



ADD ON COURSE

ABENEX01: LEARN ENGLISH THROUGH FILMS

Total Hours: 36

Credit: 2

Course Objective

This course aims at developing the necessary skills required for effective and proper communication in English. Since the prescriptive method of learning English through grammatical rules and their respective exercises finds a few followers, this course aims at making the difficult part in language learning easy and interesting. Movies have a large following in general and as such it can effectively communicate with the young minds. The careful gradation in the well thought out modules can ideally impart skills like listening, speaking, reading and writing as well as higher order skills of creative writing and presentation.

Course Structure

MODULE 1: LISTENING AND COMPREHENSION

Students listen to clips, trailers, informative visual presentations on various topics – comprehends the meaning through repeated viewings and instructions from the teacher- complete the exercises.

MODULE 2: BASIC GRAMMAR

Only the very essential aspects of grammar required for effective communication are introduced to the students. Exercises are provided based on the visual materials they see. It is an involuntary way to acquire the language structure.

MODULE 3: SPEAKING AND PRESENTATION

Students are given opportunity to express their opinions and ideas on movies. Complete a dialogue differently from the film version and even enact certain roles.

MODULE 4: WRITING AND TRANSLATION

Analytical approach is taken to go in to the depths of certain popular movies-They imagine the possible course of a movie and write about them in a personal way. In the translation part with computer software students learn to translate from and to their mother tongue from English.



References

Listening and Comprehension

Movie clips from Bolt, Funny Cats, Indiana Jones, Out of Rainbow, Mr Bean, Pride and Prejudice, Silver Lining Playbook, The Great Gatsby etc followed by exercises for comprehension and listening.

Basic Grammar

Legally Blonde - Verb Patterns, Despicable Me 2 - Simple Past, Puss in Boots - Imperative Forms, Kung Fu Panda 2 & Madagascar 3, The Curious Case of Benjamin Button – Wish, Closed Circuit - Past Perfect Continuous, Ender's Game - Adjectives Describing Leaders, Under the Dome - Modals for Speculation, The Adventures of Tin Tin - Sequence Words, Narratives, Gravity - So x So That, The Secret Life of Walter Mitty – Wish, Frozen - Future Will x Simple Past, The Hunger Games Catching Fire - Relative Clauses, Cloudy with a Chance of Meatballs 2 - Describing Physical Characteristics, Flight Plan - Modals for Speculation, Zookeeper - Reported Speech, Cellular - Emphatic Do, Jack and the Giant Slayer - Modal for Drawing Conclusion MUST, The Nut Job - A Number of x The Number of

Speaking and Presentation

Students narrate the story line of movies they have watched

Exercises for dialogue reconstruction

Role enacting

Completing ideas and sentences

Writing and Translation

Software aided translation

Different writing exercises like movie reviews, alternative endings etc.

Question Paper Pattern (Time: 1½ hrs)

Division	Type	Marks
Part A	Listening and Comprehension exercises	20
	1. Listening to film clips and reconstruction - $5 \times 2 = 10$ Marks 2. Short essay on viewed clippings - $1 \times 10 = 10$ Marks	
Part B	Writing and Translation	20
	1. Review writing - $1 \times 10 = 10$ Marks 2. Film transcript/translation - $1 \times 10 = 10$ Marks	



Add on Course
SHORT FILM MAKING
 മലയാളവിഭാഗം

Fee: Rs.1000

Duration:36 Hrs

Student Intake: 40

ആമുഖം:

സിനിമയെന്ന മാധ്യമത്തെ മനസിലാക്കാനും അദ്ധ്യപനത്തോടൊപ്പം ആവർത്തിച്ചുള്ള കാഴ്ചകളിലൂടെ ഷോർട്ട് ഫിലിം നിർമ്മാണത്തിനുള്ള സാഹചര്യം ഒരുക്കാനും ഉപകരിക്കുന്ന രീതിശാസ്ത്രമാണ് ഈ കോഴ്സിൽ സ്വീകരിച്ചിരിക്കുന്നത്.

പഠനലക്ഷ്യം:

1. ഷോർട്ട് ഫിലിമുമായി ബന്ധപ്പെട്ട മേഖലകളിൽ അനുഭവവും പ്രായോഗികപരിജ്ഞാനവുമുള്ള ചലച്ചിത്രപ്രവർത്തകരെ പങ്കെടുപ്പിച്ച് ഹ്രസ്വചിത്രം നിർമ്മിക്കാനുള്ള അവസരം ഒരുക്കുക.
2. ദൃശ്യഭാഷയെ വൈദഗ്ധ്യത്തോടെ ഉപയോഗിക്കാനുള്ള പ്രായോഗിക പരിശീലനം നേടുക.

മുഖ്യനിർണ്ണയരീതി:

അറ്റണ്ടൻസ്, കോഴ്സിന്റെ അവസാനം പ്രോജക്ടിന്റെ ഭാഗമായി വിദ്യാർത്ഥികൾ തയ്യാറാക്കുന്ന ഷോർട്ട് ഫിലിം, വൈവാ എന്നിവയുടെ അടിസ്ഥാനത്തിലാണ് മാർക്ക് നൽകുന്നത്.

ദൈർഘ്യം: 36 മണിക്കൂറാണ് കോഴ്സിനായി ക്രമീകരിച്ചിരിക്കുന്നത്.

മൊഡ്യൂൾ ഒന്ന്:

ദൃശ്യങ്ങളുടെ അടിസ്ഥാനസ്വഭാവം- ഹ്രെയിം, ഷോട്ട്, സീൻ, സീക്വൻസ്. വിവിധതരം ഷോട്ടുകൾ- ഏരിയൽ ഷോട്ട്, ലോങ്ങ് ഷോട്ട്, മീഡിയം ഷോട്ട്, ഫുൾ ഷോട്ട്, കൌബോയ് ഷോട്ട്, ക്ലോസപ്പ് ഷോട്ട്, എക്സ്റ്റീം ക്ലോസപ്പ്. ക്യാമറാ കോണുകൾ - ഹൈ ആംഗിൾ, ലോ ആംഗിൾ, മീഡിയം ആംഗിൾ. ക്യാമറാ ചലനങ്ങൾ - പാനിംഗ്, ടിൽട്ടിംഗ്, ട്രാക്കിംഗ്, ഹാൻഡ് ഹെൽഡ്, ക്രെയിൻ, ജിമ്മിജബ്ബ്.

നിറങ്ങൾ- നിറങ്ങളുടെ തെരഞ്ഞെടുപ്പ്.പ്രകാശവിന്യാസരീതികൾ.-വിവിധതരം ഫിൽറ്ററുകൾ, ഫിൽറ്ററുകളുടെ ഉപയോഗം.

മൊണ്ടാഷ്, മിസ് എൻ സീൻ

മൊഡ്യൂൾ രണ്ട്:

വിവിധതരം ലെൻസുകൾ- വൈഡ് ആംഗിൾ ലെൻസ്, നോർമൽ ലെൻസ്, ടെലിഫോട്ടോ ലെൻസ്, സൂം ലെൻസ്, ഒപ്റ്റിക്കൽ സെന്റർ, നോഡൽ പോയിന്റ്, ഫോക്കൽ ലങ്ത്. എഡിറ്റിംഗ് തത്വങ്ങൾ-മാച്ച് കട്ട്, ജമ്പ് കട്ട്, സ്ലോ എഡിറ്റിംഗ്, ഫ്രീസിംഗ്, ക്രോസ് കട്ടിംഗ്. സ്ലൈഡ് എഫെക്റ്റുകൾ - ഫെയ്ഡ് ഇൻ, ഫെയ്ഡ് ഔട്ട്, ഡിസ്ലോൾവ്, ഐറിസ്, വൈപ്പ്, റാംപിങ്. ആസ്പെക്റ്റ് റേഷ്യോ. 360 ഡിഗ്രി നിയമം, 180 ഡിഗ്രി നിയമം, 30 ഡിഗ്രി നിയമം.

മൊഡ്യൂൾ മൂന്ന്:

തിരക്കഥ- വ്യത്യസ്ത നിലപാടുകൾ, രചനാപരമായ സവിശേഷതകൾ. തിരക്കഥാരചനയുടെ വിവിധഘട്ടങ്ങൾ- ആശയസാധനം, പ്രമേയം, ഇതിവൃത്തം, ഘടനാപരമായ രൂപരേഖ.

തിരക്കഥയുടെ ഘടകങ്ങൾ - സംഭാഷണം, ശബ്ദം, സംഗീതം, അഭിനയസൂചകങ്ങൾ. ഷൂട്ടിംഗ് സ്ക്രിപ്റ്റ്

മൊഡ്യൂൾ നാല്:

ലോകപ്രശസ്ത ഷോട്ട് ഫിലിമുകളുടെ പ്രദർശനവും ചർച്ചയുമാണ് ഈ മൊഡ്യൂളിൽ നടത്തേണ്ടത്.

കാണേണ്ട ചിത്രങ്ങൾ

- A Trip to the Moon – George Melles
- The Great Train Robbery – Edwin. S Porter
- Un Chien Andalou – Luis Bunuel
- An Occurance at Owl Creek Bridge – Robert Enrico
- Night and Fog – Alen Renai
- Love Field – Mathieu Ratthe

മൊഡ്യൂൾ അഞ്ച്:

1. **Project** -ഒരു ഹ്രസ്വചിത്രത്തിന്റെ ഷൂട്ടിംഗ് സ്ക്രിപ്റ്റ് തയ്യാറാക്കുക. ഈ ഷൂട്ടിംഗ് സ്ക്രിപ്റ്റിനെ ആധാരമാക്കി 5 മുതൽ 20 മിനിട്ടുവരെ ദൈർഘ്യമുള്ള ഹ്രസ്വചിത്രം തയ്യാറാക്കി സമർപ്പിക്കുക. വിദ്യാർത്ഥികളെ രണ്ട് ടീമായി തിരിച്ച് ഈ പ്രവർത്തനം നടത്താം.
2. **Screening**- വിദ്യാർത്ഥികൾ തയ്യാറാക്കിയ ഷോട്ട് ഫിലിമിന്റെ പ്രദർശനം നടത്തുക.
3. ഫിലിം ഫെസ്റ്റിവലുകളിൽ അയയ്ക്കുക.
4. സോഷ്യൽ നെറ്റ്വർക്കിംഗ് സൈറ്റുകളിൽ അപ് ലോഡ് ചെയ്യുക.

Scheme of Evaluation:

Internal Evaluation – 20 Marks

Project – 60 Marks

Viva – 20 Marks

റഫറൻസ്

1. അരവിന്ദൻ വല്ലച്ചിറ, തിരക്കഥ സിനിമയുടെ ബൃഹദിന്ദ്രം, SPCS, കോട്ടയം, 2010
2. ജിതേഷ് ടിസിനിമയുടെ വ്യാകരണം, ഒലിവ് പബ്ലിക്കേഷൻസ്, കോഴിക്കോട്, 200 ,0
3. മുരളീകൃഷ്ണവീഡിയോ ടെക്നിക്കൽ, ഡി സി ബുക്സ്, കോട്ടയം, 2006 ,
4. സാബു ശങ്കർ സിനിമയുടെ സൗന്ദര്യശാസ്ത്രത്തിന് ഒരാമുഖം, NBS ,കോട്ടയം2008 ,
5. സാജൻ തൈരുവപ്പുഴ, ഷോട്ട് ഫിലിം നിർമ്മാണം, മാതൃഭൂമി, കോഴിക്കോട്, 2011
6. Andre Bazan, What is Cinema, University of California Press,2004
7. Christopher Bowen, Thompson Roy, Grammar of the Shot, Wolfhome, 2009
8. Christian Metz, Language and Cinema, The Houge, Mouton & Co, 1974
9. Langford M J, Basic Photography, Focal Press, 1977

Course Coordinator

Ajeesh Thomas

Assistant Professor

Department of Malayalam

S B College Changanassery



ADD-ON PROGRAMME IN FINANCIAL JOURNALISM

Department: ECONOMICS

Fees: INR 1000

Student Intake: 40

Course Coordinator: JERIL TOM

Duration: 36 hours

Objectives of the Course

Financial journalism has become one of the most exciting and important areas in both print and electronic media and one of the fastest growing fields in terms of employability. It tracks, records, analyses and interprets the financial changes that take place both at national and global level. The certificate course in financial journalism that is proposed to be offered will impart reasonable knowledge to the students in reporting business, economic and financial news.

