

CONCEPT NOTES OF ALL SKILL ENHANCEMENT COURSE
(SEC's) (ODD SEMESTER 2023-2024)

OFFERED BY ARTS DEPARTMENT

1. DEPARTMENT OF PSYCHOLOGY:

COURSE NAME - STRESS MANAGEMENT AND RESILIENCE

(This course is being offered as a VSC for Psychology students and an SEC for others, so the course code may change accordingly)

STRESS MANAGEMENT AND RESILIENCE

“You have complete control over three things in your life, what you think, what you say and how you behave. To make a change in your life you must recognize that these gifts are the most powerful tools you possess in shaping the form of your life”- Sonya Friedman

The **Stress Management & Resilience** course is designed to make students aware of the nature of stress and its effect on their quality of life. By the end of this course, students will be able to identify stressors and strategies (focused on thinking, emotions, and behaviour) to manage them effectively. Some of these strategies will help prevent certain stressors, while others can be used to manage stress in the moment. They will also identify ways to strengthen their own and their community's sense of resilience to adapt to difficult and stressful circumstances. The teaching-learning experience includes activities for personal reflection and application.

2. DEPARTMENT OF COMMERCE:

COURSE NAME - INTRODUCTION TO ADVERTISING

The ‘**Introduction to Advertising**’ course is designed to help learners grasp the different concepts and types of advertising. The students will be made familiar with the crucial role of advertising agencies and the importance of ethics in advertising. The learners will be able to explore and understand the various creative strategies used in the advertising field. The teaching-learning experience includes case studies and activities for personal reflection and application. To inform students about the current and upcoming advertising trends.

3. DEPARTMENT OF SOCIOLOGY:

COURSE NAME - Introduction to Academic Writing in the Social Sciences

The multiple choice question-based examinations over 2 years (2020-2022) and a lack of access to reading material like journals and books on campus (in libraries) led to a weakened writing culture among students of the social sciences. A need to provide a space to explore this was noticed. A two-credit course is to be offered, 15 taught lectures and 15 hours of practical work is expected to be covered, amounting to 30 hours of teaching overall.

The objective is to improve their ability to engage with longer academic texts and help them re-engage their attention to the language of academia and also their ability to think, express, explore a range of sources, and learn the basic ethics of doing secondary research and applying their own thought in a direct manner at the First Year. This course aims to contribute particularly to reviving their essay writing skills for terms papers and examinations at the First Year level. The course would also allow them to explore the libraries on campus, and the research portals available online thus connecting them to educational infrastructure beyond their mobile phones and social media.

4. DEPARTMENT OF HINDI:

COURSE NAME - Hindi Translation

Concept Note:

The department of Hindi is offering Hindi Translation Course (Hindi to English & vice - versa) for FYBA students.

Definition:

Translation is a process in which we can change the content from one language into another language without changing its meaning.

For the process of translation we should have two languages . The original language and the target language.

Course Content:

The Hindi Translation Course consists of two credits. It will be taught in two parts. The part one is related to theory and part two is related to the practical training.

Importance of the Translation :

India is a multilingual country.

Translation work has always been an important part of education to make the new bridges between various languages .

Translation is an important tool to carry our rich history & heritage , philosophy, and culture from home to abroad.

The great literary work done by our eminent writers and poets has already been translated into foreign languages.

Now, the time has changed.

The translation is relevant not only in the field of literature but also in science, commerce, law, management, medical and engineering field.

IIT Madras is taking services of artificial intelligence for the translation.

Therefore, there is a big job opportunity for the translators in every sphere of life.

Employment Assurance :

The central government departments such as

Ministry of Home , Ministry of Foreign Affairs, Ministry of Defense (The Indian Armed Forces Army , Navy &

Airforce) , Ministry of IB , Ministry of Railways, Ministry of Human Resource Development & Human Resource Management, Ministry of Cultural,

Ministry of Finance, etc. have the vacancies of the translators, Official Language Officers, AGM (Official Language) etc. with central government special pay & allowances including residence, etc.

