



Newman College Thodupuzha

Affiliated to Mahatma Gandhi University
Reaccredited by NAAC with A grade (Cycle 3, CGPA 3.32)

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Phone: 04862-222686   

Criterion I

Curricular Aspects

1.2

Academic Flexibility

1.2.1

**Curriculum of Certificate / Value added course with
Assessment Procedure**

2020-2021

Submitted to



National Assessment and Accreditation Council



Curriculum for Certificate/Value added programs with Assessment procedure

List of Courses for 2020-2021

Sl. No	Name of the course	Number of students completed the course	Refer page no
1	Certificate Course in Human Resource Management	49	3
2	Certificate Course on Research Methodology	62	5
3	Certificate Course on Business English	64	7
4	Certificate Course on English for Communication	63	9
5	Certificate Course in English for Journalism	67	11
6	Certificate Course: Introduction to Museums and Museology	51	13
7	Certificate Course on Educational Psychology	55	16
8	Certificate Course : DTP in Malayalam and English	49	20
9	Certificate Course on Floriculture Management	28	22
10	UGC sponsored career oriented Add on Course on Plant Tissue Culture	27	25
11	Certificate Course on Analytical Techniques (Applied) in Chemistry	58	28
12	Certificate Course on Programming in Python	42	30
13	Certificate Course on Python for Scientific Computing	22	32
14	Certificate Course on Aquarium Management	32	34
15	Certificate Course on Field Entomology	39	37
16	Certificate Course on Computerised Accounting and Taxation	27	39
17	Certificate Course on Health Care Management	140	42
18	Certificate Course on E Commerce	143	44
19	Certificate Course on Human Resource Management	144	48

1.Certificate Course on Human Resource Management Curriculum with assessment procedure

COURSE OUTCOME

By the end of the course the student will be able to:

1. get familiar with the importance of human resource management as a field of study and as a central management function;
2. understand the implications for human resource management and its principles and techniques
3. know the elements of the HR function
4. apply the principles and techniques of human resource management gained through this course to the discussion of major personnel issues and the solution of typical case problems.

Syllabus

Module I: Importance of Human Resource Management - changing environment and work ethics- Role of human resource manager – Human resource policies — professional activities - training and development.(10 Hrs)

Module II: Human Resource planning - models for HR planning - Individuals - work motivation - motivational processes – employee participation - prestige and morale-measurement and improvement of morale .(10 Hrs)

Module IV: Compensation policy - pay and benefits - promotion and transfer of employees- Recruitments and selection –placement – induction - methods of recruitment (10 Hrs)

Readings

1. Dessler, *Human Resource Management*, 11th edition, Pearson Education, Delhi
2. Biswanath Ghosh, *Human Resource Development and Management*, Vikas Publishing House, Delhi
3. Anuradha Sharma & Aradhana Khandekar (2006), *Strategic Human Resource Management*, Response Books, New Delhi
4. Bohlander and Shell (2007), *Human Resource Management*, Cengage Learning, Delhi.
5. Aswathappa, *Human Resource and Personnel Management*, 3rd edition, Tata McGraw Hill, Delhi



Criterion 1

**1.2.1 Curriculum of Certificate/Value added programs
with assessment procedure**

Assessment and evaluation:

Mode of assessment: Course end examination

Theory

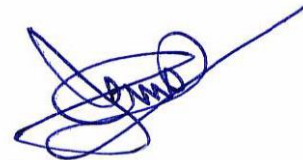
- Mode of assessment: Course end examination
- Marks: 40
- Minimum marks or pass: 15
- Assignment: 10

Number of students passed: 49



Xavier Kurian P

Course Coordinator

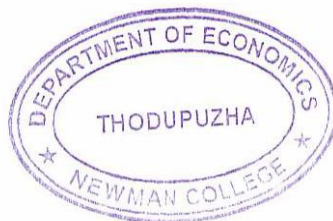


Dr. Jenni K Alex

Head of the Department



**Dr. THOMSON JOSEPH
PRINCIPAL
NEWMAN COLLEGE
THODUPUZHA.**



2. Certificate Course on Research Methodology (Started in 2018-19)

Curriculum with assessment procedure

SYLLABUS

Module I

Definition and Scope of Research

- Definition of “Research”
- Qualities of a good researcher
- Key terms in research: investigation, exploration, hypothesis, data, methods and techniques, results and findings, Variables

