INTERNAL QUALITY ASSURANCE CELL (IQAC)

I.M.Phil., PROGRAMME PROFILE- Allotment of Hours &Credits
(With effect from 2020-2021 batch onwards)

I-Semester	II-Semester	Credits
Paper-I(6 hrs)	-	5
Paper-II(6 hrs)	-	5
Paper-III(Special area study paper)	-	5
Paper-IV(Research and Publication Ethics) (2 hrs)	-	2
-	Dissertation & Viva voce	13
• Paper Presentation(minimum one)& • Publication of articles in journals(minimum one) are mandatory for submission of Dissertation		30

II.ONLINE TEACHING

` It is proposed to conduct online teaching for all the classes through Microsoft Teams till the normal functioning of the Colleges for the academic year 2020- 2021. Tentative commencement date is 1st August.

III. INTRODUCTION OF SKILL ORIENTATION AND GOVT OF INDIA CERTIFIED COURSES

A. Skill Orientation Programme (only for interested students) - Extra Credit Provision
Four days courses offered by MSME/GOI as Skill Orientation Programme with maximum of 1 credit under extra credit earning provision.

B. Experiential Learning (Mandatory) - Discipline/Course Based
- Two days courses offered by MSME/GOI as Experiential Learning category have component IV can be incorporated in our courses.
- The department can be offered minimum one course for II to VI semesters.

Courses offered by MSME/GOI

Department	Semester	Name of the Course
Tamil		• Beautician Course Training • Social Media Marketing Training
English		• Effective Communication
Business Administration	II & VI	• Social Media Marketing Training • Data Analytics Certification • Business Analytics Certification
Commerce		• GST Practitioner Training

Mathematics		• Statistical Process Control • Applied Statistics Certification • Content Writing (Blogs, Website & Profiles) • Data Science Certification
Physics		• Solar Energy Training
Chemistry		• Organic Farming Training (or) • Solar Energy Training
Bio- Chemistry		• Organic Farming Training
Computer Science		• Data Science Certification • Robotics Process Automation
Psychology		• Applied Statistics Certification • Content Writing (Blogs, Website & Profiles) • Stress Management

IV.PART IV-VALUE EDUCATION (UG)

Seme ster	Part	Category	Course code	Course Title	Contact Hrs	Credit
I	IV	Value Education	UGEV101	Values In Life	2	1
			UGEV104	Globalization and Values In Family Life	2	1
			UGEV105	Family Life Education	2	1
III	IV `	Value Education	UESV301	Pollution and Its Management	2	1
			UESV304	Biodiversity	2	1
			UESV305	Environmental Issues And Human Health	2	1
			UESV306	Natural Resources and Conservation	2	1
			UESV307	Consumer Protection	2	1
			UESV308	Awareness On Anticorruption	2	1
			UESV309	Human Rights	2	1
			UESV310	Environmental Science	2	1
			UESV311	Fundamental Rights In Indian Constitution	2	1
V	IV	Value Education	UWSV501	Women and Education	2	1
			UWSV502	Women's Rights	2	1
			UWSV503	Domestic Violence Against Women	2	1
			UWSV504	Women and Health	2	1
			UWSV505	Cyber Security	2	1

ENVIRONMENTAL SCIENCE
UESV310

Semester   : III   **Credit   : 1**
Category   : Value Education   **Hours/Week: 2**
Class &Major: II UG   **Total Hours : 26**

Objectives
To enable the students
- Understand the environment.
- Compare environmental pollution.
- Apply the knowledge in understanding various environmental issues and problems**.**

Learning Outcomes
On completion of the course, the student will be able to
- Understands the social issues and the environment
- Acquires the knowledge of ecosystem and biodiversity.
- Applies the knowledge to control the air pollution.

UNIT - I ECOSYSTEM AND BIODIVERSITY   8 Hrs
Ecosystem - Structure and function of an Ecosystem. Producers - consumers, and decomposers-Energy flow in the Ecosystem-Food chains food webs and Ecological pyramids-Introduction – Types -Characteristic features-Structure and function of forest, Grassland-Desert and aquatic (fresh water, esturine and marine) ecosystems.
Biodiversity–Definition - Genetic species and ecosystem diversity - Value of biodiversity - consumptive use - productive use Social, Ethical, Aesthetic and option values - Hotspots of biodiversity-Threats to biodiversity, habitat loss, poaching of wildlife, human wildlife conflicts.

UNIT - II AIR POLLUTION   9 Hrs
Definition and Classification -Chemical and Photochemical reaction in different layers of atmosphere -Causes - Sources - Effects and control measures of air pollutants - Mechanism and effects of air pollution phenomenon – Global Warming - Ozone Depletion - Acid Rain - Sulfurous Smog and Photochemical Smog.