5. DEPARTMENT OF ECONOMICS:

COURSE NAME - FINANCIAL EDUCATION AND PLANNING

The course aims at training students with Personal Finance management with Savings and Instruments of Investment. It helps in Assets Allocation and setting Financial Goals. Selection of right Investment Options and Understanding and Mitigating Risk is a skill and students will learn the technicalities of this skill. The course primarily focuses on Digital Banking and Investment in Securities by doing Categorization of Mutual Funds and SIP (Systematic Investment Plan), Commodity Derivatives Markets. And it finally covers the Tax Saving Mechanism which is very much crucial in financial decisions.

6. DEPARTMENT OF ENGLISH:

COURSE NAME: Soft Skills through Literature: Public Speaking

This course uses literature as a touchstone to impart the knowledge of soft skills, especially public speaking skills. Besides that, the text and the context of the course compel the students to comprehend skills essential to negotiate and navigate their way through life namely; Communication, Teamwork, Problem-solving, Time management, Critical thinking, Decision-making, Organizational, Stress management, Adaptability, Conflict management, Leadership, Creativity, Resourcefulness, Persuasion, Openness to criticism/feedback, Emotional Intelligence. The textual catalysts will spur on the desire to activate changes in one's own personality-arc and body-language because the benchmark of character-growth will be acquired through the observation and analysis of characters/protagonists within a text. By locating and re-creating the text in a contemporary setting, the students' imagination will further be broadened to absorb the soft skills that are requisite within the domestic and work space.

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OFFERED BY SCIENCE DEPARTMENT

1. **DEPARTMENT OF BOTANY:**

COURSE NAME - BIOFERTILIZERS

The course will help students gain knowledge about the preparation of biofertilizers, its method of application, its significance and role in sustainable agriculture. It is widely known that biofertilizers are much better than chemical fertilizers when it comes to harmful effects of the latter on plants, environment, soil, water and humans. The microorganisms in biofertilizers fix atmospheric nitrogen, solubilize phosphorus, promote growth of plants, improve soil health, make nutrients available to plants, protect the environment and give economic benefits. The course gives explanation on the role of microbes used in biofertilizer, their identification, multiplication and use. The role of mycorrhiza, types of mycorrhizal association and its influence on yield of crop plants will also be studied. The course deals with creating understanding about the quality parameters of biofertilizers, its storage, and application methods. It will also give knowledge on emerging trends, innovations and future prospects in the field of biofertilizer research. The practicals will include identification and observation of microorganisms like *Anabaena*, *Rhizobium*, Mycorrhizae, and also study of composting methods like biocompost, vermicompost and *Azolla* culture. Thus the course will help students to get an overview of the preparation and use of biofertilizers.

2. **DEPARTMENT OF CHEMISTRY:**

COURSE NAME: ICT TOOLS IN CHEMISTRY

The course covers some important software required by researchers in various scientific fields. Common tools like MathType and Microsoft Excel are vital to data analysis and presentation. Advanced software like ChemSketch and LaTeX are imperative in drawing structures of compounds, writing molecular reactions and mechanisms while Simulations help in their better visualization.

3. **DEPARTEMENT OF GEOLOGY:**

COURSE NAME: CARTOGRAPHY UNVEILED – MAPS, THEIR CREATION AND INTERPRETATION

Introducing & quot; Cartography Unveiled: Maps, their creation and interpretation”.
"Maps encourage boldness. They're like cryptic love letters. They make anything
seem possible." - Mark Jenkins

Are you fascinated by the art and science of maps? Discover the captivating realm of cartography with our ground-breaking course designed specifically for undergraduate students. "Cartography Unveiled" offers an immersive journey into the creation and interpretation of maps, opening doors to a world of spatial understanding and exploration.

Unleash your inner explorer as you delve into the rich history of cartography since the earliest times – the Bedolina petroglyphs to the first accurate maps of India and beyond. Witness its modern-day applications across diverse fields. Uncover the secrets of map types, projections, and design principles, mastering the skills to craft visually stunning and informative maps. Gain hands-on experience using software and tools employed by industry professionals and hobbyists.

Explore the power of maps as communication tools, learning to tell compelling stories through visual representations of data. Engage in stimulating discussions and practical exercises that challenge your analytical and critical thinking abilities, sharpening your map interpretation skills.