Module II

Materials and Tools of Research:

- Print: Books, Journals, International Abstract, International Conference Proceedings, etc.
- Audio-visual resources
- Interviewing
- Field Studies
- Web resources

Module III

Selection of Topic:

- Area of Research: Genre, Period, Region, Author, Texts, Approach
- Intra-disciplinary/Interdisciplinary
- Background Study
- Studies of Literatures
- Framing of Topic-statement

Module IV

Writing Research Paper

- Sources
- Note-making
- Socio-Legal issues: Originality, Integrity, Plagiarism
- Format of Writing

Module V

Documentation:

- Format: Citation format for print and non-print sources (MLA) in the text
- Preparing list of Works Cited
- Foot notes and End notes
- Quotations and Acknowledging the Sources
- Style Format: Spelling, punctuation, italics, abbreviations



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Criterion 1

**1.2.1 Curriculum of Certificate/Value added programs
with assessment procedure**

Course Outcome:

- a) Better understanding of research methodology
- b) Effective use of methodologies in writing the dissertation

Assessment and Evaluation

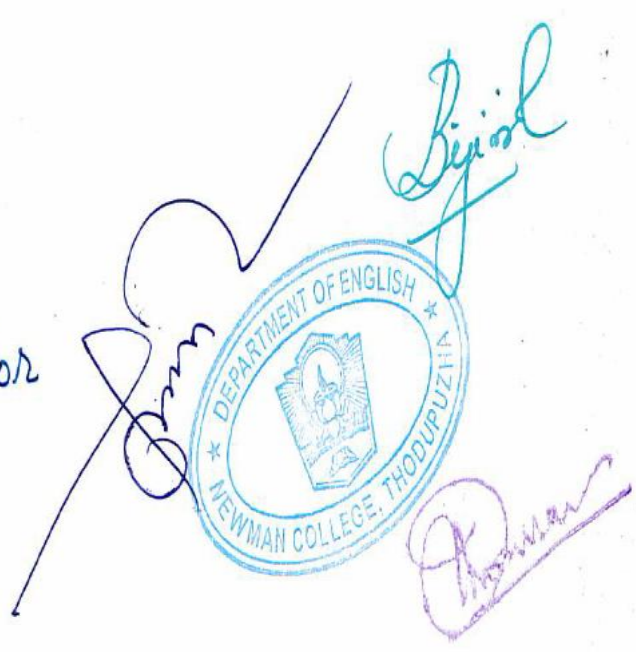
Mode of assessment: Course end examination

Marks: 40

Minimum marks for pass: 16

Number of students Passed: 62

Course Coordinator



3. Certificate Course on Business English Curriculum with assessment procedure

Learning Outcomes:

After the completion of the course, the learner will be able to

- a) achieve interpersonal communication skills
- b) communicate with confidence and listen to others to build rapport
- c) understand and practice proper use of body language
- d) volunteer discussions and leave positive influence on others
- e) enhance their professional skills

SYLLABUS

Module 1

Reading Skills: Vocabulary: Words used in daily conversation but often neglected or wrongly used, comprehension passages and answering, Reading and understanding articles from Literary, Journalistic, Scientific and Management field, Skimming, Scanning Techniques, Proof reading, Enhance speed reading The SQ3R Reading Strategy.