Course Outcome

By the end of the course, one will be able to report and analyse business and financial news, working across television, radio, print and online media.

Syllabus

Module 1 Fundamentals of Journalism 6 hours

Evolution of business and financial journalism- Ethics, Rules & Standards in Journalism-Regulator framework- Key Issues in Business and financial journalism - Journalism Practice-Online Journalism

Module 2 Introduction to Frequently used Economic & Business Concepts 14 hours

Economic growth – indicators – National Income concepts – Broad economic sectors – price indices and inflation - dynamics of gold and oil prices- Capital Markets-Derivatives, Futures and Options Trading- SENSEX & Other Indices -Debt Markets- Mutual Funds and Exchange Trade Funds-currency futures- concepts in monetary policy- Budgetary concepts-BOP concepts- foreign exchange rate- FOREX markets- foreign exchange regimes- government securities market- role and functions of RBI and SEBI

Module 3 Data processing & Analytical writing 10 hours

Economic/Business data sources - Data Reporting- Analysis of Financial Statements- Statistical tables-Frequently used charts/figures-Frequently used statistical measures- ratio- percentages -mean, growth rates- trend analysis- introduction to MS Excel-interpretation of data

Module 4 Financial Reporting in Practice 6 hours

Steps involved in collection and analysis of facts and information – interviewing –editorial production - language and style of writing – business news photography- fair practices in reporting

Module 5 Self-study

Exploring the global economy –WTO and Indian agriculture – Understanding business dynamics –tax reforms –basics of banking- functions of private corporates in India – India as a manufacturing hub

References

- Marie Kinsey (2019). Financial Journalism, Routledge. London
Tony Harcup (2014). A Dictionary of Journalism, Oxford University Press
Ibrahim Seaga Shaw (2016). Business Journalism: A Critical Political Economy Approach, Routledge
Keith Hayes (2013). Business Journalism: How to Report on Business and Economics, Apress
Peter Kjaer, Tore Slaatta (2007). Mediating Business: The Expansion of Business Journalism, Copenhagen Business School Press
Terri Thompson (2000). Writing About Business – The New Knight-Bagehot Guide to Economics & Business Journalism, Columbia University Press
Keith J. Butterick (2015). Complacency and Collusion: A Critical Introduction to Business and Financial Journalism, Pluto Press
N. Gregory Mankiw (2007). Economics: Principles and Applications, Cengage Learning India Private Limited.
Robert S. Pindyck, Daniel L. Rubinfeld (2017). Micro Economics, Pearson Education, Delhi, Hill, Delhi
N. Gregory Mankiw (2016). Principles of Macroeconomics, CENGAGE Learning Custom Publishing
Francis Cherunilam (2008). International Economics, Tata McGraw Hill, Delhi
V.K.Puri, S.K.Misra (2019). Indian Economy, Himalaya Publishing House
L M Bhole, Jitendra Mahakud (2017). Financial Institutions and Markets, McGraw Hill Education
Khan M F (2006). Indian Financial Institutions, Tata McGraw Hill Ltd
Prasanna Chandra (2017). Investment Analysis and Portfolio Management, McGraw Hill Education



VIDEO PRODUCTION AND SCIENCE COMMUNICATION

Fee: Rs.1000

Duration:36 Hrs

Student Intake: 40

Objectives

The broad objective of this programme is to impart basic knowledge about visual media and thereby familiarize students in video production and science communication. The course will give ample exposure in script writing and direction of video films both fiction and non-fiction. Besides the course will also orient the students in acquaint with science communication films.

The highlight of the course is to empower the students with practical experience. For this practicals the video production of film and outdoor programmes have been included.

The course will definitely boost the chances of our undergraduate students opting for video production and related fields.

Paper 1 Research

Importance of Research, programme Research, Source of information, Interviews, Interview Technique, Processing information and qualitative analysis.

Paper 2 Script Writing

Technique, Structure of Story-incident, Plot, Characterization, Opening, Theme development, Three and five structure, Plot line, different types of script, Scripting of Science Programmes, documentary and short fiction, Animation and educational programmes

Paper 3 Role of Director in fiction and non fiction films

Directing video films (fiction and non fiction), directing science communication films

Paper 4 Different formats of presentation in TV/Video

Paper 5 Directing indoor and out door programme

Practical /Field work

Paper 1 Research- Collection of data and analysis

Paper 2 Script writing workshop

Paper 3 Production of indoor / out door programmes

Paper 4 Video production- project

Reference

Technique of Screen play Writing- Eugene Vale

Documentry-Eric Banrow

Art of Dramatic Writing - Ergi Swan

Reality on Reels- Mike WoAlverton

Film Script Writing- Dwight Swain

The Technic of Television Production- Gerald Millerson

People, Scince and Technology - Charles Boyeletal

Scheme of Evaluation

Continuous Evaluation- 20(Attendance and Assignment)

Project - 60(At the end of the course, the students have to produce a video film as per the requirement of the course)

Viva - 20



Add on Courses

FREE AND OPEN SOURCE SOFTWARE - LaTeX

Department: Mathematics

Course Coordinator: Treesa Maria Kuriakose

Fee:Rs.1000/-

Duration: 36 hrs

Student Intake:20

Objectives of the Course:

To teach high quality type setting. It is most often used for medium to large technical or scientific documents but it can be used for almost any form of publishing.

Outcome:

Prepare documents containing mathematical formulas and symbols. Write articles in different journal styles. Prepare presentation using LaTeX.

Content/Syllabus:

Module 1: INTRODUCTION - 8 Hours

Installation of LaTeX, Features of Latex etc.

Module 2: LATEX ON WINDOWS - 12 Hours

Type setting in windows using LaTeX, Type setting using LaTeX in Linux etc.

Module 3: COMPILING - 8 Hours

How to compile different TeX files, common errors while compiling and corrections etc.

Module 4: BEAMER - 8 Hours

Power point presentations using LaTeX

REFERENCES

1. Leslie Lamport, LaTeX: A document preparation system, 2nd Edition, Addison-Wesley 1994
2. F Mittelbach, M Goossens, The LaTeX companion, 2nd Edition, 2004.



Add on Courses

QUANTITATIVE TECHNIQUES FOR COMPETITIVE EXAMINATIONS

Department: Mathematics **Course Coordinator:** Treesa Maria Kuriakose

Fee:Rs.500/-

Duration: 36 hrs

Student Intake: 40

Objectives of the Course:

To prepare students of all streams to approach competitive examinations. Detailed explanation and short cut method for solving problems are to be introduced to students, so that they can acquire better understanding of concepts and problem solving skill.

Outcome:

Apply quantitative reasoning and mathematical analysis methodologies to understand and solve problems. Students comprehend, work with, and apply general mathematical techniques and models to different real life situations, not just plug problem-specific data into a given formula.

Content/Syllabus:

Module 1 - 8 Hours

Types of numbers, Multiplication and division of numbers, Permutations and combinations – simple applications, Trigonometry introduction, Values of trigonometric ratios of 0° , 30° , 45° , 60° & 90° , Heights and distances – Simple cases - (application of $\sin x$, $\cos x$, $\tan x$, and their reciprocals only).

Module 2 - 10 Hours

Probability – Introduction – Sample spaces and events, Simple examples like tossing coin, tossing die etc., Number series, Odd man out, Number puzzles, Clock and calendar, Races and games, Inequality.

Module 3 – 8 Hours

HCF and LCM of numbers, Fractions, Squares and square roots, cube and cube roots, simplifications, Percentage, Profit and loss, Simple interest , Compound interest.

Module 4 - 10 Hours

Ratio and Proportion, Time and work, Partnership, Mixture, Work and wages, Time and distance, Elementary mensuration – Area and perimeter of polygons, Elementary Algebra.

REFERENCES:

1. M Tyra & K Kundan –Concepts of Arithematic, BSC publishing company Pvt. Ltd.
2. S K Sinha, S Satyanarayan, Col. J S Rana(Retd.)-The Complete Reference Manual for CMAT, Arihant Publications Ltd.



Tally ERP 9

Department of Commerce **Course Coordinators:** Mr Anishmon K A, Binu Antony

Fee: 3500

Duration: 72 Hours

Student Intake: 100

Objectives of the Course: To meet the demand for trained and professional accounting professionals in India. Give candidates the necessary skills to assess their own competence in carrying out a range of day-to-day computerized accounting routines and activities. Ensure an enhanced understanding of financial record keeping and computerized accounting using Tally ERP software.

Outcome:

The successful completion of this course will impart the basic computer skills to the students. Students will also be able to manage accounts manually and do computerised accounts in tally. This will course will help them to prepare final reports in accounting manually and over software

Content

Module 1 - Computer Basics

Understanding computers - Understanding Functional units - Understanding Window - GUI and OS- Understanding Files, folders and structure.

Module 2 - Manual Accounting

Understanding Fundamentals of Accounting - Rules of Accounting - Enter Transaction in Primary Book – Journal - Ledger Posting - Trail Balance preparations - Final Accounts Preparation - Adjustment Entries.

Module 3 - Tally ERP 9

Introduction Software Tally - Creation, Alteration and Deletion of Accounting & Inventory Masters - Transaction through vouchers - Purchase / sales management - Order management - Tally Accounting features - Tally Inventory features - Statutory and Taxations - Tally configuration - Import/Export and Backup/Restore – Reports.

DEPARTMENT OF BOTANY

ADD ON COURSE IN PLANT TISSUE CULTURE (54 Hours)

Course Objectives

The student should be able:

1. To familiarize with the tools and techniques of plant tissue culture
2. To understand the possibility for the production of elite plants
3. To apply the technique in micropropagation of plants
4. To establish a commercial micropropagation unit

Paper I. Fundamentals of Plant Tissue Culture 1 credit

Paper II. Applications of Plant Tissue Culture 1 credit

Paper III – Practical, Field Work, Project, Training 1 credit

Paper I – Fundamentals of plant tissue culture - 18 hours - 1 credits

1. Introduction and historical background of Plant Tissue Culture.
2. General Laboratory Techniques.-Maintenance of Laboratory.-Laboratory Space.-Culture Room Culture vessels and washing
3. Equipments Principle and working - pH meter, Hot air oven, Autoclave, LAF, Rotary Shaker.
4. Sterilization techniques- Dry heat sterilization, Wet Heat sterilization and Surface sterilization of explants-Surface sterilants -different Methods.
5. Media preparation, Composition of Nutrient Media, Role of components, Method of preparation of Stock solution, preparation of Growth regulators. Calculations
- 6 Inoculation -Laminar Air Flow, Procedure of inoculation
7. Incubation -Maintenance of inoculation record, subculture and temperature control, Humidity
8. Hardening Techniques.

Paper II. Applications of Plant Tissue Culture - 18 hours - 1 credits

1. Callus culture, suspension culture- choice of explants subculture Estimation of growth of cells in culture.
2. Regeneration -Shoot regeneration, Somatic embryogenesis.
3. Brief study of - Anther culture, Ovary culture, Meristem culture, Embryo culture, Protoplast culture, hybridization.
4. Somaclonal variation - genetic basis of somaclonal variation.
5. Synthetic seeds - Preparation and Importance.

Paper III practical - 18 hours - 1 credits

1. Preparation of Standard tissue culture media -MS and White's. Preparation of Stock solution, Preparation of hormones, cotton bungs.
2. Method of preparation of Media, Sterilization of media.

3. Collection of explants Sterilization, inoculation of explants-leaf; root, shoot, anther, ovary and embryo.
4. Preparation of synthetic seeds
5. Maintenance of cultures, Sub culturing at periodical intervals.
6. Hardening of rooted plantlets.

