identify the challenges to human rights

Unit I

8 Hours

Understanding Social Inequality: Caste, Gender, Religion, Ethnicity and Class as distinct categories; Relationship among these categories; The impact of LPG (Liberalisation, Privatisation and Globalisation) on workers, peasants, dalits, adivasi and women.

Unit II

9 Hours

Evolution of Human Rights: Various meanings/definitions of human rights; Precursors of 20th Century Human Rights Documents - Magna Carta (1215), the English Bill of Rights (1689), the French Declaration on the Rights of Man and Citizen (1789), and the US Constitution and Bill of Rights (1791). U.N Declarations and Covenants;

Unit III

9 Hours

Human Rights: Human Rights and Citizenship Rights; Human Rights and the Indian Constitution; the Role of the National Human Rights Commission; Human Rights of Marginalized Groups: Dalits, Adivasis, Women, Minorities and Unorganized Workers. Civil liberties and Human Rights movements in India.

Unit IV

8 Hours

Gender: Structures of Patriarchy; Gender, Culture, and History; Economic Development and Women; Women's movements in India; The women's political participation and representation in India. Laws, Institutions and Women's Rights in India. National Commission for Women; Gender justice.

Unit V

8 Hours

Environment: Protection of Environment; Environment and Sustainable Development; Industrial Pollution; Global Warming; Threats to Bio-Diversity; Environmentalist movements.

Reference books

Patel, Sujata et.al , *Gender and Caste: Issues in Contemporary Indian Feminism*, Kali for Women, Delhi.

Menon, Nivedita, *Gender and Politics in India*, Oxford University Press, Delhi.

B.R. Ambedkar, *Castes in India*, Isha Books.

Ekta Singh, *Caste System in India: A Historical Perspective*, Kalpaz Publications.

Shridhar Venkatesh, *History of Caste in India: Evidence of Laws of Manu*, Lowprice Publication.

Geetha, V. *Gender*, Stree Publications, Kolkata.

Baxi, Upendra, *The Future of Human Rights*, Oxford University Press, Delhi.

Gonsalves, Colin, *Kaliyug: The decline of human rights law in the period of Globalization*, Human Rights Law Network, New Delhi.

Agarwal, Anil and Sunita Narain, *Global Warming and Unequal World: A Case of Environmental Colonialism*, Centre for Science and Environment, Delhi.

GHP-352: History of Indian Journalism: Colonial & Post-Colonial Period
(Generic Elective)
(w.e.f Admitted Batch 2020-2021)

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Course Description:

The course aims to enable the student to understand the history of journalism and analyse the Pre-colonial History of written records and modalities of dissemination.

Course objectives:

1. Introduce the evolution of media and history of journalism
2. Impart knowledge about pre-colonial history of print media
3. Explain the rise of print media and the associated theories.
4. Introduce the role of the print media during the freedom movement for propagating nationalism.
5. Facilitate a Practical project on writing skills.

Course Outcomes:

At the end of the course, student should be able to

1. understand the evolution of media and history of journalism
2. gain knowledge about pre-colonial history of print media
3. trace the rise of print media and the associated theories.
4. understand the role of the print media during the freedom movement for propagating nationalism.

5. take up a Practical project on writing skills.

| | |
|--|----------------|
| Unit I Evolution of Media - History of Journalism: Print, Television, New Media | 9 Hours |
| Unit II Pre-colonial History of written records & modalities of dissemination | 8 Hours |
| Unit III Advent of Print media: Imperialist Ideologies | 8 Hours |
| Unit IV Nationalism & Print Culture: Selective study of prominent newspapers: Tribune, Amrita Bazar Patrika, and Hindustan Times | 9 Hours |
| Unit V Writing & Reporting: Field Work | 9 Hours |

References:

Ananda. Prakash, (1986) A History of the Tribune, A Centenary Publication by the Tribune Trust.
Ghosh, Hamendra Prasad, (1952), Newspapers in India, University of Calcutta.
Natrajan. J, (1962) A history of the Press in India, Asian Publishing House, Bombay.
Natrajan.J, (1954), History of Indian Journalism, Vol. –ii of Press Commission Report, New Delhi.

GHP-354: Gender and Education in India
(Generic Elective)
(w.e.f Admitted Batch 2020-2021)

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| L | T | P | C |
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Course Description:

This course introduces the student to the position of women through Indian history and the trends associated with Women history. It aims to understand and examine how education and schooling are deeply ‘gendered’ constructs and experiences. It uses education and schooling as an entry point to examine questions related to state formation, international institutions, public policies, inequality and labour in colonial and contemporary contexts from the lens of gender.