UNIT - III SOCIAL ISSUES AND THE ENVIRONMENT   9 Hrs
Human population growth -Impacts on environment -Human health and welfare - Resettlement and rehabilitation of projects affected persons - Case studies - Disaster management: floods – earthquake - cyclone and landslides - Environmental movements: Chipko - Silent Valley - Bishnois of Rajasthan - Environmental ethics : Role of Indian and other religions and cultures in environmental conservation -Environmental communication and public awareness, case studies(e.g. CNG Vehicles in Delhi)

Text Books
- De ,A. K. (2010). *Environmental chemistry.* New age international (P) Ltd. (7th ed.,) New Delhi.
- Raghavan Nambiar,K. (2010). *Text Book of Environmental Studies. (2nd* ed.,). Scitech Publications India Pvt Ltd. India.
- Sodhi,G. S.(2000). *Fundamental concepts of environmental chemistry.* (1st ed.,). Alpha Science International Ltd. India.

Reference Books
- Sharma, B.K. (2007). *Environmental chemistry.* Krishna Prakashan Media (P) Ltd., Meerut.
- Dara, S.S.& Mishra, D.D. (2012) *A text book of environmental chemistry and pollution control.* Shultan Chand and Company Ltd.(5th ed.,). New Delhi.
- Richard,T.Wright. (2008). *Environmental Science: Toward a Sustainable Future.* (10th ed.,). Prentice Hall.

E-Resources
- https://www.youtube.com/watch?v=QBmVwL1KCAM
- https://www.unesco.pl/fileadmin/user_upload/pdf/BIODIVERSITY_FACTSHEET.pdf
- https://www.basingstoke.gov.uk/content/page/26744/Air%20pollution%20-%20what%20it%20means%20for%20your%20health.pdf
- https://www.slideshare.net/tanvipotluri/role-of-it-in-environment-human-health

FUNDAMENTAL RIGHTS IN INDIAN CONSTITUTION
UESV311

Semester : I	**Credits** : 1
Category : Value Education	**Hours/Week : 2**
Class &Major : I UG	**Total Hours : 26**

Objectives
To enable the Students
- Understand and realize the nature, scope and importance of supreme law of the land.
- Analyze the role of state in Constitutional Governance and the recent development in all areas.

Learning Outcomes
On Completion of the course, the students will be able to

- Learner will gain knowledge about the basic six categories of rights.
- Understand the Fundamental Rights
- Follow and apply the rights in different field of activities

PREAMBLE:

- We, the people of India, having solemnly resolved to constitute India into a Sovereign socialist secular democratic republic and to secure to all its citizens. Justice, social, economic and political Liberty of thought, expression, belief, faith and worship Equality of status and of opportunity, and to promote among them all,
- Fraternity assuring the dignity of the individual and the unity and integrity of the Nation. In our constituent assembly this twenty-sixth day of November,1949, do hereby adopt enact and give to ourselves this constitution.

UNIT - I INTRODUCTION   **9 Hrs**

Constitutional Law – Constitutionalism - Salient Features of the Constitution of India - Theory of Basic Structure - Nature of the Indian Constitution – Federal - Unitary - Quasi-federal-Freedom of speech- Freedom of expression- Freedom of assembly without arms- Citizenship During the Commencement of the Constitution- the Citizenship Act 1955- Various enactments by Parliament.

UNIT - II FUNDAMENTAL RIGHTS   **8 Hrs**

Equality before Law - Non Discrimination - Reasonable Classification - Non-Arbitrarines - Protective Discrimination - Reservations in Appointments and Promotions- Abolition of Untouchability - Abolition of Titles - They remind Indian Citizens of their duty towards their society-fellow citizens and the nation- Value and preserve the rich heritage of the country's composite culture
.

UNIT- III RIGHT TO FREEDOM-I (ARTICLES14 -18)   **9 Hrs**

Freedom of speech and expression-Freedom to assemble peaceably and without arms - Freedom to form association or unions - Freedom to move freely throughout the territory of India -.Freedom to reside and settle in any part of the territory of India - On grounds of religion- race caste- sex or place of birth-Abolition of all titles except military and academic.

Text Books
- Mahendra, P. S .& Shukla's,V. N. (2008). *Constitution of India.* Eastern Book Co. (11th ed.,).
- Seervai, H.M. (1983). *Constitutional Law of India: a critical commentary*. Tripathi Publication.
- Jain, Indian, M.P.(2018). *Constitutional Law*. Lexi Nexis Publication. (8th ed.,).
- Basu.D.D. (2011). *Shorter to the Constitution of India*. Lexi Nexis Publication. (1st ed.,).