Field work, project, training

Collection of plant Material with medicinal and economic importance. Establishment in field, Selection of explants, contamination free cultures

References

1. Keshavachandran R & Peter KV (2008) Plant Biotechnology: Methods in Tissue Culture and Gene Transfer. Orient & Longman (Universal Press)
2. S S Bhojwani, M K Razdan (1996). Plant tissue culture: Theory and Practice. Elsevier.
3. L Gamborg, G C Philips (Eds.) (2005). Plant cell, tissue and organ culture: Fundamentals. Narosa Publishing House.
4. S Ignacimuthu (2006). Biotechnology: An introduction. Narosa Publishing House.
5. Edwin F George (1993) plant propagation by tissue culture part I and II The technology. Exegetics ltd.
6. Kalian Kumar De (2003) An introduction to plant tissue culture, New central book agency pvt. Ltd.

EVALUATION

Paper I. Fundamentals of Plant Tissue Culture 1 credit

Paper II. Applications of Plant Tissue Culture 1 credit

Paper III – Practical, Field Work, Project, Training 1 credit

- There shall be a maximum of four papers of 100 marks for the course
- The fourth paper shall be the field work/project work/training. The other three papers shall be theory/and practical papers.
- For the first three papers 50% marks will be set apart for continual internal evaluation and 50% marks will be for the final written examination.
- A separate minimum of 50% marks should be secured for a pass in both internal and written examination.
- The report of the field work/project work/training will be evaluated by the duly appointed examiners and the same may be presented before the career orientation council for approval at the end of the course.
- Students who failed to attain the minimum required marks in the continual internal evaluation should repeat the course, and those failed in the written examination can appear along with subsequent junior batch.
- The continual evaluation marks for each paper may be recorded in form A and the consolidated marks for each paper in form B. The grading can be done in the following way:

- Range of % of total marks Grade

[90 – 100] Outstanding (A+)

[80 – 89] Excellent (A)

[70 – 79] Very good (B+)

[60 – 69] Good (B)

[50 – 59] Satisfactory (C)

Below 50% Failed

- The continual evaluation marks can be awarded in the following manner:

Test papers (minimum 2) 20 marks

Seminar/viva 10 marks

Assignments 10 marks

Attendance 10 marks

Total **50 marks**

MODEL QUESTION PAPER

S. B. COLLEGE CHANGANACHERRY ADD-ON COURSE EXAMINATION PLANT TISSUE CULTURE

Time – 2 Hrs.

Max. mark - 40

Part A

(Answer all questions. Each carrying 1 mark)

1. Give an example for a synthetic auxin
2. What is the pH of MS medium?
3. Name any chemical fusogen
4. Give the sterilization temperature and pressure
5. What is the use of polyoxy ethylene?
6. What are cybrids?
7. What is callus?
8. What is the use of EDTA in MS medium?
9. What is androgenesis?
10. Who is the father of plant tissue culture?

Part B

(Answer any 15 questions. Each carrying 2 marks)

11. Differentiate between dedifferentiation and redifferentiation
12. What is indirect somatic embryogenesis?
13. What are hydrated synseeds?
14. What is the relevance of synthetic seeds?
15. Differentiate between wet heat and dry heat sterilization
16. How protoplast is isolated for protoplast culture?
17. What are the applications of meristem culture?
18. What is surface sterilization?
19. Briefly explain the components of MS medium
20. Write a short note on hormones used in tissue culture
21. Differentiate between habituation and acclimatization
22. List the applications of tissue culture?
23. What is embryo rescue?
24. Differentiate between batch callus culture and continuous callus culture.
25. What is paper raft nurse technique?
26. Explain organogenesis
27. Explain the significance of haploid culture
28. What is somaclonal variation?
29. What are the limitations of tissue culture?
30. Explain about the products of somatic cell hybridization.



ADD ON COURSE -DEPT OF ZOOLOGY
ORNAMENTAL FISHERIES & AQUARIUM MANAGEMENT

Fee: Rs.1000

Duration:36 Hrs

Student Intake: 30

Paper-I- Ornamental fisheries (18Hrs)

1. Introduction, Present status and history of ornamental fish culture.(1Hr)
2. Fish - General Morphology & Structure .(2Hr)
3. Fresh water ornamental fishes & Brief account of Salt water Ornamental fishes .(3Hrs)
4. Physiochemical Parameters in Fish culture.(2Hrs)
5. Nutrition & Feeding of aquarium fishes. (2Hrs)
6. Breeding of Ornamental Fishes in general. (1Hrs)
7. Induced breeding-Principle & Methods. (2Hrs)
8. Aquarium- Objectives & Types. (3Hrs)
9. Harvesting and transportation of ornamental fishes. (1Hrs)
10. Marketing of ornamental fishes. (1Hrs)

Paper-II- Aquarium Management. (12 Hrs)

11. Identification of Ornamental Fishes. (2Hrs)
12. Common Aquarium Plants. (2Hrs)
13. Equipment Used In Aquarium. (2Hrs)
14. Setting up of an aquarium.(2Hrs)
15. Common Diseases of Aquarium Fishes. (2Hrs)
16. Aqua scaping (2Hrs)

One day visit to any well-established commercial aquarium fish culture unit. An individual report of visit is to be prepared and submitted along with record during practical evaluation.

Evaluation of the course

Theory Examination (Objective type) of 1Hr Duration for 30 Marks.

Viva voce – 10 Marks.

Report of Institutional visit- 10 Marks



DEPARTMENT OF MANAGEMENT STUDIES
ADD ON COURSE - FUNDAMENTALS OF MANAGEMENT

Fee: Rs.1000

Duration:36 Hrs

Student Intake: 40

COURSE OVERVIEW:

This course is an introduction to the fundamentals of management. It provides a framework for understanding the factors that influence how organizations evolve, function, and perform.

COURSE OBJECTIVES:

- Providing conceptual understanding of management concepts .
- Familiarizing the students with the contemporary issues in management.
- Enable the students to apply the concepts in the organization .

METHODOLOGY:

Lectures, Case Studies, Role Plays, Group or Class Learning Activities, Experiential Exercises

ASSESSMENT:

CASE ASSIGNMENTS: Throughout the course, students will be required to analyze two cases.

ASSIGNMENT : MANGEMENT CONCEPTS PAPER: Students will be required to write a management concepts paper covering the topics of management principles and concepts.

EXAMS: There will be two exams -- a mid-term and a final exam. The mid-term exam is multiple-choice and will test the student's comprehension of textbook material from the first half of the course. The Final Exam is essay questions that test the student's comprehension and application of the fundamentals of management practice.

SYLLUBUS:

UNIT-I Nature of Management

Tasks of a Professional Manager - Social Responsibilities of Business – Manager and Environment – Systems Approach to Management – Levels in Management – Managerial Skills.

UNIT-II Planning

Steps in Planning Process – Scope and Limitations – Short Range and Long Range Planning – Flexibility in Planning – Characteristics of a Sound Plan – Management by Objective (MBO) – Decision Making – Techniques and Processes.

UNIT-III Organising

Organisation Structure and Design – Authority and Responsibility – Delegation of Authority- Decentralisation – Formal and Informal Organisation.

UNIT-IV Staffing, Directing and Controlling

Overview of Staffing and Directing functions – Controlling – Pre requisites of Control Systems – Control Process – Methods, Tools and Techniques of Control.

UNIT-V Organisational Creativity and Innovation

Management of Innovation – Invention vs. Innovation – Goals of Innovation – Sources of Innovation- Latest Developments in Management

REFERENCES:

1. Koontz & Weirich, “Essentials of Management: An International perspective”, 8th Edn. Tata McGraw-Hill, New Delhi, 2009.
2. Koontz H. Weihrich H “Essentials of Management “ Tata McGraw-Hill, 13th Edition 2001
3. Stephen P. Robbins & David A. Decenzo, “ Fundamentals of Management”, Pearson Education, New Delhi, 3rd Edn. 2001.
4. Tim Hannagan, “Management Concepts and Practices”, Mac Millan India Ltd. 1997.

Add on Courses
WEB DESIGNING

Department: Computer Science

Course Coordinator: Dhanya C.Nair

Objectives of the Course:

This course will introduce you to the realm of web design.

- You'll learn tools to create international standard websites by your own.
- You will discover how does web works really, what makes web sites work.
- Simple and impressive design techniques, from basics till advanced to focus on goal oriented and user centric designs.
- How to and where to start research, planning for website & actually build excellent web sites.
- Train the student in Adobe Photoshop to create new visuals, edit images, add effects and overlays, and eventually create professional designs.

Outcome: Develop skills in creating web sites.

Gain experience in correcting, improving and repairing images

Content/Syllabus: ADD on Course – Web designing

✓ **HTML**

Module 1: Core Elements and Attributes-Basic Text Formatting-Presentational Elements- Lists Basic Links-Adding Images, Using Images as Links

Module 2: Basic Table elements and Attributes-Advanced Tables

Module 3: Forms- Form Controls- Text Input, Buttons, Checkboxes, Radio Buttons, Select Boxes, File Select Boxes

✓ **Dreamweaver**

Module 1 : The Dreamweaver Interface -Creating a Web Site, Making New Web Pages , Playing with Text , Inserting Images Creating Links , Internal and External Links , Named Anchors , E-mail Address

Module 2 : Planning Your Web Site Layout -Preparing Your Layout ,Managing Links , Changing and Moving Links

Module 3 : Using Graphics - Understanding Web Graphics ,Inserting Images into your Web Site ,Aligning Images , Changing Text Wrapping for an Image ,Setting a Background Image for your Web Page

Module 4 : Using HTML Tables- Creating Tables in Layout View , Editing Tables in Layout View ,Table Options, Cell Options ,Formatting Tables , Aligning Table Columns

✓ **Photoshop CS6**

Module 1: Getting Started with Photoshop - Exploring the Toolbox, The New CS6 Applications, Bar & the Options Bar, Exploring Panels & Menus, Creating & Viewing a New Document, Customizing the Interface, Setting Preferences

Module 2 : Working with Images- Zooming & Panning an Image , Working with Multiple Images, Rulers, Guides & Grids , Undoing Steps with History , Adjusting Color with the New Adjustments Panel , The New Masks Panel & Vibrance Color Correction Command, The New Note Tool & the Save for Web & Devices Interface

Module 3 : Resizing and Cropping - Understanding Pixels & Resolution, Resizing for Print & Web , Cropping & Straightening an Image ,Adjusting Canvas Size & Canvas Rotation

Module 4 : PHOTO RETOUCHING :- The Red Eye Tool , The Clone Stamp Tool , The Patch Tool & the Healing Brush Tool , The Spot Healing Brush Tool , The Color Replacement Tool , The Toning & Focus Tools

References:

The Complete Reference HTML & CSS Fifth Edition :Thomas A .Powell

Dreamweaver CS6 by IN EASY STEPS: McGraw Hill

Photoshop CS6 by IN EASY STEPS: McGraw Hill

Fee: 1000

Duration:36 hours

Student Intake:30(2 batches)

German Basic course

AIM: The aim of the course is to provide the student with a useful control of the spoken German language and of a basic vocabulary. Each unit contains a set of basic sentences, notes on pronunciation and notes on grammar. After each unit the students will be provided with a maximum of additional exercises in using the forms and patterns of the language learned in the basic sentences.