Course Objectives:

1. Enable students to draw upon feminist engagement and critiques of education, schooling and state policies to probe how gendered constructions of knowledge and learner shape educational transaction as expressed in curriculum, textbooks and pedagogy.
2. Help them engage with the historic denial and unequal access of education to girls and women and challenges to this inequality in colonial and independent India.
3. Demonstrate how to examine different national and international policy documents and discourses to take note of how state policies, international institutions, different sections of civil society and the intersecting vectors of gender, class, race, caste and ethnicity shape the policies, initiatives, and programmes for education of girls.
4. Equip students with the skills to analyse formation and experience of schools as gendered spaces that in interaction with other social forces and processes produce masculine and feminine selves with different affective ties with the nation.
5. Creating awareness about different kinds of employment of women in the formal and informal sectors of education are also probed to understand the gendered linkages of education with labor and community mobilization.

Course Outcomes:

On successful completion of this course students should be able to:

1. Explain key concepts related to gender and different feminist perspectives on education;
2. Demonstrate familiarity with key policies, issues and debates around gender and education in contemporary India;
3. Examine gendered nature of school curriculum, textbooks, school processes, classrooms, teacher attitudes and peer conversation.
4. Understand the socio-religious reforms and issues of education related to women
5. Understand the present scenario in India in terms of education and gender

| | |
|--|----------------|
| Unit I Historiographical Trends | 8 Hours |
| Unit II Education in Early and medieval times; Formal & Informal | 9 Hours |
| Unit III Colonial Period: Socio-religious reform women & education for females | 9 Hours |
| Unit IV Contours of Female literacy since 1950 | 8 Hours |
| Unit V Present Scenario: Education as a tool of empowerment | 9 Hours |

References:

Basu, Aparna, (1974), Growth of Education and Political Development in India, 1898-1920.
 Basu, Aparna, and Bharati Ray, (2002), Women Struggle, A History of the All India Women's Conference.
 Kumar, Radha, () A History of Doing
 Sharma, Ram Nath and Rajender Nath Sharma, (1996), History of Education in India, Atlantic Publishers.
 Sharma, Usha, () Women Education in Modern India

VDC-111: Venture Discovery

| | | | |
|----------|----------|----------|----------|
| L | T | P | C |
| 1 | 0 | 2 | 2 |

Course Description:

India as part of its Make in India initiative has been focusing on creating incubation centers within educational institutions, with an aim to generate successful start-ups. These start-ups will become employment creators than employment seekers, which is the need of the hour for our country.

This common course for all the disciplines is a foundation on venture development. It is an experiential course that lets students venture and find out what a business, financial and operating models of a business are. How to design and prototype a solution that meets their customers' needs and generates revenue for the business.

Course Objectives:

- Discover who you are – Values, Skills, and Contribution to Society.
- Gain experience in actually going through the innovation process.
- Conduct field research to test or validate innovation concepts with target customers.
- Understand innovation outcomes: issues around business models, financing for start-ups, intellectual property, technology licensing, corporate ventures, and product line or service extensions.

On successful completion of this course, students will be able to:

| | Learning Outcome | Assessment |
|---|---|-------------------|
| 1 | Understand conceptual framework of the foundation of a venture | A1, A2 |
| 2 | Understand the concept of purpose, mission and value-add service offered by a venture | A3 |
| 3 | Analyze design and positioning of the product | A3 |

| | | |
|---|--|----|
| 4 | Demonstrate prototyping | A3 |
| 5 | Analyze business, revenue and operating models | A3 |

Course outline and indicative content

Unit I (6 sessions)

Personal Values: Defining your personal values, Excite & Excel, Build a Team, Define purpose for a venture. Four stages: Personal Discovery, Solution Discovery, Business Model Discovery, Discovery Integration.

Unit II (6 sessions)

Solution Discovery: Craft and mission statement, Experience design, Gaining user insight, Concept design and positioning, Product line strategy, Ideation & Impact.

Unit III (6 sessions)

Business Model Discovery: Prototyping solutions, Reality Checks, Understand your industry, Types of business models, Define Revenue Models, Define Operating Models

Unit IV (6 sessions)

Discovery Integration: Illustrate business models, Validate business models, Define company impact

Unit V (6 sessions)

Tell a Story: Can you make money, Tell your venture story.