Reference Books
- Lakshminath, A. (2002). *Basic Structure and Constitutional Amendments (Limitation and justiciability)*. Deep & Deep Publications.
- Granville Austin. (1999). *The Indian Constitution Corner Stone of a Nation*. Oxford.
- Lahoti Justice, R.C. (2004). *The spirit and backbone of Constitution of India.*Eastern. Book Company.
E-Resources
- https://en.wikipedia.org/wiki/Fundamental_Rights,_Directive_Principles_and_Fundamental_Duties_of_India
- https://www.constitution.org/cons/india/p03.html

Evaluation Components of CIA

1. Case Study   - 20 Marks
2. Moot Court Exercise   - 20 Marks
3. Case Law Analysis   - 20 Marks
4. Group Discussion   - 20 Marks
5. Assignment   - 20 Marks

CYBER SECURITY
UWSV505

Semester	**: III**	**Credits**	**: 1**
Class	**: II UG**	**Hours/Week**	**: 2**
Category	**: VALUE EDUCATION**	**Total Hours**	**: 26**

Objectives
To enable the students
- Implement Cyber security Best Practices and Risk Management.
- Integrate Network Monitoring and Present Real-Time Solutions.
- Impact Cyber security Risk in an Ethical, Social, and Professional Manner.

Learning Outcomes
On Completion of the course, the students will be able to
- Learner will gain knowledge about Security Policies.
- Understand the principles of Web Security.
- Able to examine Secure Software Attributes.
- Understand key terms and concepts in Cyber law, Intellectual property, Cybercrimes, Trademarks and Domain theft.

UNIT – I   **9 Hrs**

Cyber Security - Applications of Cyber Security - Cyber Attacks and their Classification. Cyber security in Finance - Safe Browsing - Tips for buying online.

UNIT – II   **8 Hrs**

Cybercrime - Classification of Cybercrimes - Reasons of Cybercrimes - Kinds of Cybercrime- Data Frauds.

UNIT – III   **9 Hrs**

Web Security - E-mail Security - Mobile Device Security - Social Media Security. Malware - Type of Malware - Antivirus - Securing computer using free antivirus.

Text Book

- Jeetendra Pande. *Introduction to Cyber Security*

E- Resources

- https://heimdalsecurity.com/pdf/cyber_security_for_beginners_ebook.pdf
- http://larose.staff.ub.ac.id/files/2011/12/Cyber-Criminology-Exploring-Internet-Crimes-and-Criminal-Behavior.pdf
- http://www.uou.ac.in/sites/default/files/slm/FCS.pdf
- https://cyber-cops.com/book_detail

Evaluation Components of CIA

1.Assignment   - 20 Marks
2.Case Study   - 20 Marks
3.Group Discussion   - 20 Marks
4.Poster Presentation   - 20 Marks
5.Peer Evaluation   - 20 Marks

V.PART I – Hindi (I – IV SEMESTER) - COURSE PROFILE FOR UG

Semester	Part	Category	Course Code	Course Title	Contact Week	Credit	
						Min	Max
I	Part-I	Language	UHIL 102	HINDI-I	4	2	2
II	Part-I	Language	UHIL 202	HINDI-II	4	2	2
III	Part-I	Language	UHIL 302	HINDI-III	4	2	2
IV	Part-I	Language	UHIL 402	HINDI-IV	4	2	2

HINDI-I
UHIL102

Semester	**:I**	**Credit** **: 2**
Category	**: Language**	**Hours/week** **: 4**
Class & major: I-UG		**Total Hours** **: 52**

Objectives

- Students will be guided to know about the grammatical rules of Hindi and to develop use of language without errors.
- Students are also guided to practice letter writing and Business correspondence.
- Improve the knowledge of Prose.

UNIT-I   Prose Lessons   **10 Hrs**

1. Sabyata Ka rahasya – Premchand (सभ्यताकारहस्य–प्रेमचंद)

2. Mitrata – Ramchandra Sukla (मित्रता – रामचंद्रशुक्ल)

3. Sadhachar ka Thabiz- Harishankar Parsai (सदाचारकाताबीज)

UNIT-II Prose Lessons   **10 Hrs**

1. Gaura Gaai – Mahadevi Verma (गौरागाय- महादेवीवर्मा)

2. Devatavon Ke Anchal Mein - Agney (देवतावोंकेअंचलमें–अज्ञेय)

3. Gapshap - Naamvar Singh (गपशप–नामवरसिंह)

UNIT-III   Applied Grammar   **10 Hrs**
1. Gender Changing
2. Number Changing
3. Tense

UNIT-IV   Applied Grammar   **11 Hrs**
1. Correct the Sentences
2. Active voice and Passive Voice
3. Cases

UNIT-V Letter Writing   **11 Hrs**

1. Personal Letters (Letter to Parents, Letter to Friends)
2. Business Letters (Enquiry, Order, Complaint Letters)
3. Technical Terminology (50 Words)

References
1. Gadyakosh.org
2. *Shastry and Apte. Hindi grammar. D.B. Hindi Pracharsabha. Chennai.*

HINDI-II
UHIL202

Semester   : **II**

Category   : **Language**

Class &Major : I-UG

Credit   : **2**

Hours/week : 4

Total Hours : 52

Objectives
- The aim of this course is to introduce non detailed text through one act play and short stories.
- To cultivate Moral values through non-details.
- To develop translation skill in a student.