Module 2

Writing Skills: Grammar: Tense: Formation and application; Affirmative /Negative/Interrogative formation, Modals and their usage, Parts of speech, Conditional sentences, Direct and indirect speech, Active and passive voice, Writing letters, emails for job placement, resume, letter to the editor, Writing enquiries, complaints and replies, representations, writing narrations

Module 3

Speaking Skills: Understanding and employing 7 Cs of communication in conversation, Narrating incidents, stories, situation, and appearance, Group Discussion, Mock Interview, Making Presentations, Telephonic Conversation, Extempore, Debate, Speech

Module 4

Listening Skills: Types of Listening, Qualities of a good Listener, Barriers of Listening, Listening to audio of news/ weather forecasts/ reports, Listening to announcements at air ports and railway stations, Listening and retaining dialogues from films, listening to a specific audio and answering the questions



Criterion 1

*1.2.1 Curriculum of Certificate/Value added programs
with assessment procedure*

Assessment and Evaluation

Mode of assessment: Course end examination

Marks: 40

Minimum marks for pass: 16

Number of students Passed: 64


Jacob ... Princy Jacob
(Co-ordinator)
Thomas

4. Certificate Course on English for Communication

Curriculum with assessment procedure

Learning Outcomes

After the completion of the course, the learner will be able to

e) develop both active and passive vocabulary

f) articulate words with correct pronunciation

g) get accuracy in grammar

Syllabus

Module 1

Reading Skills: Vocabulary: Words used in daily conversation but often neglected or wrongly used, comprehension passages and answering, Reading and understanding articles from Literary, Journalistic, Scientific and Management field, Skimming, Scanning Techniques, Proof reading, Enhance speed reading The SQ3R Reading Strategy.

Module 2

Writing Skills: Grammar: Tense: Formation and application; Affirmative /Negative/Interrogative formation, Modals and their usage, Parts of speech, Conditional sentences, Direct and indirect speech, Active and passive voice, Writing letters, emails for job placement, resume, letter to the editor, Writing enquiries, complaints and replies, representations, writing narrations

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Speaking Skills: Understanding and employing 7 Cs of communication in conversation, Narrating incidents, stories, situation, and appearance, Group Discussion, Mock Interview, Making Presentations, Telephonic Conversation, Extempore, Debate, Speech

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Reference Books

M. Bhatnagar and N. Bhatnagar. *Communicative English for Engineers and Professionals*. New Delhi: Pearson Education, 2010.

M. Raman and S. Sharma. *Technical Communication*. 3rd Ed. New Delhi: OUP, 2015.3.

P. Cullen. *Cambridge English: Vocabulary for IELTS*. Cambridge: Cambridge University Press, 2015.4.

R. Brown and L. Richards. *IELTS Advantage: Writing Skills*. Surrey: Delta Publishing, 2011.5. R. Murphy. *Intermediate English Grammar*. 2nd Ed. Cambridge: Cambridge University Press, 1994

Assessment and Evaluation

Mode of assessment: Course end examination

Marks: 40

Minimum marks for pass: 16



4. Certificate Course in English for Journalism Curriculum with assessment procedure

Outcome of the course:

1. To conduct effective interviews
2. To train the students to write different types of news stories

Syllabus:

Module 1: Soft Skills (8hrs)

Communication skills- Interpersonal skills-Body language and gestures- Speaking skills

Module 2: Introduction to Journalism (8hrs)

History of Journalism- Principles of Journalism – News values- Elements of news story

Module 3: How to conduct Interview (8hrs)

Interviews- types of interviews – structure of interviews- Interview etiquette- script for a news report

Module 4: Words in Print (8hrs)

Basics of translation- Reporting-Types of Journalistic writing- Techniques of writing and editing- Proof reading

Assignment: Prepare a report of a visit to a vaccination camp.