With "Cartography Unveiled," you'll not only enhance your knowledge but also cultivate valuable skills highly sought after in today's data-driven world. Useful or rather mandatory not just for students pursuing geology, but also field based subjects like Botany, Zoology, Archaeology and History. Join us on this transformative journey, and unlock your potential as a cartographer and geospatial expert. Enroll now to chart your path to success in the captivating realm of cartography.

4. **DEPARTMENT OF LIFE SCIENCE:**

COURSE NAME: MICROSCOPY AND COLORMETRY

Observational and laboratory skills are important elements of scientific pursuit. The proposed Skill Enhancement Course will inculcate the logic and rigor of theoretical concepts and the expertise required in the handling and correct usage of the microscope and the colorimeter. These instruments are of primary importance for effective study of microorganisms and estimation of chemical compounds respectively. This course will also assist students to develop a clear thought process, implement critical analysis of concepts and evolve an applicative mind. This course will surely assist students to apply these techniques confidently in their onward educational journey.

5. **DEPARTMENT OF MATHEMATICS:**

COURSE NAME: MATHEMATICAL COMPUTATIONS USING SAGEMATH

This course aims to use Sagemath , a Python based free and open source computer algebra system to explore some basic concepts in Mathematics.

In first two weeks students will learn to do some numerical computations using Sagemath. In later weeks the main focus will be to introduce students to use Sagemath software to understand functions and their graphs i. e. 2D and 3D plotting of graphs and also to explore some basic concepts from Calculus and Algebra. Students will also learn concepts like first order differential equations, solving system of linear equations, matrix operations etc. on the platform of Sagemath.

6. **DEPARTMENT OF PHYSICS:**

COURSE NAME: MECHANICAL MEASUREMENT TECHNIQUES

This syllabus covers a range of topics related to mechanical, thermal, and optical measurements. It begins with significant figures and basic error analysis, focusing on precision, accuracy, and types of errors. The syllabus then explores various mechanical measurement tools such as Vernier callipers, micrometre screw gauges, travelling microscopes, sextants, and spherometers, used for length, thickness, height, and curvature measurements. It also includes other tools like tape measures, framing squares, levels, and protractors. Weighing machines, density metres, hygrometers, and rain gauges are discussed for weight, density, humidity, and rainfall measurements. Thermal measurements involve temperature measurement using thermometers and thermocouples, as well as pressure measurement with barometers. Lastly, the syllabus covers the principles and applications of optical lever, spectrometers and interferometers.

The aim is to provide students with comprehensive knowledge and practical skills in precise and accurate measurements across various fields of study.

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OFFERED BY COMMERCE DEPARTMENT

1. COURSE NAME: BUSINESS MATHEMATICS

The course- Business Mathematics consists of mathematical concepts related to the domain of business. This course mainly comprises understanding and enhancing of computational skills related to cost, profit, loss, interest, percentages, discount, assets, and liabilities aspects of a business. This basic course is designed to brush up and make a learner, comprehend basic computational skills in the field of accounting, auditing, investment management, and commercial periphery, which will eventually benefit a learner to execute the business tasks effectively and efficiently. Learners of this course will develop mathematical thinking through the application of some math formulas in the form of problems and solutions.

**2. COURSE NAME: BASIC DATA ANALYSIS USING DATABASE
MANAGEMENT SYSTEMS**

The course is designed to provide learners with comprehensive training in utilizing spreadsheets, particularly Microsoft Excel, to enhance their analytical and data management skills. This course aims to equip learners with essential knowledge and practical skills in spreadsheet applications, enabling them to efficiently organize, analyze, and present data in various professional and academic contexts. Through hands-on exercises and real-life case studies, learners will get hands-on experience in various functions of Excel, including data entry, formula writing, data manipulation, and visualization techniques.

By mastering spreadsheet applications, learners will gain a competitive edge in the job market, as proficiency in Excel is highly valued across industries and job roles. This course aims to foster critical thinking, problem-solving, and decision-making skills by leveraging the power of spreadsheets. Overall, the "Spreadsheet/Excel" course empowers learners to become proficient users of spreadsheet software, enabling them to handle complex data effectively and make data-driven decisions with confidence.