UNIT - I ONE ACT PLAY   **10 Hrs**

1. Suuki Dali- Upendranath Ashk (सूखीडाली – उपेंद्रनाथअश्क)

2. Aurangajeb ki aakhiri raat – Dr, Ramkumar Verma (औरंगजेबकीआखिरीरात- रामकुमारवर्मा)

UNIT - II ONE ACT PLAY   **10 Hrs**

1. Beemaar ka ilaaj – Uday Shankar Bhat (बीमारकाइलाज–उदयशंकरभट्ट)

2. Ande ke Chilke – Mohan Rakesh (अंडेकेछिलके- मोहनराकेश)

UNIT- III SHORT STORY   **10 Hrs**

1. Idhgah – Premchand   (ईद्गाह- प्रेमचंद)

2. Prayachit _ BhagavaticharanVarma(प्रायश्चित- भगवतीचरणवर्मा)

UNIT- IV SHORT STORY   **11 Hrs**

1. Pita- Gyanranjan   (पिता–ज्ञानरंजन)

2. Yog Deeksha – Raji Seth   (योगदीक्षा- राजीसेठ)

UNIT- V TRANSLATION PRACTICE   **11 Hrs**

Passages from English to Hindi (10 Passages)

References
- kahanikosh.org
- ekankikosh.org
- Anuvad Abhyas Part- III, T.Nagar, Chennai-17, D.B. Hindi PracharSabha.

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HINDI-III

UHIL302

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Semester : III	**Credit : 2**
Category :Language	**Hours/week : 4**
Class & major: II-UG	**Total Hours : 52**

Objectives

- The aim of this course is to introduce Olden poetry and Trends.
- Introduction is also given to History of Hindi Literature .
- To educate about Ancient and Medieval Literature.

UNIT - I OLD POETRY   **10 Hrs**

1. Kabir – first 10 dohas only
2. Surdas – Pad only (First Three only)
3. Rahim – 1-10 Dohas only

UNIT - II OLD POETRY   **10 Hrs**

1. Meera Bai –Pad 9 first Three only)
2. Bihari – 1-10 Dohas
3. Thiruvaluuvar – Arthkhand only

UNIT- III HISTORY OF HINDI LITERATURE   **10 Hrs**

1. Kaalvi bhajan
2. Aadikaleen Sahitya Ki visheshatayen
3. Aadikaalen kavi

UNIT- IV   HISTORY OF HINDI LITERATURE   **11 Hrs**

1. Bhakti kaaleen Sahitya Ki visheshatayen
2. Sagun Bhakti aur Nirgun Bhakti
3. Bhakikaalen Kavi

UNIT- V HISTORY OF HINDI LITERATURE   **11 Hrs**

1. Reetikaalen Sahitya Ki Paristhithi
2. Reetikaalen Sahitya Ki visheshatayen
3. Reetikaleen kavi

Text Book

- Poetry Selections 2001. University of Madras. Chennai. University Publications

References

- Rajnath Sharma. & Vinod Pustak Mandir. *Hindi Sahitya ka ithihas*. Agra.
- Nagendra*, Hindi Sahitya kaithihas.*National Publishing House. New Delhi.

HINDI-IV
UHIL402

Semester : III	**Credit : 2**
Category : Language	**Hours/week : 4**
Class & Major: II-UG	**Total Hours : 52**

Objectives
To Enable the Students

- Introduce modern poetry and modern Hindi Literature.
- Understand the modern Hindi Literature and writing skills.