Table of contents

Unit 1-8

Unit 1

1. Basic sentences

(a) Making contacts

To welcome, to address, to introduce oneself/others, to thank, to bid farewell

(b) Giving information

Ask for information and to give it, country names, to narrate about your native place, numbers

2. Notes on pronunciation

Phonetics - Quality and quantity of vowels, A sound, E sound, Ü sounds, Ö sounds, accentuation of the word, sentence accent and melody

Orthography- The alphabet, sp, st, ch, äh, öh, üh, tsch ,ts ,tz, chs, ng, ig,qu,ck,ss, ß

3. Notes on grammar

Question words, Sentence structure, word order in the main clause, the pronouns Ich, Du, Sie

Unit 2

1. Basic sentences

(a) Making contacts

Talk a bit about yourself

(b) giving information

Phone number, number names, social media, different places and languages, age, professions, neighbourhood services

2. Notes on pronunciation

Diphthongs

3. Notes on grammar

Verbs and their forms, placing of the verb in the sentence (first second and last place), Noun Gender, verb- infinitive, verbs with prefixes- separable and inseparable

Unit 3

1. Basic sentences

(a) Making contacts

To request, to thank

(b) Giving information

To ask for correctness (is this, yes, no)

2. Notes on pronunciation

Long and short vowels

3. Notes on grammar

Articles, Noun plural, Negation (nicht, kein)

Unit 4

1. Basic sentences

(a) Making contacts

To ask how one is, to give information about it, to present facts, to narrate, to report, to describe

(b) Giving information

To ask for information in a shop

2. Notes on pronunciation

Pronouncing e and ö

3. Notes on grammar

Komposita, article singular/plural, the verb möchte

Unit 5

1. Basic sentences

(a) Making contacts

Daily or yearly routines

(b) Giving information

Weekdays, expressing time, time of the day

2. Notes on pronunciation

a to ä, verbs and exceptions

3. Notes on grammar

More about verbs, preposition um/am, details of time, manner and place in a sentence

Unit 6

1. Basic sentences

(a) Making contacts

To congratulate, to wish luck

(b) Giving information

I and my surroundings

2. Notes on pronunciation

The letter ü

3. Notes on grammar

Nominativ/akkusativ, articles, indefinite article ein, the verb mögen

Unit 7

1. Basic sentences

(a) Making contacts

To invite, to accept

(b) Giving information

My family, colours

2. Notes on pronunciation

Ich laut/ ach laut

3. Notes on grammar

Possessive pronouns singular, auxiliary verbs, the verbs haben and sein

Unit 8

(1) Basic sentences

(a) Making contacts

To express regrets

(b) Giving information

Rooms, houses, places to live, neighbourhood

(2) Notes on pronunciation

German s, z, ng, nk

(3) Notes on grammar

The verb wollen, adjectives, must/must not (darf, darf nicht), possessive pronouns plural



ADD ON COURSES

BCHEX01: INSTRUMENTAL METHODS OF ANALYSIS FOR BIOLOGISTS, CHEMISTS AND PHYSICISTS

Credit: 2

Total Hours: 36

Objectives: The modern science thinks and works in the lemon light of an interdisciplinary approach. The department of Chemistry at St Berchmans offers an Extra Credit Course entitled Instrumental Methods of Analysis for Biologists, Chemists and Physicists. It introduces a variety of modern analytical techniques which include Mass Spectrometry; UV-Visible, IR, and NMR Spectroscopy; High Performance Liquid Chromatography, Gas Chromatography, Column, Paper and Thin Layer Chromatographic techniques which are useful in all branches of basic science. Besides these, the students can learn the basics of analytical instruments such as pH Meter, Potentiometer, Conductivity Meter, Flame Photometer, Atomic Absorption Spectrometer and Electrochemical Analyzer.

The exposure to modern instrumentation will be advantageous to one seeks career in industry, teaching and research.

Module 1: UV-Visible Spectroscopy

Electromagnetic spectrum, Electronic transitions in molecules, Absorptions, Chromophores, Auxochromes; Instrumentation, UV-Visible Spectral pattern, Finding absorption maxima, Measurement of absorbance and its applications.

Module 2: Infrared Spectroscopy

Vibrations in molecules, Functional Groups and Characteristic Vibrations, Representation of IR spectra; Instrumentation, Applications: Recording and Interpretation of IR spectra.

Module 3: NMR Spectroscopy

Different types of nuclei in nature, classification by spin quantum number; Larmor precession of bosons and fermions; Nuclei in molecules, characterization of molecules by NMR spectroscopy, NMR spectrum, interpretation, and applications in science.

Module 4: Mass Spectrometry

General Principles, Mass Spectral Patterns, Interpretation with examples, Applications.



Module 5: Chromatography

Basic principles of paper, thin layer and column chromatography. Gas Chromatography, HPLC. Applications, Experiments in paper, thin layer and column chromatography at the laboratory.

Module 6: Atomic Absorption Spectrometry

Basic principles and applications. Detection copper, chromium and iron in natural samples using AAS.

Module 7: Electrochemical Analyzer

Basic theory and applications. One or two experiments to familiarize the machine.

Module 8: Elementary Analytical Techniques

Theory and applications of pH meter, Salinometer, Conductivity Meter, Potentiometry, Turbidimetry and Flame Photometer. Experiments.

Reference

1. D. A. Skoog, F. J. Holler, S. R. Crouch, *Principles of Instrumental Analysis*, 6th Edn., Thomson Brooks/Cole, **2007**
2. H. H. Willard, L. L. Merritt, J. A. Dean, *Instrumental Methods of Analysis*, 5th Edn., Van Nostrand, **1974**.
3. G. D. Christian, *Analytical Chemistry*, John Wiley & Sons, 6th Edn, **2004**
4. D. A. Skoog, D. M. West, F. J. Holler, S. R. Crouch, *Fundamentals of Analytical Chemistry*, 8th Edn., Thomson Brooks/Cole, **2007**
5. G H Jeffery, J Bassett, J Mendham, R C Denney, Longman, *Vogel's Text Book of Quantitative Chemical Analysis*, **1989**

Question Paper Pattern for Written Examination (Time: 1½ hrs)

Division	Type	No. of Questions to be Answered	Mark for Each Question	Total Marks
Part A	One word	10 out of 13	1	10
Part B	Short answer	5 out of 8	2	10
Part C	Short Essay	4 out of 6	5	20
Grand Total				40

Certification in Digital Marketing and Branding Skills

1. Significance of the Course

Digital marketing is the most trending content sharing, marketing and advertising strategy that uses internet-based technologies such as search engines, social media etc to reach out to customers and audiences. Digital marketing is predicted to overtake the marketing expenditure in traditional media by the end of this financial year. The reason for this is, each and every brand is trying to engage with its customers online, especially when the pandemic has confined everyone to home. The increasing number of smartphone users and the availability of high-speed internet is another factor that has boosted the digital marketing trend.

There are 760 million smartphone users in India right now and it is predicted that the number would rise to a billion smartphone users in 3 years. Google India's revenue in the previous financial year was 256 billion rupees which rose 24% when compared to the previous year. Meanwhile, the social media giant Facebook had an annual increase of 43% in its revenue from India. All these show how digital marketing has emerged as a key player in every business and how enormous the job and entrepreneurial opportunities digital marketing offers. And this is why digital marketing should be an essential part of every course in universities.

2. Objectives

The certification program helps students to have an understanding and experience in digital marketing. Firms from every sector are in search of digital marketing experts so that they can have an advantage over their competitors since most of the business comes from online leads. So, the keyword digital marketing on a resume gives an extra edge to the job hunter and the chances of getting hired doubles. The course is designed in such a way that any student from any stream can benefit from the program in terms of knowledge, skill and job opportunities.

To plan an effective digital marketing strategy it is important to know the platforms, their algorithm, content suitable for each platform and how to create such content. This certification is designed to equip students to be the best content creators as well as digital marketing specialists. Additionally, this course helps the students to get certified by industry leaders like Google, Facebook and Microsoft.

3. Outcomes

On completion of this certificate programme, the students will be able to demonstrate these much-needed skills in today's world and the job market today,

1. Job-related skills - Trillion-dollar corporates and the local startups alike are in search of experts in digital marketing and the students are equipped with skills sought by the job market.
2. Entrepreneurial skills - The students will acquire an understanding of the dynamics of the digital marketing space and they will be capable of beginning their own firms which do not require any capital on a small scale.
3. Communication skills - The students learn how to communicate effectively and efficiently in the digital space across mediums with an understanding of the algorithm of the search engines and social media.
4. Interpersonal skill - Engagement with the audience is an important factor with regard to social media communication and the students learn the effective communication strategies for the present era.
5. Social media awareness - The students will learn how social media works in such an engaging way that each and every person is glued to it. This knowledge would help them to be aware of and be cautious of the addictive nature of social media.

4. Modules

Unit 1. Basics of Digital Marketing - Marketing, advertisement, history of the internet and digital advertisements, social media, digital marketing, algorithms, visibility, engagement, traffic, inbound - outbound marketing, digital marketing vs traditional marketing. (*Hours: theory - 4*)

Unit 2. Content creation for online platforms- types of content: written, audio, picture, video; content and marketing, optimising content for web and for social media, influencers, connecting with influencers, headlines and data. (*Hours: theory - 2, practical - 8*) *Practical: audio-video production.*

Unit 3. Web marketing - web development with WordPress/Vix CMS, domain name, server, hosting, plugin, Google AdSense, Google trends, blogging - content writing, Adwords, keyword planner, Search Engine Optimization, off-page optimization, backlink, Google Analytics, competitor and website analysis, keyword analysis, cookies, page ranking, domain authority. (*Hours: theory - 6, practical - 6*) *Practical: web development.*

Unit 4. Social media marketing - optimization, social media analytics, product marketing in Google Ads, Instagram, Facebook, YouTube video marketing, Twitter campaign, LinkedIn campaign, remarketing; App Store Optimization. (*Hours: theory - 4, practical 1*) *Practical: Analytics.*

Unit 5. Freelancing - guidance to Google, Microsoft Bing, and HubSpot certifications. Freelancing; email marketing, affiliate marketing, mobile marketing, digital marketing automation. (*Hours: theory - 4, practical - 1*) *Practical: Affiliate marketing.*

5. Total Hours: 36 (Theory: 20 + Practical: 16)

6. Valuation: Internal and External assessments

Assignments: Content creation in groups at the end of each module.

7. Suggested Reading

1. Chaffey, D., & Smith, P. R. (2017). *Digital marketing excellence: planning, optimizing and integrating online marketing*. Routledge.
2. Chaffey, D., & Ellis-Chadwick, F. (2019). *Digital marketing*. Pearson.
3. Charlesworth, A. (2018). *Digital marketing: A practical approach*. Routledge.
4. Dodson, I. (2016). *The art of digital marketing: the definitive guide to creating strategic, targeted, and measurable online campaigns*. John Wiley & Sons.
5. Gupta, S. (2018). *Digital marketing*. McGraw-Hill Education.
6. Hanlon, A. (2018). *Digital marketing: Strategic planning & integration*. Sage.
7. Hofacker, C. F. (2018). *Digital marketing: Communicating, selling and connecting*. Edward Elgar Publishing.
8. Kingsnorth, S. (2019). *Digital marketing strategy: an integrated approach to online marketing*. Kogan Page Publishers.
9. Parkin, G. (2016). *Digital marketing: Strategies for online success*. Fox Chapel Publishing.
10. Ryan, D. (2016). *Understanding digital marketing: marketing strategies for engaging the digital generation*. Kogan Page Publishers.

Syllabus Prepared by:

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St. Joseph College of Communication, Changanacherry

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COSMETIC MANAGEMENT - Syllabus

Sl. No	Module	TOPICS	TIME
1	1	Basic Science of Skin	90 mins
2		Skin Types & Concerns	90 mins
3		Skin Care Routine	90 mins
4		Herbal Care of Skin	90 mins
5		Basic Cosmetic Treatments of Skin	90 mins
6		Herbal Treatment of Skin	90 mins
7		Role of Proper Nutrition in Skin Care	90 mins
8	2	Basic Science of Hair	90 mins
9		Hair Types & Concerns	90 mins
10		Hair Care Routine	90 mins
11		Herbal Care of Hair	90 mins
12		Basic Cosmetic Treatments of Hair	90 mins
13		Herbal Treatment of Hair	90 mins
14		Role of Proper Nutrition in Hair Care	90 mins
15	3	Basic Science of Nails	90 mins
16		Nail Types & Concerns	90 mins
17		Nail Care Routine	90 mins
18		Herbal Care of Nail	90 mins
19		Basic Cosmetic Treatments of Nail	90 mins
20		Herbal Treatment of Nail	90 mins
21		Role of Proper Nutrition in Nail Care	90 mins
22	4	How to Stop Ageing?	90 mins
23	5	Genetics Based Wellness	150 mins
24	6	Assessment Day of Foundation Course in Cosmetic & Beauty Therapy	60 mins



ADD ON COURSE

ABENEX01: LEARN ENGLISH THROUGH FILMS

Total Hours: 36

Credit: 2

Course Objective

This course aims at developing the necessary skills required for effective and proper communication in English. Since the prescriptive method of learning English through grammatical rules and their respective exercises finds a few followers, this course aims at making the difficult part in language learning easy and interesting. Movies have a large following in general and as such it can effectively communicate with the young minds. The careful gradation in the well thought out modules can ideally impart skills like listening, speaking, reading and writing as well as higher order skills of creative writing and presentation.