Reference Text:-Carlson M & Lewis, S.C (2015) Boundaries of Journalism
Professionalism, Practices and Participation

Mehta D.S. (2006). Mass Communication and Journalism in India

Syllabus set by:

P.A John

Romy Thomas

Fathima Begum

AthiraSathish



Criterion 1

1.2.1 Curriculum of Certificate/Value added programs with assessment procedure

Assessment and evaluation:

Assignment (15%)

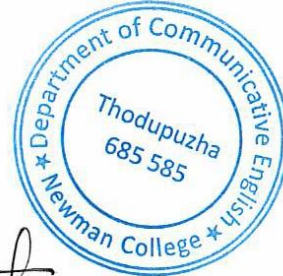
Attendance (5%)

Final Examination (80%)

Pass mark minimum - 40

Number of students passed: 67

Certificates: Attached



John
P. A. John

**6. Certificate Course: Introduction to Museums and Museology
Curriculum with assessment procedure**

NEWMAN COLLEGE, THODUPUZHA

CURRICULUM AND SYLLABUS FOR

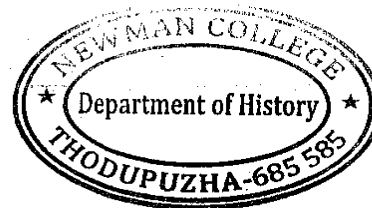
CERTIFICATE COURSE ON

AN INTRODUCTION TO MUSEUMS AND MUSEOLOGY

Course code: CCHYMM01

2020 Admissions

Co-ordinated by
DEPARTMENT OF HISTORY
NEWMAN COLLEGE, THODUPUZHA



Criterion 1

1.2.1 Curriculum of Certificate/Value added programs with assessment procedure

1. Programme description

Certificate course on **An Introduction to Museums and Museology** is a skill-oriented programme of 30 hours duration. Candidates who have passed (Eligible for Higher Studies) the HSE of the Kerala State Board Higher Secondary Examination or any other examination recognized as equivalent thereto with any of the social sciences as one of the subjects are eligible to apply for this course without any age restriction.

2. Programme objectives

This course is designed to give the students a basic understanding on the fundamental aspects of museology. It is also aimed to introduce the learners about origin, emergence and concepts of Museum and Museology in India and World. This course provides a broad introduction to the museum and introduces students to current theories, principles, and basic functions of museology. It will help learners to examine the aspects of national heritage.

3. Programme Outcomes

On completion of the course, the students are expected to have a clear understanding on the various aspects of museums and museology. The learner is expected to gain awareness about the history, context and concepts of Museum and Museology. The students will familiarize the basic concepts and terminologies of museology. The students are expected to understand different types of museums and their historical development in all over the world. Learners can also differentiate the functions and roles of museums in understanding the heritage of our nation.

4. Assessment of Students

Assessment of students for the course will be done by internal continuous assessment. Mark system is followed instead of direct grading for each question. Total marks for the course will be 100 marks.

5. SYLLABUS

Course Name: AN INTRODUCTION TO MUSEUMS AND MUSEOLOGY

Course code: CCHYMM01

Total 30 hrs (Theory)

Unit 1

What is a Museum – Definitions – Evolution of Museums – Museology – Nature and Scope – Key Concepts of Museology

Unit 2

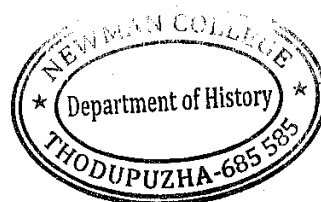
Different Types of Museums – Art Museum – Natural History and Anthropology Museum – Science and Technology Museums – The History Museum – Botanical Gardens and Zoos – Children's Museums

Unit 3

Functions of Museums – To Collect – To Conserve – To Exhibit – To Interpret – To Serve

Unit 4

Origin and Development of Museums in India



Criterion 1

1.2.1 Curriculum of Certificate/Value added programs with assessment procedure

References

Edward P. Alexander, Mary Alexander - Museums in Motion_ An Introduction to the History and Functions of Museums (2007, AltaMira Press)

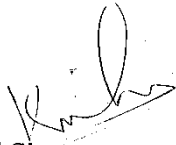
Charles Saumarez Smith, Ludmilla Jordanova, Colin Sorensen, Paul Greenhalgh, Stephen Bann, Philip Wright, Nick Merriman, Norman Palmer - New Museology (Reaktion Books - Critical Views)-Reaktion Books