UNIT-I MODERN POETRY   10 Hrs

1. Apana Sansaar- MythilisharanGupt
2. Asha- Jai Shankar Prasad
3. Mitt iki Mahima- Shiv MangalSuman

UNIT –II MODERN POETRY   10 Hrs

1. Sneh Sapat- Bavani Prasad Mishra
2. Aham- Naresh Mehta
3. Nimna madya varg- Prabhakar Machave

UNIT-III HISTORY OF HINDI LITERATURE   10 Hrs

1. Bharatendu yugin Sahitya ki Visheshatayen
2. Diwedi Yugin Sahitya ki Visheshatayen
3. Chayavaadi aur Pragativaadi kavita

UNIT –IVHISTORY OF HINDI LITERATURE   11 Hrs

1. Nayi Kavita ki visheshatayen
2. Hindi Upanya Sahitya ke Udbhav aur Vikas
3. Hindi Kahani Sahitya ke Udbhav aur Vikas

UNIT-V HISTORY OF HINDI LITERATURE   11 Hrs

1. Hindi Natak Sahitya KeUdbhav aur Vikas
2. Hindi ekanki Sahitya ke Udbhavaur Vikas
3. Pramukh sahityakar-Premchand, Prasad, Nirala, Mahadevi Verma, Mythili sharan gupt,Nagarjun, Yashpal

Text Book:

- Poetry Selections. (2001). University of Madras. University Publications. Chennai.

Reference Books:
- Rajnath Sharma & Vinod PustakMandir. Hindi Sahityakaithihas. Agra.
- Nagendra, Hindi Sahityakaithihas. National Publishing House. New Delhi.

V.   **PART I – French (I – IV SEMESTER)**

COURSE PROFILE FOR UG

Semester	Part	Category	Course Code	Course Title	Contact Hrs/ week	Credit
I	I	Language	UFRL102	FRENCH - I	4	2
II	I	Language	UFRL202	FRENCH - II	4	2
III	I	Language	UFRL302	FRENCH - III	4	2
IV	I	Language	UFRL402	FRENCH - IV	4	2

FRENCH-I
UFRL-102

Semester : I   **Credit** : 2

Category : Language   **Hours/Week** : 4

Class&Major: I-UG   **Total Hours** : 52

Objective

- To enable the students to get acquainted with the basic language skills in French Language: Compréhension et Expression Orales et Écrites
- To introduce to the students basic elements of French Culture and Civilization

UNIT-I   **10Hrs**

Saluer, Entrer en Contact avec quelqu'un, se présenter, s'excuser.

UNIT-II   **10Hrs**

Demander de se présenter, présenter quelqu'un

UNIT-III   **10Hrs**

Exprimer ses gouts, échanger sur ses projets

UNIT-IV   **11Hrs**

Demander à quelqu'un de faire quelque chose

UNIT-V   **11Hrs**

Demander poliment, parler d'actions passées.

Text Book

- **Latitudes 1** by Régine Mérieux & Yves Loiseau IDIER.
  Modules 1 & 2 Units 1, 2, 3, 4

FRENCH-II
UFRL202

Semester : I   **Credit** : 2

Category : Language   **Hours/Week**: 4

Class& Major: I-UG   **Total Hours** : 52

Objectives

- To enable the students to get acquainted with the basic language skills in French Language: Compréhension et Expression Orales et Écrites
- To introduce to the students basic elements of French Culture and Civilization

UNIT-I   **10Hrs**

Proposer, accepter, refuser une invitation. Indiquer la date. Prendre et fixer un rendez-vous. Demander et indiquer l'heure.

UNIT-II   **10Hrs**

Exprimer son point de vue positif et négatif, s'informer sur le prix.

UNIT-III   **10Hrs**

 S'informer sur la quantité, exprimer la quantité.

UNIT-IV   **11Hrs**

Demander et indiquer une direction, localiser (près de, en face de…)

UNIT-V   **11Hrs**

Exprimer l'obligation ou l'interdit, conseiller
Text Book

- **Latitudes 1**by Régine Mérieux & Yves Loiseau Edition.

FRENCH-III
UFRL-302

Semester   **:III**   **Credit**   **: 2**
Category   **: Language**   **Hours/Week : 4**
Class& Major: II-UG   **Total Hours : 52**

Objectives

- To enable the students to get acquainted with the basic language skills in French Language: Compréhension et Expression Orales et Écrites
- To introduce to the students basic elements of French Culture and Civilization

UNIT-I   **10Hrs**

Décrire un lieu, situer, se situer dans le temps.

UNIT-II   **10Hrs**

Raconter, décrire les étapes d'une action, exprimer l'intensité et la quantité.

UNIT-III   **10Hrs**

 Interroger, décrire quelqu'un, comparer.

UNIT-IV   **11Hrs**

 Exprimer l'accord ou le désaccord, se situer dans le temps.

UNIT-V   **11Hrs**

 Parler de l''avenir, exprimer des souhaits, décrire quelqu'un.

Text Book

- **Latitudes 1**by Régine Mérieux & Yves LoiseauEdition DIDIER. Modules 3 & 4 Units 9, 10, 11, 12

FRENCH-IV
UFRL402

Semester :IV	**Credit** : 2
Category : Language	**Hours/Week:** 4
Class& Major: II-UG	**Total Hours : 52**

Objectives

- To enable the students to get acquainted with the basic language skills in French Language: Compréhension et Expression Orales et Écrites
- To introduce to the students basic elements of French Culture and Civilization

UNIT-I **10Hrs**

Exprimer sa certitude et son incertitude, exprimer son approbation et son indifférence.