Course Structure

MODULE 1: LISTENING AND COMPREHENSION

Students listen to clips, trailers, informative visual presentations on various topics – comprehends the meaning through repeated viewings and instructions from the teacher- complete the exercises.

MODULE 2: BASIC GRAMMAR

Only the very essential aspects of grammar required for effective communication are introduced to the students. Exercises are provided based on the visual materials they see. It is an involuntary way to acquire the language structure.

MODULE 3: SPEAKING AND PRESENTATION

Students are given opportunity to express their opinions and ideas on movies. Complete a dialogue differently from the film version and even enact certain roles.

MODULE 4: WRITING AND TRANSLATION

Analytical approach is taken to go in to the depths of certain popular movies-They imagine the possible course of a movie and write about them in a personal way. In the translation part with computer software students learn to translate from and to their mother tongue from English.



References

Listening and Comprehension

Movie clips from Bolt, Funny Cats, Indiana Jones, Out of Rainbow, Mr Bean, Pride and Prejudice, Silver Lining Playbook, The Great Gatsby etc followed by exercises for comprehension and listening.

Basic Grammar

Legally Blonde - Verb Patterns, Despicable Me 2 - Simple Past, Puss in Boots - Imperative Forms, Kung Fu Panda 2 & Madagascar 3, The Curious Case of Benjamin Button – Wish, Closed Circuit - Past Perfect Continuous, Ender's Game - Adjectives Describing Leaders, Under the Dome - Modals for Speculation, The Adventures of Tin Tin - Sequence Words, Narratives, Gravity - So x So That, The Secret Life of Walter Mitty – Wish, Frozen - Future Will x Simple Past, The Hunger Games Catching Fire - Relative Clauses, Cloudy with a Chance of Meatballs 2 - Describing Physical Characteristics, Flight Plan - Modals for Speculation, Zookeeper - Reported Speech, Cellular - Emphatic Do, Jack and the Giant Slayer - Modal for Drawing Conclusion MUST, The Nut Job - A Number of x The Number of

Speaking and Presentation

Students narrate the story line of movies they have watched

Exercises for dialogue reconstruction

Role enacting

Completing ideas and sentences

Writing and Translation

Software aided translation

Different writing exercises like movie reviews, alternative endings etc.

Question Paper Pattern (Time: 1½ hrs)

Division	Type	Marks
Part A	Listening and Comprehension exercises	20
	1. Listening to film clips and reconstruction - $5 \times 2 = 10$ Marks 2. Short essay on viewed clippings - $1 \times 10 = 10$ Marks	
Part B	Writing and Translation	20
	1. Review writing - $1 \times 10 = 10$ Marks 2. Film transcript/translation - $1 \times 10 = 10$ Marks	



Add on Course
SHORT FILM MAKING
 മലയാളവിഭാഗം

Fee: Rs.1000

Duration:36 Hrs

Student Intake: 40

ആമുഖം:

സിനിമയെന്ന മാധ്യമത്തെ മനസിലാക്കാനും അദ്ധ്യപനത്തോടൊപ്പം ആവർത്തിച്ചുള്ള കാഴ്ചകളിലൂടെ ഷോർട്ട് ഫിലിം നിർമ്മാണത്തിനുള്ള സാഹചര്യം ഒരുക്കാനും ഉപകരിക്കുന്ന രീതിശാസ്ത്രമാണ് ഈ കോഴ്സിൽ സ്വീകരിച്ചിരിക്കുന്നത്.

പഠനലക്ഷ്യം:

1. ഷോർട്ട് ഫിലിമുമായി ബന്ധപ്പെട്ട മേഖലകളിൽ അനുഭവവും പ്രായോഗികപരിജ്ഞാനവുമുള്ള ചലച്ചിത്രപ്രവർത്തകരെ പങ്കെടുപ്പിച്ച് ഹ്രസ്വചിത്രം നിർമ്മിക്കാനുള്ള അവസരം ഒരുക്കുക.
2. ദൃശ്യഭാഷയെ വൈദഗ്ധ്യത്തോടെ ഉപയോഗിക്കാനുള്ള പ്രായോഗിക പരിശീലനം നേടുക.

മൂല്യനിർണ്ണയരീതി:

അറ്റണ്ടൻസ്, കോഴ്സിന്റെ അവസാനം പ്രോജക്ടിന്റെ ഭാഗമായി വിദ്യാർത്ഥികൾ തയ്യാറാക്കുന്ന ഷോർട്ട് ഫിലിം, വൈവാ എന്നിവയുടെ അടിസ്ഥാനത്തിലാണ് മാർക്ക് നൽകുന്നത്.

ദൈർഘ്യം: 36 മണിക്കൂറാണ് കോഴ്സിനായി ക്രമീകരിച്ചിരിക്കുന്നത്.

മൊഡ്യൂൾ ഒന്ന്:

ദൃശ്യങ്ങളുടെ അടിസ്ഥാനസ്വഭാവം- ഹ്രെയിം, ഷോട്ട്, സീൻ, സീക്വൻസ്. വിവിധതരം ഷോട്ടുകൾ- ഏരിയൽ ഷോട്ട്, ലോങ്ങ് ഷോട്ട്, മീഡിയം ഷോട്ട്, ഫുൾ ഷോട്ട്, കൌബോയ് ഷോട്ട്, ക്ലോസപ്പ് ഷോട്ട്, എക്സ്റ്റീം ക്ലോസപ്പ്. ക്യാമറാ കോണുകൾ - ഹൈ ആംഗിൾ, ലോ ആംഗിൾ, മീഡിയം ആംഗിൾ. ക്യാമറാ ചലനങ്ങൾ - പാനിംഗ്, ടിൽട്ടിംഗ്, ട്രാക്കിംഗ്, ഹാൻഡ് ഹെൽഡ്, ക്രെയിൻ, ജിമ്മിജബ്.

നിറങ്ങൾ- നിറങ്ങളുടെ തെരഞ്ഞെടുപ്പ്.പ്രകാശവിന്യാസരീതികൾ.-വിവിധതരം ഫിൽറ്ററുകൾ, ഫിൽറ്ററുകളുടെ ഉപയോഗം.

മൊണ്ടാഷ്, മിസ് എൻ സീൻ

മൊഡ്യൂൾ രണ്ട്:

വിവിധതരം ലെൻസുകൾ- വൈഡ് ആംഗിൾ ലെൻസ്, നോർമൽ ലെൻസ്, ടെലിഫോട്ടോ ലെൻസ്, സൂം ലെൻസ്, ഒപ്റ്റിക്കൽ സെന്റർ, നോഡൽ പോയിന്റ്, ഫോക്കൽ ലങ്ത്. എഡിറ്റിംഗ് തത്വങ്ങൾ-മാച്ച് കട്ട്, ജമ്പ് കട്ട്, സ്ലോ എഡിറ്റിംഗ്, ഫ്രീസിംഗ്, ക്രോസ് കട്ടിംഗ്. സ്ലൈഡ് എഫെക്റ്റുകൾ - ഫെയ്ഡ് ഇൻ, ഫെയ്ഡ് ഔട്ട്, ഡിസ്ലോൾവ്, ഐറിസ്, വൈപ്പ്, റാംപിങ്. ആസ്പെക്റ്റ് റേഷ്യോ. 360 ഡിഗ്രീ നിയമം, 180 ഡിഗ്രീ നിയമം, 30 ഡിഗ്രീ നിയമം.

മൊഡ്യൂൾ മൂന്ന്:

തിരക്കഥ- വ്യത്യസ്ത നിലപാടുകൾ, രചനാപരമായ സവിശേഷതകൾ. തിരക്കഥാരചനയുടെ വിവിധഘട്ടങ്ങൾ- ആശയസാധനം, പ്രമേയം, ഇതിവൃത്തം, ഘടനാപരമായ രൂപരേഖ.

തിരക്കഥയുടെ ഘടകങ്ങൾ - സംഭാഷണം, ശബ്ദം, സംഗീതം, അഭിനയസൂചകങ്ങൾ. ഷൂട്ടിംഗ് സ്ക്രിപ്റ്റ്

മൊഡ്യൂൾ നാല്:

ലോകപ്രശസ്ത ഷോട്ട് ഫിലിമുകളുടെ പ്രദർശനവും ചർച്ചയുമാണ് ഈ മൊഡ്യൂളിൽ നടത്തേണ്ടത്.

കാണേണ്ട ചിത്രങ്ങൾ

- A Trip to the Moon – George Melles
- The Great Train Robbery – Edwin. S Porter
- Un Chien Andalou – Luis Bunuel
- An Occurance at Owl Creek Bridge – Robert Enrico
- Night and Fog – Alen Renai
- Love Field – Mathieu Ratthe

മൊഡ്യൂൾ അഞ്ച്:

1. **Project** -ഒരു ഹ്രസ്വചിത്രത്തിന്റെ ഷൂട്ടിംഗ് സ്ക്രിപ്റ്റ് തയ്യാറാക്കുക. ഈ ഷൂട്ടിംഗ് സ്ക്രിപ്റ്റിനെ ആധാരമാക്കി 5 മുതൽ 20 മിനിട്ടുവരെ ദൈർഘ്യമുള്ള ഹ്രസ്വചിത്രം തയ്യാറാക്കി സമർപ്പിക്കുക. വിദ്യാർത്ഥികളെ രണ്ട് ടീമായി തിരിച്ച് ഈ പ്രവർത്തനം നടത്താം.
2. **Screening**- വിദ്യാർത്ഥികൾ തയ്യാറാക്കിയ ഷോട്ട് ഫിലിമിന്റെ പ്രദർശനം നടത്തുക.
3. ഫിലിം ഫെസ്റ്റിവലുകളിൽ അയയ്ക്കുക.
4. സോഷ്യൽ നെറ്റ്വർക്കിംഗ് സൈറ്റുകളിൽ അപ് ലോഡ് ചെയ്യുക.

Scheme of Evaluation:

Internal Evaluation – 20 Marks

Project – 60 Marks

Viva – 20 Marks

റഫറൻസ്

1. അരവിന്ദൻ വല്ലച്ചിറ, തിരക്കഥ സിനിമയുടെ ബൃഹദിന്ദ്രം, SPCS, കോട്ടയം, 2010
2. ജിതേഷ് ടിസിനിമയുടെ വ്യാകരണം, ഒലിവ് പബ്ലിക്കേഷൻസ്, കോഴിക്കോട്, 200 ,0
3. മുരളീകൃഷ്ണവീഡിയോ ടെക്നിക്കൽ, ഡി സി ബുക്സ്, കോട്ടയം, 2006 ,
4. സാബു ശങ്കർ സിനിമയുടെ സൗന്ദര്യശാസ്ത്രത്തിന് ഒരാമുഖം, NBS ,കോട്ടയം2008 ,
5. സാജൻ തൈരുവപ്പുഴ, ഷോട്ട് ഫിലിം നിർമ്മാണം, മാതൃഭൂമി, കോഴിക്കോട്, 2011
6. Andre Bazan, What is Cinema, University of California Press,2004
7. Christopher Bowen, Thompson Roy, Grammar of the Shot, Wolfhome, 2009
8. Christian Metz, Language and Cinema, The Houge, Mouton & Co, 1974
9. Langford M J, Basic Photography, Focal Press, 1977

Course Coordinator

Ajeesh Thomas

Assistant Professor

Department of Malayalam

S B College Changanassery



ADD-ON PROGRAMME IN FINANCIAL JOURNALISM

Department: ECONOMICS

Fees: INR 1000

Student Intake: 40

Course Coordinator: JERIL TOM

Duration: 36 hours

Objectives of the Course

Financial journalism has become one of the most exciting and important areas in both print and electronic media and one of the fastest growing fields in terms of employability. It tracks, records, analyses and interprets the financial changes that take place both at national and global level. The certificate course in financial journalism that is proposed to be offered will impart reasonable knowledge to the students in reporting business, economic and financial news.