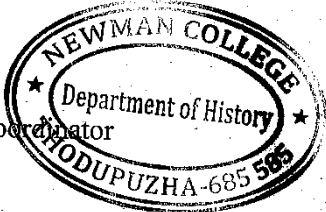
Directory of Museums in India


Key_Concepts_of_Museology

Peter Vergo - The New Museology-Reaktion Books (1990)

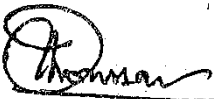
Timothy Ambrose, Crispin Paine - Museum Basics (Heritage_Care-Preservation-Management) (2006)


Name and Signature of Course Coordinator




Name and Signature of HoD

Dr. KRISHNAKUMAR M.V.
Head, Department of History
Newman College
Thodupuzha


Name and signature of Principal

Dr. KRISHNAKUMAR M.V.
Head, Department of History
Newman College
Thodupuzha

7. Certificate Course on Educational Psychology

Curriculum with assessment procedure

Course Rationale

This course is designed to give the student a thorough understanding of the theories and principles of psychology as applied to teaching and learning.

Learning Objectives

By the end of the course you will be able to:

1 Demonstrate your ability to be critical about teaching and learning as it applied to your field of study.

2 Demonstrate your ability to apply course concepts(theory,research,principles)to the teaching and learning

3 Demonstrate your ability to reflect upon you one development as a pre-profession in the field of education.

4 Demonstrate your ability to effectively communicate your ideas in both written and verbal form using the language developed from the course.

Mission of the Education Programme

Prepares the quality teachers suitable to the 21st century.

1 Professional preparation.

2 Continuous reflection.

3 Ongoing transformation.

The education programme promotes a multicultural community characterized by diversity ,integrity, compassion and commitment.

Vision of the Education Programme

Rooted in the Catholic tradition, this Education programme of Newman College, Thodupuzha

1Values the dignity and worthness of the each teacher candidate

2 shapes attitudes and values

3 Strives for social justice

4 Instill a sensitiveness for the poor and the powerless

5 and inculcates the professional competency and scholarship in every teacher candidate.

At Newman college, Thodupuzha we are committed to develop the particular abilities of our students, directing them into high qualities of professional scholarships.

Course objectives

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

1 Deliver effective teaching methods

2 experience scientific teaching methods

Criterion 1

1.2.1 Curriculum of Certificate/Value added programs with assessment procedure

Assesment

A cluster of five experiences will provide the basis for the learning experiences and assessment.

1 Presentations

2 Reflection papers

3 Blackboard Discussions

4 Field experience

5 Final synthesis/exam.

Twenty percentage weightage for each segment. Total grading will be out of 100 marks.

Grade	Point
A+	91-100
A	81-90
B+	71-80
B	61-70
C	51-60
D	41-50
F	Below 50

Class policy on attendance

Students are expected to be present and on time for all classes .Hands on experience and class instructions are invaluable and cannot be managed by individually. A student missing more than two classes will be in danger of fail .More than half an hour late will be counted as absent.If a student attending a whole session it will be assumed that he/she has grasped the content well .Blackboard participation is required and students are required to participate in it when called upon.

Course Topics/Syllabus

1 Principles of Development

Adolescence

Psychological needs.