Assessment methods

| Task | Task type | Task mode | Weightage (%) |
|-------------------------------|-----------------------|---------------------------------|---------------|
| A1. Assignments | Individual | Report/Presentation | 20 |
| A2. Case / Project/Assignment | Groups* or Individual | Presentations/Report/Assignment | 40 |
| A3. Project | Individual/Group | Report/Pitch | 40 |

Transferrable and Employability Skills

| | Outcomes | Assessment |
|---|---|------------|
| 1 | Know how to use online learning resources: G-Learn, online journals, etc. | A1 & A2 |
| 2 | Communicate effectively using a range of media | A1 & A2 |

| | | |
|---|---|---------|
| 3 | Apply teamwork and leadership skills | A2 |
| 4 | Find, evaluate, synthesize & use information | A1 & A2 |
| 5 | Analyze real world situation critically | A3 |
| 6 | Reflect on their own professional development | A3 |
| 7 | Demonstrate professionalism & ethical awareness | A2 |
| 8 | Apply multidisciplinary approach to the context | A2 |

Learning and teaching activities

Mixed pedagogy approach is adopted throughout the course. Classroom based face to face teaching, directed study, independent study via G-Learn, case studies, projects and practical activities (individual & group)

Teaching and learning resources

Soft copies of teaching notes/cases etc. will be uploaded onto the G-learn. Wherever necessary, printouts, handouts etc. will be distributed in the class. Prescribed text book will be provided to all. However you should not limit yourself to this book and should explore other sources on your own. You need to read different books and journal papers to master certain relevant concepts to analyze cases and evaluate projects. Some of these reference books given below will be available in our library.

Prescribed Modules:

Access to NU-IDEA online modules will be provided.

Referential text books and journal papers:

Personal Discovery Through Entrepreneurship, Marc H. Meyer and Chaewon Lee, The Institute of Enterprise Growth, LLC Boston, MA.

Suggested journals:

Vikalpa, Indian Institute of Management, Ahmedabad
 Journal of General Management, Mercury House Business Publications, Limited
 Harvard Business Review, Harvard Business School Publishing Co. USA

GHG-391: Project - Phase I

L T P C
1 0 2 2

Course Description:

The project is an integral part of the curriculum. It can take many various forms, but its purpose remains the same. The project is a unique opportunity for the students to carry out some research in

order to devise an innovative solution for a real-world problem. While a project can be challenging, it can also be very rewarding. It plays a vital role in preparing students for the world of work. Its practical applications help hone the students' knowledge and skills.

Course Objectives:

1. Provide experience to the students in an area of interest and familiarize them with the project management methodology
2. Enable them to understand and redefine a given problem/question
3. Equip them with the skills to develop a concept, identify a theoretical framework, and organize their research into a well-structured report/dissertation
4. Help students hone their writing skills and their enhance their ability to communicate their ideas effectively
5. Give students the opportunity to work on a project from ideation to the delivery of the planned outcome

Course Outcomes:

By the end of the project the students will be

1. Better prepared for the working world
2. Consolidate their learning with valuable hands-on experience to help develop them into well-prepared and well-rounded graduates.
3. Apply their knowledge and skills to explore/research/come up with innovative solutions for real-life problems, all while gaining valuable insights into the demands and responsibilities of the working world.
4. Demonstrate their writing skills which is a key soft skill in any industry
5. Understand the implications of their approach to a problem/question and the consequences and outcomes of the same in a 'safe learning environment'

Unit 1: Select a topic - choosing a topic, narrowing your focus, and developing a thesis statement or research question.

Unit 2: Do a literature review - identifying useful resources and organizing your results; some examples for using article databases effectively.

Unit 3: Conduct your research (for those students required to do so) - creating surveys, finding tests, designing studies, etc.

Unit 4: The report - Writing & Citing - resources for writing the paper, citing your sources, and avoiding plagiarism.

Unit 5: Present your results - create effective visual aids and deliver a professional presentation.