Course Outcome

By the end of the course, one will be able to report and analyse business and financial news, working across television, radio, print and online media.

Syllabus

Module 1 Fundamentals of Journalism 6 hours

Evolution of business and financial journalism- Ethics, Rules & Standards in Journalism-Regulator framework- Key Issues in Business and financial journalism - Journalism Practice-Online Journalism

Module 2 Introduction to Frequently used Economic & Business Concepts 14 hours

Economic growth – indicators – National Income concepts – Broad economic sectors – price indices and inflation - dynamics of gold and oil prices- Capital Markets-Derivatives, Futures and Options Trading- SENSEX & Other Indices -Debt Markets- Mutual Funds and Exchange Trade Funds-currency futures- concepts in monetary policy- Budgetary concepts-BOP concepts- foreign exchange rate- FOREX markets- foreign exchange regimes- government securities market- role and functions of RBI and SEBI

Module 3 Data processing & Analytical writing 10 hours

Economic/Business data sources - Data Reporting- Analysis of Financial Statements- Statistical tables-Frequently used charts/figures-Frequently used statistical measures- ratio- percentages -mean, growth rates- trend analysis- introduction to MS Excel-interpretation of data

Module 4 Financial Reporting in Practice 6 hours

Steps involved in collection and analysis of facts and information – interviewing –editorial production - language and style of writing – business news photography- fair practices in reporting

Module 5 Self-study

Exploring the global economy –WTO and Indian agriculture – Understanding business dynamics –tax reforms –basics of banking- functions of private corporates in India – India as a manufacturing hub

References

- Marie Kinsey (2019). Financial Journalism, Routledge. London
Tony Harcup (2014). A Dictionary of Journalism, Oxford University Press
Ibrahim Seaga Shaw (2016). Business Journalism: A Critical Political Economy Approach, Routledge
Keith Hayes (2013). Business Journalism: How to Report on Business and Economics, Apress
Peter Kjaer, Tore Slaatta (2007). Mediating Business: The Expansion of Business Journalism, Copenhagen Business School Press
Terri Thompson (2000). Writing About Business – The New Knight-Bagehot Guide to Economics & Business Journalism, Columbia University Press
Keith J. Butterick (2015). Complacency and Collusion: A Critical Introduction to Business and Financial Journalism, Pluto Press
N. Gregory Mankiw (2007). Economics: Principles and Applications, Cengage Learning India Private Limited.
Robert S. Pindyck, Daniel L. Rubinfeld (2017). Micro Economics, Pearson Education, Delhi, Hill, Delhi
N. Gregory Mankiw (2016). Principles of Macroeconomics, CENGAGE Learning Custom Publishing
Francis Cherunilam (2008). International Economics, Tata McGraw Hill, Delhi
V.K.Puri, S.K.Misra (2019). Indian Economy, Himalaya Publishing House
L M Bhole, Jitendra Mahakud (2017). Financial Institutions and Markets, McGraw Hill Education
Khan M F (2006). Indian Financial Institutions, Tata McGraw Hill Ltd
Prasanna Chandra (2017). Investment Analysis and Portfolio Management, McGraw Hill Education



VIDEO PRODUCTION AND SCIENCE COMMUNICATION

Fee: Rs.1000

Duration:36 Hrs

Student Intake: 40

Objectives

The broad objective of this programme is to impart basic knowledge about visual media and thereby familiarize students in video production and science communication. The course will give ample exposure in script writing and direction of video films both fiction and non-fiction. Besides the course will also orient the students in acquaint with science communication films.

The highlight of the course is to empower the students with practical experience. For this practicals the video production of film and outdoor programmes have been included.

The course will definitely boost the chances of our undergraduate students opting for video production and related fields.

Paper 1 Research

Importance of Research, programme Research, Source of information, Interviews, Interview Technique, Processing information and qualitative analysis.

Paper 2 Script Writing

Technique, Structure of Story-incident, Plot, Characterization, Opening, Theme development, Three and five structure, Plot line, different types of script, Scripting of Science Programmes, documentary and short fiction, Animation and educational programmes

Paper 3 Role of Director in fiction and non fiction films

Directing video films (fiction and non fiction), directing science communication films

Paper 4 Different formats of presentation in TV/Video

Paper 5 Directing indoor and out door programme

Practical /Field work

Paper 1 Research- Collection of data and analysis

Paper 2 Script writing workshop

Paper 3 Production of indoor / out door programmes

Paper 4 Video production- project

Reference

Technique of Screen play Writing- Eugene Vale

Documentry-Eric Banrow

Art of Dramatic Writing - Ergi Swan

Reality on Reels- Mike WoAlverton

Film Script Writing- Dwight Swain

The Technic of Television Production- Gerald Millerson

People, Scince and Technology - Charles Boyeletal

Scheme of Evaluation

Continuous Evaluation- 20(Attendance and Assignment)

Project - 60(At the end of the course, the students have to produce a video film as per the requirement of the course)

Viva - 20



Add on Courses

FREE AND OPEN SOURCE SOFTWARE - LaTeX

Department: Mathematics

Course Coordinator: Treesa Maria Kuriakose

Fee:Rs.1000/-

Duration: 36 hrs

Student Intake:20

Objectives of the Course:

To teach high quality type setting. It is most often used for medium to large technical or scientific documents but it can be used for almost any form of publishing.

Outcome:

Prepare documents containing mathematical formulas and symbols. Write articles in different journal styles. Prepare presentation using LaTeX.

Content/Syllabus:

Module 1: INTRODUCTION - 8 Hours

Installation of LaTeX, Features of Latex etc.

Module 2: LATEX ON WINDOWS - 12 Hours

Type setting in windows using LaTeX, Type setting using LaTeX in Linux etc.

Module 3: COMPILING - 8 Hours

How to compile different TeX files, common errors while compiling and corrections etc.

Module 4: BEAMER - 8 Hours

Power point presentations using LaTeX

REFERENCES

1. Leslie Lamport, LaTeX: A document preparation system, 2nd Edition, Addison-Wesley 1994
2. F Mittelbach, M Goossens, The LaTeX companion, 2nd Edition, 2004.



Add on Courses

QUANTITATIVE TECHNIQUES FOR COMPETITIVE EXAMINATIONS

Department: Mathematics **Course Coordinator:** Treesa Maria Kuriakose

Fee:Rs.500/-

Duration: 36 hrs

Student Intake: 40

Objectives of the Course:

To prepare students of all streams to approach competitive examinations. Detailed explanation and short cut method for solving problems are to be introduced to students, so that they can acquire better understanding of concepts and problem solving skill.

Outcome:

Apply quantitative reasoning and mathematical analysis methodologies to understand and solve problems. Students comprehend, work with, and apply general mathematical techniques and models to different real life situations, not just plug problem-specific data into a given formula.

Content/Syllabus:

Module 1 - 8 Hours

Types of numbers, Multiplication and division of numbers, Permutations and combinations – simple applications, Trigonometry introduction, Values of trigonometric ratios of 0° , 30° , 45° , 60° & 90° , Heights and distances – Simple cases - (application of $\sin x$, $\cos x$, $\tan x$, and their reciprocals only).

Module 2 - 10 Hours

Probability – Introduction – Sample spaces and events, Simple examples like tossing coin, tossing die etc., Number series, Odd man out, Number puzzles, Clock and calendar, Races and games, Inequality.

Module 3 – 8 Hours

HCF and LCM of numbers, Fractions, Squares and square roots, cube and cube roots, simplifications, Percentage, Profit and loss, Simple interest , Compound interest.

Module 4 - 10 Hours

Ratio and Proportion, Time and work, Partnership, Mixture, Work and wages, Time and distance, Elementary mensuration – Area and perimeter of polygons, Elementary Algebra.

REFERENCES:

1. M Tyra & K Kundan –Concepts of Arithematic, BSC publishing company Pvt. Ltd.
2. S K Sinha, S Satyanarayan, Col. J S Rana(Retd.)-The Complete Reference Manual for CMAT, Arihant Publications Ltd.



Tally ERP 9

Department of Commerce **Course Coordinators:** Mr Anishmon K A, Binu Antony

Fee: 3500

Duration: 72 Hours

Student Intake: 100

Objectives of the Course: To meet the demand for trained and professional accounting professionals in India. Give candidates the necessary skills to assess their own competence in carrying out a range of day-to-day computerized accounting routines and activities. Ensure an enhanced understanding of financial record keeping and computerized accounting using Tally ERP software.

Outcome:

The successful completion of this course will impart the basic computer skills to the students. Students will also be able to manage accounts manually and do computerised accounts in tally. This will course will help them to prepare final reports in accounting manually and over software

Content

Module 1 - Computer Basics

Understanding computers - Understanding Functional units - Understanding Window - GUI and OS- Understanding Files, folders and structure.

Module 2 - Manual Accounting

Understanding Fundamentals of Accounting - Rules of Accounting - Enter Transaction in Primary Book – Journal - Ledger Posting - Trail Balance preparations - Final Accounts Preparation - Adjustment Entries.

Module 3 - Tally ERP 9

Introduction Software Tally - Creation, Alteration and Deletion of Accounting & Inventory Masters - Transaction through vouchers - Purchase / sales management - Order management - Tally Accounting features - Tally Inventory features - Statutory and Taxations - Tally configuration - Import/Export and Backup/Restore – Reports.

DEPARTMENT OF BOTANY

ADD ON COURSE IN PLANT TISSUE CULTURE (54 Hours)

Course Objectives

The student should be able:

1. To familiarize with the tools and techniques of plant tissue culture
2. To understand the possibility for the production of elite plants
3. To apply the technique in micropropagation of plants
4. To establish a commercial micropropagation unit

Paper I. Fundamentals of Plant Tissue Culture 1 credit

Paper II. Applications of Plant Tissue Culture 1 credit

Paper III – Practical, Field Work, Project, Training 1 credit

Paper I – Fundamentals of plant tissue culture - 18 hours - 1 credits

1. Introduction and historical background of Plant Tissue Culture.
2. General Laboratory Techniques.-Maintenance of Laboratory.-Laboratory Space.-Culture Room Culture vessels and washing
3. Equipments Principle and working - pH meter, Hot air oven, Autoclave, LAF, Rotary Shaker.
4. Sterilization techniques- Dry heat sterilization, Wet Heat sterilization and Surface sterilization of explants-Surface sterilants -different Methods.
5. Media preparation, Composition of Nutrient Media, Role of components, Method of preparation of Stock solution, preparation of Growth regulators. Calculations
- 6 Inoculation -Laminar Air Flow, Procedure of inoculation
7. Incubation -Maintenance of inoculation record, subculture and temperature control, Humidity
8. Hardening Techniques.

Paper II. Applications of Plant Tissue Culture - 18 hours - 1 credits

1. Callus culture, suspension culture- choice of explants subculture Estimation of growth of cells in culture.
2. Regeneration -Shoot regeneration, Somatic embryogenesis.
3. Brief study of - Anther culture, Ovary culture, Meristem culture, Embryo culture, Protoplast culture, hybridization.
4. Somaclonal variation - genetic basis of somaclonal variation.
5. Synthetic seeds - Preparation and Importance.

Paper III practical - 18 hours - 1 credits

1. Preparation of Standard tissue culture media -MS and White's. Preparation of Stock solution, Preparation of hormones, cotton bungs.
2. Method of preparation of Media, Sterilization of media.

3. Collection of explants Sterilization, inoculation of explants-leaf; root, shoot, anther, ovary and embryo.
4. Preparation of synthetic seeds
5. Maintenance of cultures, Sub culturing at periodical intervals.
6. Hardening of rooted plantlets.