Emotional Development

Social Development

Criterion 1

1.2.1 Curriculum of Certificate/Value added programs with assessment procedure

2 Teaching-Learning-An enduring process

Factors of Learning

Transfer of Learning

Learning skills, attitudes and values

Motivation

3 Theories of Learning

Pavlov Theory of classical conditioning

Skinner's Theory of Operant condition

Hull's Reinforcement Theory

Piaget's Theory of Cognitive Development

Reading List/referances

1 Gandhi, M.K (1937) Basic Education, Navjivan publishing House, Ahmedabad.

2 Chatterjee, S (2012) Principles and practices of Modern Education, Arunabha Sen Book, Kolkatta.

3 Rai, B.C (1997) Theory of Education, prakashan kendra, Lucknow.

4 Agarwal, J.C (1999) Theory and Practices of Education, Vikas Publishing House, New Delhi.

5 Mukherji, S.M (1966) History of Education in India, Acharya book Depot, Baroda.

6 Hurlock, B, Elizabeth (2003) Developmental psychology, Macgraw hill, New Delhi.

7 Dash, M and Dash N (2006) Fundamentals of Educational Psychology, Atlantic Publishers and Distributors, New Delhi.

Criterion 1

**1.2.1 Curriculum of Certificate/Value added programs
with assessment procedure**

8 Agarwal, J.C(1994)Essentials of Educational Psychology, Vikas publishing House, New Delhi.

9 Entwistle, N.J(1987)Understanding Classroom Learning, Hodder and Straughton, London.

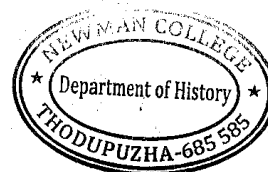
10 Hurlock, E B(1995)Developmental Psychology; A Life Span approach, Tata Macgraw Hill publishing Co, New Delhi.

11 Umadevi, M.R(2009)Educational Psychology. Theories and Strategies for Learning and instruction, Sathkruthy publications, Bangalore.

12 Craig J, Grace(1983)Human Development, Prentice Hall, INC Eagle Wood Cliffe, New Jersey.

13 Reilly, P.R and Levis E(1983)Educational Psychology, Macmillan Publishing Co. Ltd, New York.

Lawrence
Course Co-ordinator



8. Certificate Course on DTP in Malayalam and English
Curriculum with assessment procedure

Newman College Thodupuzha
Department Of Malayalam
Certificate Course (2020-21)
DTP – Malayalam & English
(For U G Malayalam Students)

Time Schedule: 30 hrs.

Objectives - To improve the computerised skills of DTP Malayalam & English of U G Malayalam students.

Module I

Basics in DTP- Key words- Main Keys- Software's –ISM, Unicode Microsoft word, Excel, Power point Publisher.

Module II

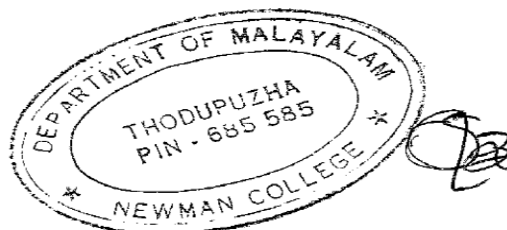
Typing in English, Malayalam, Keys of Malayalam Typing, Microsoft word, Page layout, size, orientation, Margining, Insert a Table, Pictures, Shapes, Smart Art, Chart, Header & Footer, Page Number, Word Art

Module III

PageMaker, Microsoft Excel & PowerPoint, Design, Animation, Sound & Video Insert in, Excel- Formula, Data, Excel- Spread sheet, PageMaker, Micro soft publisher, Brusher, Greeting cards.

References

1. DTP Training Guide- Prof. Satish Jain, BPB Publications
2. Comdex -9- in 1DTP course Kit- Viks Gupta, Dream tech Press
3. Rapidex DTP Course – Shirish Chavan, Cloudtail India
4. Dynamic Memory Computer Course – Davinder Singh Minhas, Diamond Books.



Criterion 1

1.2.1 Curriculum of Certificate/Value added programs with assessment procedure

Dr. Valsala Sajeev

Course outcome :

To improve the computerized skills of DTP Malayalam & English of U G Malayalam students

Assessment and evaluation:

Theory

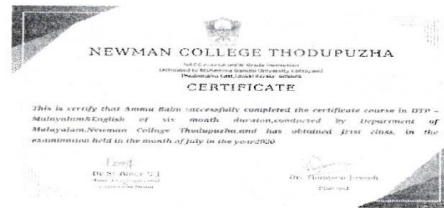
Mode of Assessment: Course end examination

Mark: 50

Minimum marks or pass: 20

Number of students passed: 49

Sample certificate:



Binoy C J

Dr. S. Binoy C J

Name and Signature of Course Coordinator

Thomas Joseph

Dr. Thomas Joseph

Name and signature of Principal



9. Certificate Course on Floriculture Management

Curriculum with assessment procedure

SYLLABUS

Course Name: FLORICULTURE MANAGEMENT Course code: CCBFM01

Theory: 24 hrs; Practicals;6 hrs (Total 30 hrs)

Module 1: Floriculture (8 hrs)

Introduction, commercial floriculture - jasmine, orchid, anthurium, rose, gladiolus; production of cut flowers, quality maintenance, packing, marketing. Flower arrangements - basic styles - upright and slanting - japanese Ikebana, dry flower arrangement.