UNIT-II **10Hrs**

Exprimer et demander un point de vue.

UNIT-III **10Hrs**

Exprimer son intension de faire quelque chose (1), justifier un choix.

UNIT-IV **11Hrs**

Exprimer son intension de faire quelque chose (2), exprimer la restriction.

UNIT-V **11Hrs**

Exprimer le fait d'aimer, de préférer, comparer, exprimer sa joie et sa tristesse.

Text Book

Latitudes 2 by Régine Mérieux, Emmanuel Lainé & Yves Loiseau

Edition DIDIER. Modules 1 & 2 Units 1, 2, 3, 4

III& IV EVALUATION COMPONENTS OF CIA

Semester	Category	Course Code	Course Title	Class	Component -III	Component -IV
I	Language	UFRL102	French-I	I-UG	Assignment	Quiz
II	Language	UFRL202	French-II	I-UG	Assignment	Quiz
III	Language	UFRL302	French-III	II-UG	Assignment	Quiz
IV	Language	UFRL402	French-IV	II-UG	Assignment	Quiz

VII.   RESEARCH METHODOLOGY

Semester : III	**Credit : 4**
Category : Core course	**Hours/Week: 5**
Class &Major: M.Sc/M.A degree	**Total Hours: 65**

Objectives
To enable the students
- Enhance the knowledge on research and its methodologies.
- Familiarize writing research report and thesis.

Learning Outcomes
On Completion of the course, the students will be able to
- Formulate research problems
- Draft research reports

UNIT-I INTRODUCTION TO RESEARCH METHODOLOGY   07 Hrs

Meaning of research; objective of research; motivation in research; types of research-Descriptive vs. Analytical, Applied vs. Fundamental, Quantitative vs. Qualitative, Conceptual vs. Empirical- research approaches; significance of research, research methods versus methodology; Research and scientific methods; Importance of knowing how research is done; Research process; Criteria for good research.

UNIT-II RESEARCH PROBLEM AND RESEARCH DESIGN   15 Hrs

Research problem: Selecting research problem; necessity of defining a problem; techniques of defining problem; formulation of research problem, objectives of research problem. Meaning of research design; need for research design; important concept related to research design; different research designs; basic principles of experimental design; important experimental design.

UNIT-III SAMPLING DESIGN, DATA COLLECTION AND ANALYSIS   18 Hrs

Census and sample surveys, Characteristics of good sample design Different types of sample designs, Techniques of selecting a random sample-Accepts of method validation, observation and collection of data, methods of data collection, sampling methods, data processing and analysis strategies and tools, data analysis with statically package (Sigma STAT,SPSS for student t-test, ANOVA, etc.), hypothesis testing.

UNIT-IV INTERPRETAION, REPORT WRITING, RESEARCH ETHICS AND IPR   15 Hrs

Interpretation and report writing; Meaning of interpretation; techniques of interpretation; precautions in interpretation; significance of report writing, layout of research report, types of reports; Presentation of research work-oral, poster and writing research paper; Precautions for writing research report, conclusion. Ethics-ethical issues, related to research, IPR-Intellectual Property Rights in Research and Development-Patents and Patent Laws: Objectives of the patent system - Basic, principles and general requirements of patent law.

Text Books

- Kothari, C. R. (1980). *Research Methodology: Research and techniques*, New Delhi: New Age International Publishers.
- Carlos, C.M. (2000) *Intellectual property rights. The WTO and developing countries: the TRIPS agreement and policy options.* Zed Books. New York.
- Beier F.K, Crespi R.S and Straus T. *Biotechnology and Patent protection.* Oxford and IBH Publishing Co. New Delhi.
- Darren George and Paul Mallery – *SPSS for Windows.* Pearson Education.

References

- Singh, Y. K. (2006). Fundamental of Research Methodology and Statistics. New Delhi. New International (P) Limited. Publishers.
- Wallinman,N. (2006). Your Research Project: A step-by-step guide for the first-time researcher. London: Sage Publications.
- Senthil Kumar Sadasivam and Mohammed Jaabir M. S. (2008). IPR. Bio safety and Biotechnology Management. Jasen Publications. India.

- Wilkilson , T.S. & Bhandarkar . P.L., (2000). Methodology and Techniques of Social Research. Mumbai. Himalaya Publishing House.