Field work, project, training

Collection of plant Material with medicinal and economic importance. Establishment in field, Selection of explants, contamination free cultures

References

1. Keshavachandran R & Peter KV (2008) Plant Biotechnology: Methods in Tissue Culture and Gene Transfer. Orient & Longman (Universal Press)
2. S S Bhojwani, M K Razdan (1996). Plant tissue culture: Theory and Practice. Elsevier.
3. L Gamborg, G C Philips (Eds.) (2005). Plant cell, tissue and organ culture: Fundamentals. Narosa Publishing House.
4. S Ignacimuthu (2006). Biotechnology: An introduction. Narosa Publishing House.
5. Edwin F George (1993) plant propagation by tissue culture part I and II The technology. Exegetics ltd.
6. Kalian Kumar De (2003) An introduction to plant tissue culture, New central book agency pvt. Ltd.

EVALUATION

Paper I. Fundamentals of Plant Tissue Culture 1 credit

Paper II. Applications of Plant Tissue Culture 1 credit

Paper III – Practical, Field Work, Project, Training 1 credit

- There shall be a maximum of four papers of 100 marks for the course
- The fourth paper shall be the field work/project work/training. The other three papers shall be theory/and practical papers.
- For the first three papers 50% marks will be set apart for continual internal evaluation and 50% marks will be for the final written examination.
- A separate minimum of 50% marks should be secured for a pass in both internal and written examination.
- The report of the field work/project work/training will be evaluated by the duly appointed examiners and the same may be presented before the career orientation council for approval at the end of the course.
- Students who failed to attain the minimum required marks in the continual internal evaluation should repeat the course, and those failed in the written examination can appear along with subsequent junior batch.
- The continual evaluation marks for each paper may be recorded in form A and the consolidated marks for each paper in form B. The grading can be done in the following way:

- Range of % of total marks Grade

[90 – 100] Outstanding (A+)

[80 – 89] Excellent (A)

[70 – 79] Very good (B+)

[60 – 69] Good (B)

[50 – 59] Satisfactory (C)

Below 50% Failed

- The continual evaluation marks can be awarded in the following manner:

Test papers (minimum 2) 20 marks

Seminar/viva 10 marks

Assignments 10 marks

Attendance 10 marks

Total **50 marks**

MODEL QUESTION PAPER

S. B. COLLEGE CHANGANACHERRY ADD-ON COURSE EXAMINATION PLANT TISSUE CULTURE

Time – 2 Hrs.

Max. mark - 40

Part A

(Answer all questions. Each carrying 1 mark)

1. Give an example for a synthetic auxin
2. What is the pH of MS medium?
3. Name any chemical fusogen
4. Give the sterilization temperature and pressure
5. What is the use of polyoxy ethylene?
6. What are cybrids?
7. What is callus?
8. What is the use of EDTA in MS medium?
9. What is androgenesis?
10. Who is the father of plant tissue culture?

Part B

(Answer any 15 questions. Each carrying 2 marks)

11. Differentiate between dedifferentiation and redifferentiation
12. What is indirect somatic embryogenesis?
13. What are hydrated synseeds?
14. What is the relevance of synthetic seeds?
15. Differentiate between wet heat and dry heat sterilization
16. How protoplast is isolated for protoplast culture?
17. What are the applications of meristem culture?
18. What is surface sterilization?
19. Briefly explain the components of MS medium
20. Write a short note on hormones used in tissue culture
21. Differentiate between habituation and acclimatization
22. List the applications of tissue culture?
23. What is embryo rescue?
24. Differentiate between batch callus culture and continuous callus culture.
25. What is paper raft nurse technique?
26. Explain organogenesis
27. Explain the significance of haploid culture
28. What is somaclonal variation?
29. What are the limitations of tissue culture?
30. Explain about the products of somatic cell hybridization.



ADD ON COURSE -DEPT OF ZOOLOGY
ORNAMENTAL FISHERIES & AQUARIUM MANAGEMENT

Fee: Rs.1000

Duration:36 Hrs

Student Intake: 30

Paper-I- Ornamental fisheries (18Hrs)

1. Introduction, Present status and history of ornamental fish culture.(1Hr)
2. Fish - General Morphology & Structure .(2Hr)
3. Fresh water ornamental fishes & Brief account of Salt water Ornamental fishes .(3Hrs)
4. Physiochemical Parameters in Fish culture.(2Hrs)
5. Nutrition & Feeding of aquarium fishes. (2Hrs)
6. Breeding of Ornamental Fishes in general. (1Hrs)
7. Induced breeding-Principle & Methods. (2Hrs)
8. Aquarium- Objectives & Types. (3Hrs)
9. Harvesting and transportation of ornamental fishes. (1Hrs)
10. Marketing of ornamental fishes. (1Hrs)

Paper-II- Aquarium Management. (12 Hrs)

11. Identification of Ornamental Fishes. (2Hrs)
12. Common Aquarium Plants. (2Hrs)
13. Equipment Used In Aquarium. (2Hrs)
14. Setting up of an aquarium.(2Hrs)
15. Common Diseases of Aquarium Fishes. (2Hrs)
16. Aqua scaping (2Hrs)

One day visit to any well-established commercial aquarium fish culture unit. An individual report of visit is to be prepared and submitted along with record during practical evaluation.

Evaluation of the course

Theory Examination (Objective type) of 1Hr Duration for 30 Marks.

Viva voce – 10 Marks.

Report of Institutional visit- 10 Marks



DEPARTMENT OF MANAGEMENT STUDIES
ADD ON COURSE - FUNDAMENTALS OF MANAGEMENT

Fee: Rs.1000

Duration:36 Hrs

Student Intake: 40

COURSE OVERVIEW:

This course is an introduction to the fundamentals of management. It provides a framework for understanding the factors that influence how organizations evolve, function, and perform.

COURSE OBJECTIVES:

- Providing conceptual understanding of management concepts .
- Familiarizing the students with the contemporary issues in management.
- Enable the students to apply the concepts in the organization .

METHODOLOGY:

Lectures, Case Studies, Role Plays, Group or Class Learning Activities, Experiential Exercises

ASSESSMENT:

CASE ASSIGNMENTS: Throughout the course, students will be required to analyze two cases.

ASSIGNMENT : MANGEMENT CONCEPTS PAPER: Students will be required to write a management concepts paper covering the topics of management principles and concepts.

EXAMS: There will be two exams -- a mid-term and a final exam. The mid-term exam is multiple-choice and will test the student's comprehension of textbook material from the first half of the course. The Final Exam is essay questions that test the student's comprehension and application of the fundamentals of management practice.

SYLLUBUS:

UNIT-I Nature of Management

Tasks of a Professional Manager - Social Responsibilities of Business – Manager and Environment – Systems Approach to Management – Levels in Management – Managerial Skills.

UNIT-II Planning

Steps in Planning Process – Scope and Limitations – Short Range and Long Range Planning – Flexibility in Planning – Characteristics of a Sound Plan – Management by Objective (MBO) – Decision Making – Techniques and Processes.

UNIT-III Organising

Organisation Structure and Design – Authority and Responsibility – Delegation of Authority- Decentralisation – Formal and Informal Organisation.

UNIT-IV Staffing, Directing and Controlling

Overview of Staffing and Directing functions – Controlling – Pre requisites of Control Systems – Control Process – Methods, Tools and Techniques of Control.

UNIT-V Organisational Creativity and Innovation

Management of Innovation – Invention vs. Innovation – Goals of Innovation – Sources of Innovation- Latest Developments in Management

REFERENCES:

1. Koontz & Weirich, “Essentials of Management: An International perspective”, 8th Edn. Tata McGraw-Hill, New Delhi, 2009.
2. Koontz H. Weihrich H “Essentials of Management “ Tata McGraw-Hill, 13th Edition 2001
3. Stephen P. Robbins & David A. Decenzo, “ Fundamentals of Management”, Pearson Education, New Delhi, 3rd Edn. 2001.
4. Tim Hannagan, “Management Concepts and Practices”, Mac Millan India Ltd. 1997.

Add on Courses
WEB DESIGNING

Department: Computer Science

Course Coordinator: Dhanya C.Nair

Objectives of the Course:

This course will introduce you to the realm of web design.

- You'll learn tools to create international standard websites by your own.
- You will discover how does web works really, what makes web sites work.
- Simple and impressive design techniques, from basics till advanced to focus on goal oriented and user centric designs.
- How to and where to start research, planning for website & actually build excellent web sites.
- Train the student in Adobe Photoshop to create new visuals, edit images, add effects and overlays, and eventually create professional designs.

Outcome: Develop skills in creating web sites.

Gain experience in correcting, improving and repairing images

Content/Syllabus: ADD on Course – Web designing

✓ **HTML**

Module 1: Core Elements and Attributes-Basic Text Formatting-Presentational Elements- Lists Basic Links-Adding Images, Using Images as Links

Module 2: Basic Table elements and Attributes-Advanced Tables

Module 3: Forms- Form Controls- Text Input, Buttons, Checkboxes, Radio Buttons, Select Boxes, File Select Boxes

✓ **Dreamweaver**

Module 1 : The Dreamweaver Interface -Creating a Web Site, Making New Web Pages , Playing with Text , Inserting Images Creating Links , Internal and External Links , Named Anchors , E-mail Address

Module 2 : Planning Your Web Site Layout -Preparing Your Layout ,Managing Links , Changing and Moving Links

Module 3 : Using Graphics - Understanding Web Graphics ,Inserting Images into your Web Site ,Aligning Images , Changing Text Wrapping for an Image ,Setting a Background Image for your Web Page

Module 4 : Using HTML Tables- Creating Tables in Layout View , Editing Tables in Layout View ,Table Options, Cell Options ,Formatting Tables , Aligning Table Columns

✓ **Photoshop CS6**

Module 1: Getting Started with Photoshop - Exploring the Toolbox, The New CS6 Applications, Bar & the Options Bar, Exploring Panels & Menus, Creating & Viewing a New Document, Customizing the Interface, Setting Preferences

Module 2 : Working with Images- Zooming & Panning an Image , Working with Multiple Images, Rulers, Guides & Grids , Undoing Steps with History , Adjusting Color with the New Adjustments Panel , The New Masks Panel & Vibrance Color Correction Command, The New Note Tool & the Save for Web & Devices Interface

Module 3 : Resizing and Cropping - Understanding Pixels & Resolution, Resizing for Print & Web , Cropping & Straightening an Image ,Adjusting Canvas Size & Canvas Rotation

Module 4 : PHOTO RETOUCHING :- The Red Eye Tool , The Clone Stamp Tool , The Patch Tool & the Healing Brush Tool , The Spot Healing Brush Tool , The Color Replacement Tool , The Toning & Focus Tools

References:

The Complete Reference HTML & CSS Fifth Edition :Thomas A .Powell

Dreamweaver CS6 by IN EASY STEPS: McGraw Hill

Photoshop CS6 by IN EASY STEPS: McGraw Hill

Fee: 1000

Duration:36 hours

Student Intake:30(2 batches)

German Basic course

AIM: The aim of the course is to provide the student with a useful control of the spoken German language and of a basic vocabulary. Each unit contains a set of basic sentences, notes on pronunciation and notes on grammar. After each unit the students will be provided with a maximum of additional exercises in using the forms and patterns of the language learned in the basic sentences.