Module 2: Gardening – additional features (10 hrs)

Garden friends - honey bees, ladybirds, frogs, spiders, earthworms, centipedes and millipedes. Garden foes - pests, pathogenic fungi, bacteria, virus. Control measures - pesticides and fungicides; neem tobacco decoction. Hazards of chemical pesticides; equipments used in controlling horticultural pests - sprayers, dusting equipments - sterilization, fumigation. Weeds - annual, perennial; weed control - prevention, eradication - hand weeding, tillage, burning, mowing, biological control, use of herbicides - selective and non selective - mechanisms involved in herbicidal actions.

Module 3 :Nursery management (6 hrs)

Nursery: definition, types; management strategies - planning, layout, budgeting - production unit, sales unit. Plant growing structures - green houses, fernery, orchidarium, arboretum.

PRACTICALS(6 hrs)

Practical skills will be assessed for these by continuous assessment.

- Arrangement of cut flowers and loose flowers-Bouquets
- Design a suitable landscape
- Working knowledge and identification of garden tools and implements.
- Growing of ornamental plants (for flowers and leaves)-Any two each
- Visit a well-established nursery and submit report.

References

1. George Acquciah, 2004. Horticulture: Principles and Practices (II Edn). Prentice Hall. India
2. Sharma R R, 2005. Propagation of Horticultural Crops. Kalyani Publishers.
3. Harlan J R, 1975. Crops and Man. Wisconsin: American Society of Agronomy.
4. Peter K.V. & Z. Abraham 2007. Biodiversity in Horticultural Crops Vol.1, Daya Publishing House. New Delhi
5. Chandha K L, 2003. Handbook of Horticulture. ICAR. New Delhi.
6. Randhawa G S, Mukhopadhyay A, 1986. Floriculture in India. Allied Publishers Pvt. Ltd. Ahamedabad.
7. Sadhu M K, 1996. Plant Propagation. New age International publishers, N. Delhi
8. Schilletter J C, Richey H W, 1999. Text Book of General Horticulture. Biotech Books, New Delhi
9. Mazundar B C, P M Mukhopadhyay, 2006. Principles & Practices of Herbal Garden. Daya Publishing House, Delhi.
10. Vishnu Swarup, 1997. Ornamental Horticulture. MacMillan India Ltd.
11. Linda William, 2005. Ornamental Science Demystified. Tata Mc Graw hill Co.
12. Percy Lancasher, 2004. Gardening in India. Oxford IBH Publishing Co. Pvt. Ltd.



Course outcome:

On completion of the course, the students are expected to be trained

- Professional Skills, Professional Knowledge, and Employability Skill related to the job role.
- Students are entrusted to undertake extracurricular activities to build up confidence.

Assessment and evaluation:

Theory

- Mode of assessment: Course-end examination
- Weightage: 50%
- Marks: 100
- Minimum marks or pass: 40


Practical

- Mode of assessment: Continuous internal assessment based on lab involvement
- Weightage: 50%
- Marks: 20
- Minimum marks or pass: 8


Name and Signature of Course Coordinator


Name and Signature of HoD




Name and signature of Principal
Dr. THOMSON JOSEPH
PRINCIPAL
NEWMAN COLLEGE
THODUPUZHA