E-Resources
- http:// www.ptt.ed/-super7/430114401/4391.ptt/.
- https://www.heacademy.ac.uk/system/files/msor.3.ls.pdf
- 164.100.133.129.81/econtent/uploads/research-methods.pdf

அலகு– 5 ஆய்வேடு உருவாக்கம்   10மணி

ஆய்வுப் பொருள் விளக்கம் - ஆய்வுத் தலைப்பு விளக்கம் - ஆய்வு நெறிவிளக்கம் - சான்றாதாரங்கள் - இயல் பகுப்பு – விரித்தெழுதல் - ஆய்வுநடை– அடிக்குறிப்புகள் - கண்டுபிடிப்புகள் - தொகுப்புரை – ஆய்வடங்கல் தயாரிப்பு - சுருக்கவிளக்கம் - பின்னிணைப்பு

பாடநூல்கள்

1. கோத்தாரி, C.R (1980). *ஆராய்ச்சி நெறிமுறைகள், ஆராய்ச்சி நுட்பங்கள்.* புதுதில்லி.

2. கார்லஸ், C.M. (2000). *அறிவுசார் சொத்துரிமைகள்* மற்றும் வளர்ந்துவரும் நாடுகள் பயண ஒப்பந்தம் மற்றும் கொள்கை விண்ணப்பங்கள் நியூயார்க்.

3. பாலசுப்ரமணியன், கு.வெ.,(2002). *ஆராய்ச்சி நெறிமுறைகள்.* உமாபதிப்பகம். தஞ்சை.

பார்வை நூல்கள்

1. சிங்,Y.K. *ஆராய்ச்சி நெறிமுறையின் அடிப்படைகள் மற்றும் புள்ளியியல்.* புதுதில்லி.

2. மு.பொன்னுசாமி. (1996). *அறிவியல் அணுகு முறையில் ஆராய்ச்சியியல்.* இந்து பதிப்பகம். கோயம்புத்தூர்.

II- M.A ENGLISH

UNIT-V DOCUMENTATION & THEORIES   10 Hrs

Documentation: Format of the Thesis-Mechanics of Writing-Parenthetical Documentation-Working Bibliography, MLA style. Review of related literature its implications at various stages of research. (Formulation of research problem, hypothesis, interpretation and discussion of results). Major findings, Conclusions and suggestions. Citation of references and Bibliography. Theories and its background and Recent trends in Literature.

Text Books

- Gibaldi, Joseph. (2009). *MLA Handbook for Writers of Research Papers*. Modern Language Association of America.
- Fitzpatrick, Kathleen. (2016). *MLA Handbook*. The Modern Language Association of America.

II- M.COM

UNIT-V TOOLS FOR ANALYSIS   10 Hrs

Statistical Tools – Descriptive statistics – Mean, Median Mode and Standard Deviation. Chi – square , T Test , ANOVA (one way), correlation, simple regression (Simple problems)

Text books

* Pannerselvam, R. *Research Methodology.(* 2004). Prentice Hall of India. New Delhi.

II-M.Sc., CHEMISTRY

UNIT-V COMPUTATIONAL METHODS   **10 Hrs**

Applications of computer packages – Origin, chemdraw, chemsketch, end note and crossref. Introdution of computational chemistry-Ab initio methods – Density functional methods – semi empirical and empirical methods

Text Books

* Darren George and Paul Mallery. (2003). SPSS for Windows. Pearson Education.

Reference Books

* Senthil Kumar Sadasivam and Mohammed Jaabir M. S. (2008).IPR. Biosafety and Biotechnology Management. Jasen Publications. India.

II-M.sc., MATHEMATICS

UNIT-5 INTRODUCTION and TOOLS FOR TO LATEX   **10 Hrs**

Basic LaTeX – Sample document and Key Concepts – Type style – Lists – Tables – vertical and horizontal spacing- Some common structures – mathematical symbols – arrays – space – change style – List - Defining commands and environment – Figures and tables – Tabular environment - sectioning – declaration – change the type style – accents – symbols.

Text books

* David F Griffiths and Desmond J. Higham. (1996). "*Learning LaTex*". SIAM

  (Society for Industrial and Applied Mathematics) Publishers. PhidelPhia.

References

* Martin, J. Erickson and Donald Bindner. (2011). *A Student's Guide to the Study*

  Practice and Tools of Modern Mathematics. CRC Press. Boca Raton. FL.

II-M.sc., PHYSICS

UNIT-5 TOOLS FOR ANALYSIS   **10Hrs**

Analytical Technique – principles of single crystal and powder X-ray diffraction, FT–IR, Raman and UV–visible spectrometers – SEM, TEM, EDAX, AFM, EPMA – Instrumentation – Sample preparation – Analysis of materials – study of dislocation – ion implantation uses.