Table of contents

Unit 1-8

Unit 1

1. Basic sentences

(a) Making contacts

To welcome, to address, to introduce oneself/others, to thank, to bid farewell

(b) Giving information

Ask for information and to give it, country names, to narrate about your native place, numbers

2. Notes on pronunciation

Phonetics - Quality and quantity of vowels, A sound, E sound, Ü sounds, Ö sounds, accentuation of the word, sentence accent and melody

Orthography- The alphabet, sp, st, ch, äh, öh, üh, tsch ,ts ,tz, chs, ng, ig,qu,ck,ss, ß

3. Notes on grammar

Question words, Sentence structure, word order in the main clause, the pronouns Ich, Du, Sie

Unit 2

1. Basic sentences

(a) Making contacts

Talk a bit about yourself

(b) giving information

Phone number, number names, social media, different places and languages, age, professions, neighbourhood services

2. Notes on pronunciation

Diphthongs

3. Notes on grammar

Verbs and their forms, placing of the verb in the sentence (first second and last place), Noun Gender, verb- infinitive, verbs with prefixes- separable and inseparable

Unit 3

1. Basic sentences

(a) Making contacts

To request, to thank

(b) Giving information

To ask for correctness (is this, yes, no)

2. Notes on pronunciation

Long and short vowels

3. Notes on grammar

Articles, Noun plural, Negation (nicht, kein)

Unit 4

1. Basic sentences

(a) Making contacts

To ask how one is, to give information about it, to present facts, to narrate, to report, to describe

(b) Giving information

To ask for information in a shop

2. Notes on pronunciation

Pronouncing e and ö

3. Notes on grammar

Komposita, article singular/plural, the verb möchte

Unit 5

1. Basic sentences

(a) Making contacts

Daily or yearly routines

(b) Giving information

Weekdays, expressing time, time of the day

2. Notes on pronunciation

a to ä, verbs and exceptions

3. Notes on grammar

More about verbs, preposition um/am, details of time, manner and place in a sentence

Unit 6

1. Basic sentences

(a) Making contacts

To congratulate, to wish luck

(b) Giving information

I and my surroundings

2. Notes on pronunciation

The letter ü

3. Notes on grammar

Nominativ/akkusativ, articles, indefinite article ein, the verb mögen

Unit 7

1. Basic sentences

(a) Making contacts

To invite, to accept

(b) Giving information

My family, colours

2. Notes on pronunciation

Ich laut/ ach laut

3. Notes on grammar

Possessive pronouns singular, auxiliary verbs, the verbs haben and sein

Unit 8

(1) Basic sentences

(a) Making contacts

To express regrets

(b) Giving information

Rooms, houses, places to live, neighbourhood

(2) Notes on pronunciation

German s, z, ng, nk

(3) Notes on grammar

The verb wollen, adjectives, must/must not (darf, darf nicht), possessive pronouns plural



ADD ON COURSES

BCHEX01: INSTRUMENTAL METHODS OF ANALYSIS FOR BIOLOGISTS, CHEMISTS AND PHYSICISTS

Credit: 2

Total Hours: 36

Objectives: The modern science thinks and works in the lemon light of an interdisciplinary approach. The department of Chemistry at St Berchmans offers an Extra Credit Course entitled Instrumental Methods of Analysis for Biologists, Chemists and Physicists. It introduces a variety of modern analytical techniques which include Mass Spectrometry; UV-Visible, IR, and NMR Spectroscopy; High Performance Liquid Chromatography, Gas Chromatography, Column, Paper and Thin Layer Chromatographic techniques which are useful in all branches of basic science. Besides these, the students can learn the basics of analytical instruments such as pH Meter, Potentiometer, Conductivity Meter, Flame Photometer, Atomic Absorption Spectrometer and Electrochemical Analyzer.

The exposure to modern instrumentation will be advantageous to one seeks career in industry, teaching and research.

Module 1: UV-Visible Spectroscopy

Electromagnetic spectrum, Electronic transitions in molecules, Absorptions, Chromophores, Auxochromes; Instrumentation, UV-Visible Spectral pattern, Finding absorption maxima, Measurement of absorbance and its applications.

Module 2: Infrared Spectroscopy

Vibrations in molecules, Functional Groups and Characteristic Vibrations, Representation of IR spectra; Instrumentation, Applications: Recording and Interpretation of IR spectra.

Module 3: NMR Spectroscopy

Different types of nuclei in nature, classification by spin quantum number; Larmor precession of bosons and fermions; Nuclei in molecules, characterization of molecules by NMR spectroscopy, NMR spectrum, interpretation, and applications in science.

Module 4: Mass Spectrometry

General Principles, Mass Spectral Patterns, Interpretation with examples, Applications.



Module 5: Chromatography

Basic principles of paper, thin layer and column chromatography. Gas Chromatography, HPLC. Applications, Experiments in paper, thin layer and column chromatography at the laboratory.

Module 6: Atomic Absorption Spectrometry

Basic principles and applications. Detection copper, chromium and iron in natural samples using AAS.

Module 7: Electrochemical Analyzer

Basic theory and applications. One or two experiments to familiarize the machine.

Module 8: Elementary Analytical Techniques

Theory and applications of pH meter, Salinometer, Conductivity Meter, Potentiometry, Turbidimetry and Flame Photometer. Experiments.

Reference

1. D. A. Skoog, F. J. Holler, S. R. Crouch, *Principles of Instrumental Analysis*, 6th Edn., Thomson Brooks/Cole, **2007**
2. H. H. Willard, L. L. Merritt, J. A. Dean, *Instrumental Methods of Analysis*, 5th Edn., Van Nostrand, **1974**.
3. G. D. Christian, *Analytical Chemistry*, John Wiley & Sons, 6th Edn, **2004**
4. D. A. Skoog, D. M. West, F. J. Holler, S. R. Crouch, *Fundamentals of Analytical Chemistry*, 8th Edn., Thomson Brooks/Cole, **2007**
5. G H Jeffery, J Bassett, J Mendham, R C Denney, Longman, *Vogel's Text Book of Quantitative Chemical Analysis*, **1989**

Question Paper Pattern for Written Examination (Time: 1½ hrs)

Division	Type	No. of Questions to be Answered	Mark for Each Question	Total Marks
Part A	One word	10 out of 13	1	10
Part B	Short answer	5 out of 8	2	10
Part C	Short Essay	4 out of 6	5	20
Grand Total				40

Certification in Digital Marketing and Branding Skills

1. Significance of the Course

Digital marketing is the most trending content sharing, marketing and advertising strategy that uses internet-based technologies such as search engines, social media etc to reach out to customers and audiences. Digital marketing is predicted to overtake the marketing expenditure in traditional media by the end of this financial year. The reason for this is, each and every brand is trying to engage with its customers online, especially when the pandemic has confined everyone to home. The increasing number of smartphone users and the availability of high-speed internet is another factor that has boosted the digital marketing trend.

There are 760 million smartphone users in India right now and it is predicted that the number would rise to a billion smartphone users in 3 years. Google India's revenue in the previous financial year was 256 billion rupees which rose 24% when compared to the previous year. Meanwhile, the social media giant Facebook had an annual increase of 43% in its revenue from India. All these show how digital marketing has emerged as a key player in every business and how enormous the job and entrepreneurial opportunities digital marketing offers. And this is why digital marketing should be an essential part of every course in universities.

2. Objectives

The certification program helps students to have an understanding and experience in digital marketing. Firms from every sector are in search of digital marketing experts so that they can have an advantage over their competitors since most of the business comes from online leads. So, the keyword digital marketing on a resume gives an extra edge to the job hunter and the chances of getting hired doubles. The course is designed in such a way that any student from any stream can benefit from the program in terms of knowledge, skill and job opportunities.

To plan an effective digital marketing strategy it is important to know the platforms, their algorithm, content suitable for each platform and how to create such content. This certification is designed to equip students to be the best content creators as well as digital marketing specialists. Additionally, this course helps the students to get certified by industry leaders like Google, Facebook and Microsoft.

3. Outcomes

On completion of this certificate programme, the students will be able to demonstrate these much-needed skills in today's world and the job market today,

1. Job-related skills - Trillion-dollar corporates and the local startups alike are in search of experts in digital marketing and the students are equipped with skills sought by the job market.
2. Entrepreneurial skills - The students will acquire an understanding of the dynamics of the digital marketing space and they will be capable of beginning their own firms which do not require any capital on a small scale.
3. Communication skills - The students learn how to communicate effectively and efficiently in the digital space across mediums with an understanding of the algorithm of the search engines and social media.
4. Interpersonal skill - Engagement with the audience is an important factor with regard to social media communication and the students learn the effective communication strategies for the present era.
5. Social media awareness - The students will learn how social media works in such an engaging way that each and every person is glued to it. This knowledge would help them to be aware of and be cautious of the addictive nature of social media.

4. Modules

Unit 1. Basics of Digital Marketing - Marketing, advertisement, history of the internet and digital advertisements, social media, digital marketing, algorithms, visibility, engagement, traffic, inbound - outbound marketing, digital marketing vs traditional marketing. (*Hours: theory - 4*)

Unit 2. Content creation for online platforms- types of content: written, audio, picture, video; content and marketing, optimising content for web and for social media, influencers, connecting with influencers, headlines and data. (*Hours: theory - 2, practical - 8*) *Practical: audio-video production.*

Unit 3. Web marketing - web development with WordPress/Vix CMS, domain name, server, hosting, plugin, Google AdSense, Google trends, blogging - content writing, Adwords, keyword planner, Search Engine Optimization, off-page optimization, backlink, Google Analytics, competitor and website analysis, keyword analysis, cookies, page ranking, domain authority. (*Hours: theory - 6, practical - 6*) *Practical: web development.*

Unit 4. Social media marketing - optimization, social media analytics, product marketing in Google Ads, Instagram, Facebook, YouTube video marketing, Twitter campaign, LinkedIn campaign, remarketing; App Store Optimization. (*Hours: theory - 4, practical 1*) *Practical: Analytics.*

Unit 5. Freelancing - guidance to Google, Microsoft Bing, and HubSpot certifications. Freelancing; email marketing, affiliate marketing, mobile marketing, digital marketing automation. (*Hours: theory - 4, practical - 1*) *Practical: Affiliate marketing.*

5. Total Hours: 36 (Theory: 20 + Practical: 16)

6. Valuation: Internal and External assessments

Assignments: Content creation in groups at the end of each module.

7. Suggested Reading

1. Chaffey, D., & Smith, P. R. (2017). *Digital marketing excellence: planning, optimizing and integrating online marketing*. Routledge.
2. Chaffey, D., & Ellis-Chadwick, F. (2019). *Digital marketing*. Pearson.
3. Charlesworth, A. (2018). *Digital marketing: A practical approach*. Routledge.
4. Dodson, I. (2016). *The art of digital marketing: the definitive guide to creating strategic, targeted, and measurable online campaigns*. John Wiley & Sons.
5. Gupta, S. (2018). *Digital marketing*. McGraw-Hill Education.
6. Hanlon, A. (2018). *Digital marketing: Strategic planning & integration*. Sage.
7. Hofacker, C. F. (2018). *Digital marketing: Communicating, selling and connecting*. Edward Elgar Publishing.
8. Kingsnorth, S. (2019). *Digital marketing strategy: an integrated approach to online marketing*. Kogan Page Publishers.
9. Parkin, G. (2016). *Digital marketing: Strategies for online success*. Fox Chapel Publishing.
10. Ryan, D. (2016). *Understanding digital marketing: marketing strategies for engaging the digital generation*. Kogan Page Publishers.

Syllabus Prepared by:

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COSMETIC MANAGEMENT - Syllabus

Sl. No	Module	TOPICS	TIME
1	1	Basic Science of Skin	90 mins
2		Skin Types & Concerns	90 mins
3		Skin Care Routine	90 mins
4		Herbal Care of Skin	90 mins
5		Basic Cosmetic Treatments of Skin	90 mins
6		Herbal Treatment of Skin	90 mins
7		Role of Proper Nutrition in Skin Care	90 mins
8	2	Basic Science of Hair	90 mins
9		Hair Types & Concerns	90 mins
10		Hair Care Routine	90 mins
11		Herbal Care of Hair	90 mins
12		Basic Cosmetic Treatments of Hair	90 mins
13		Herbal Treatment of Hair	90 mins
14		Role of Proper Nutrition in Hair Care	90 mins
15	3	Basic Science of Nails	90 mins
16		Nail Types & Concerns	90 mins
17		Nail Care Routine	90 mins
18		Herbal Care of Nail	90 mins
19		Basic Cosmetic Treatments of Nail	90 mins
20		Herbal Treatment of Nail	90 mins
21		Role of Proper Nutrition in Nail Care	90 mins
22	4	How to Stop Ageing?	90 mins
23	5	Genetics Based Wellness	150 mins
24	6	Assessment Day of Foundation Course in Cosmetic & Beauty Therapy	60 mins