Reference books:

1. The Craft of Research, Fourth Edition (Chicago Guides to Writing, Editing, and Publishing)

- 4th Edition, by Wayne C. Booth (Author), Gregory G. Colomb (Author), Joseph M. Williams (Author), Joseph Bizup (Author), William T. FitzGerald (Author)
2. "They Say / I Say": The Moves That Matter in Academic Writing, with 2016 MLA Update (Third Edition) by Gerald Graff (Author), Cathy Birkenstein (Author)
 3. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 4th Edition, by John W. Creswell (Author)
 4. Publication Manual of the American Psychological Association 6th Edition by American Psychological Association (Author)
 5. How To Prepare A Dissertation Proposal: Suggestions for Students in Education & the Social and Behavioral Sciences by David Krathwohl (Author)
 6. The Dissertation Journey: A Practical and Comprehensive Guide to Planning, Writing, and Defending Your Dissertation 2nd Edition by Carol M. Roberts (Author)
 7. Writing Your Dissertation in Fifteen Minutes a Day: A Guide to Starting, Revising, and Finishing Your Doctoral Thesis 1st Edition by Joan Bolker (Author)
 8. How to Write a Lot: A Practical Guide to Productive Academic Writing (Lifetools: Books for the General Public) 1st Edition by Paul J. Silvia (Author)
 9. Dissertations And Theses from Start to Finish: Psychology And Related Fields 2nd Edition by John D. Cone (Author), Sharon L. Foster (Author)

GHG-392: Project based on one of the core subjects - Phase II

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Course Description:

The project is an integral part of the curriculum. It can take many various forms, but its purpose remains the same. The project is a unique opportunity for the students to carry out some research in order to devise an innovative solution for a real-world problem. While a project can be challenging, it can also be very rewarding. It plays a vital role in preparing students for the world of work. Its practical applications help hone the students' knowledge and skills.

Course Objectives:

1. Provide experience to the students in an area of interest and familiarize them with the project management methodology
2. Enable them to understand and redefine a given problem/question
3. Equip them with the skills to develop a concept, identify a theoretical framework, and organize their research into a well-structured report/dissertation
4. Help students hone their writing skills and their enhance their ability to communicate their ideas effectively
5. Give students the opportunity to work on a project from ideation to the delivery of the planned outcome

Course Outcomes:

By the end of the project the students will be

1. Better prepared for the working world
2. Consolidate their learning with valuable hands-on experience to help develop them into well-prepared and well-rounded graduates.
3. Apply their knowledge and skills to explore/research/come up with innovative solutions for real-life problems, all while gaining valuable insights into the demands and responsibilities of the working world.
4. Demonstrate their writing skills which is a key soft skill in any industry
5. Understand the implications of their approach to a problem/question and the consequences and outcomes of the same in a 'safe learning environment'

Unit 1: Select a topic - choosing a topic, narrowing your focus, and developing a thesis statement or research question.

Unit 2: Do a literature review - identifying useful resources and organizing your results; some examples for using article databases effectively.

Unit 3: Conduct your research (for those students required to do so) - creating surveys, finding tests, designing studies, etc.

Unit 4: The report - Writing & Citing - resources for writing the paper, citing your sources, and avoiding plagiarism.

Unit 5: Present your results - create effective visual aids and deliver a professional presentation.

Reference books:

1. The Craft of Research, Fourth Edition (Chicago Guides to Writing, Editing, and Publishing) 4th Edition, by Wayne C. Booth (Author), Gregory G. Colomb (Author), Joseph M. Williams (Author), Joseph Bizup (Author), William T. FitzGerald (Author)
2. "They Say / I Say": The Moves That Matter in Academic Writing, with 2016 MLA Update (Third Edition) by Gerald Graff (Author), Cathy Birkenstein (Author)
3. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 4th Edition, by John W. Creswell (Author)
4. Publication Manual of the American Psychological Association 6th Edition by American Psychological Association (Author)
5. How To Prepare A Dissertation Proposal: Suggestions for Students in Education & the Social and Behavioral Sciences by David Krathwohl (Author)
6. The Dissertation Journey: A Practical and Comprehensive Guide to Planning, Writing, and Defending Your Dissertation 2nd Edition by Carol M. Roberts (Author)
7. Writing Your Dissertation in Fifteen Minutes a Day: A Guide to Starting, Revising, and Finishing Your Doctoral Thesis 1st Edition by Joan Bolker (Author)
8. How to Write a Lot: A Practical Guide to Productive Academic Writing (Lifetools: Books

- for the General Public) 1st Edition by Paul J. Silvia (Author)
9. Dissertations And Theses from Start to Finish: Psychology And Related Fields 2nd Edition by John D. Cone (Author), Sharon L. Foster (Author)