Text books
- Sivasankar,B . (2012). *Instrumental methods of analysis*. Oxford University Press. New Delhi.

References
- Frank, A. Settle. (1997). *Handbook of Instrumental Techniques for Analytical Chemistry*. Upper Saddle River. NJ: Prentice Hall PTR. New Jersey.

II-M.sc., COMPUTER SCIENCE

UNIT-V   TOOLS FOR ANALYSIS   10Hrs

Interpretation of data and Paper Writing – Layout of a Research Paper, Journals in Computer Science, Impact factor of Journals, When and where to publish ? Ethical issues related to publishing, Plagiarism and Self-Plagiarism, Use of tools / techniques for Research: methods to search required information effectively, Reference Management Software like Zotero/Mendeley, Software for paper formatting like LaTeX/MS Office, Software for detection of Plagiarism.

Text books
- Darren George & Paul Mallery . *SPSS for Windows.* Pearson Education

References
- Leslie Lamport. LaTeX: *A Document Preparation System.* Second Edition.

VIII.   RESEARCH AND PUBLICATION ETHICS
MRPE101

Semester	: I	Credits : 2
Category	: Core IV	Hours/Week : 2
Class	: M.Phil	Total Hours : 30

 Objectives
To enable the students
- For awareness about the publication ethics and publication misconducts.

UNIT - I PHILOSOPHY AND ETHICS   3 Hrs
1. Introduction to philosophy: definition, nature and scope, concept, branches.
2. Ethics: definition, moral philosophy, nature of moral, Judgments and reactions.

UNIT - II SCIENTIFIC CONDUCT   5 Hrs

1. Ethics with respect to science and research.
2. Intellectual honesty and research integrity.
3. Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP).
4. Redundant publications: duplicate and overlapping publications, salami slicing.
5. Selective reporting and misrepresentation of data.

UNIT – III PUBLICATION ETHICS   7 Hrs

1. Publication ethics; Definition, Introduction and the importance.
2. A best practices standards setting initiatives and guidelines: COPE, WAME, Etc.,
3. Conflicts of interest.
4. Publication misconduct: Definition, Concept, Problems that lead to unethical behavior and vice versa, types.
5. Volition of publication ethics, Authorship and Contributor ship.
6. Identification of Publication misconduct, Compliance and Appeals.
7. Predatory Publishers and Journals.

UNIT -IV OPEN ACCESS PUBLISHING   4 Hrs

1. Open access publication and initiatives.
2. SHERPA/Romeo online resource to check publisher copyright & Self-archiving Policies.
3. Software tool to identify predatory publication developed by SPPU.
4. Journal Finder / Journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggester, etc,.

UNIT -V PUBLICATION MISCONDUCT   4 Hrs

A. Group Discussion (2 Hrs)

1. Subject specific, Ethical issues, FFP, Authorship,
2. Conflicts of interest
3. Complaints and appeals: Examples and Fraud from India and Abroad.

B. The software tools (2 Hrs)

Use of Plagiarism software like true it in Urkund and other open source software tools.

UNIT -VI DATABASES AND RESEARCH METRICS   7 Hrs

A. Data Bases (4 Hrs)

1. Indexing database
2. Citation Database: Web of Science, Scopus, etc.

B. Research Metrics (3 Hrs)

1. Impact factor of Journal as per Journal citation report, SNIP, SJR, IPP, Cite Score.
2. Metrics: h – index, g – index, i 10 Index, Almetrics.

III & IV Evaluation Components of CIA

Semester	Category	Course Code	Course Title	Component III	Component IV
I	CORE IV	MRPE101	Research And Publication Ethics (RPE)	Assignment, Quiz	Group Discussion, Tutorials

IX.   EXAMINATION REFORMS

ESE April 2020 & CIA (2020-21)   : Online

Software   : **cims.mastersofterp.in** (faculty login for question paper typing & Student's login for attending exam)

Question paper pattern   : 30 MCQ; 10 Two Marks

Time Duration   : 1 hour 30 minutes

Maximum Marks   : 50

B. Streamlining Retest Provisions:
   Theory: Semester I to VI for UG &I to IV for PG
   - A student has to be present for the entire CIA test as per the schedule.
   - If a student is absent due to her illness alone, she can take the retest with the payment of registration fee Rs. 500/- only after the approval of the Principal through course teacher, head of the department and controller of examinations and medical certificate has to be submitted.
   - If a student did not fall in the above said category, she is eligible to take the odd semester courses in the odd semester and even semester courses in the even semester.

   Note: If a student attending retest for CIA I during improvement period, question paper to be prepared from the CIA syllabus.

Practical
   Provision for the retest (Practical) in CIA will be provided only for the CIA test I and it has to be completed before CIA test II with the approval of the Principal through controller.