Head, Department of Botany
Newman College, Thodupuzha
Kerala, India-685585

**10. UGC Sponsored career oriented Add on Course on Plant Tissue Culture
(Started in 2018-19)**

Curriculum with assessment procedure

PLANT TISSUE CULTURE

CERTIFICATE COURSE

Paper I. Fundamentals of Plant Tissue Culture: 3 credits

Paper II. Applications of Plant Tissue Culture: 3 credits

Paper III – Practical: 6 credits

Paper IV - Field Work, Project, Training: 8 credits

Paper I – Fundamentals of plant tissue culture 3 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. Equipment - 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 - 3 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 - 6 credits

1. Preparation of Standard tissue culture media -MS and White's. Preparation of Stock solution, Preparation of hormones, cotton plugs.
2. Method of preparation of Media, Sterilization of media.
3. Collection of explants Sterilization, inoculation of explants-leaf; root, shoot, anther, ovary and embryo.

Criterion 1

1.2.1 Curriculum of Certificate/Value added programs with assessment procedure

4. Preparation of synthetic seeds
5. Maintenance of cultures, Sub culturing at periodical intervals.
6. Hardening of rooted plantlets.

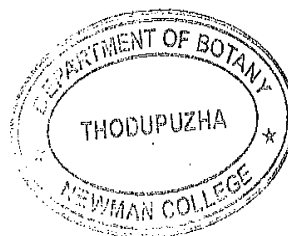
Paper IV field work, project, and training - 8 credits

Collection of plant Material with medicinal and economic importance. Establishment in field,

Selection of explants, contamination free cultures.

Reference

1. Kalyan Kumar De., (1992) An introduction to plant tissue culture. New Central Agency Calcutta.
 2. Razdan M K 1993 an Introduction to plant Tissue culture. Oxford IBH Publi. Co. Ltd.
- ReinertJand Baja YPS. 1989 applied and fundamental aspects of Plant cell tissue and organ culture NarosePubli. House, New Delhi.



Criterion 1

1.2.1 Curriculum of Certificate/Value added programs with assessment procedure

Course outcome:

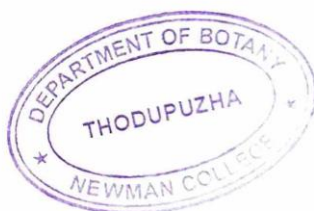
On completion of the course, the students will be able

- Identify the basics and application of Plant Tissue culture
- Isolate explants and inoculate it aseptically
- Perform Plant Tissue culture

Assessment and evaluation:

Theory and Practical (Paper I, II, III)

- Mode of assessment:
Continual assessment: Test papers (I and II); Seminar/ viva; Assignments;
Attendance
Written assessment: Written examination at the end of course
- Weightage:
 - ✓ Continual assessment – 50%
 - Test paper I – 10 marks
 - Test paper II – 10 marks
 - Seminar/ viva – 10 marks
 - Assignments- 10 marks



11. Certificate Course on Analytical Techniques (Applied) in Chemistry

Curriculum with assessment procedure

1. INTRODUCTION

Chemistry, being a border science to biology, physics and engineering, has a key role to play in learning these disciplines. An effective science education can be imparted at the undergraduate level only by revamping the present curriculum. To achieve this goal, the curriculum should emphasis on various aspects such as the creativity of students, knowledge of current developments in the discipline, awareness of Softwares due to the development of science and technology, and the skills essential for handling equipment and instruments in laboratories and industries.

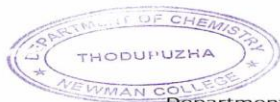
The Department has taken the initiative to reformulate the undergraduate syllabi by introducing certificate courses. This curriculum is prepared to give sound knowledge and understanding of chemistry to undergraduate students. The goal of the syllabus is to make the study of chemistry stimulating, relevant and interesting. The syllabus is prepared with a view to equip the students with the potential to contribute to academic, research and industrial environments. This curriculum will expose students to various technological aspects in chemistry and develop interest in related disciplines. Care has been given to ensure that the syllabus is not very heavy while remaining compatible to the syllabi of undergraduate level. Chemistry being an experimental science, sufficient emphasis is given in the syllabus for training in practical applications. The syllabus has been prepared in a participatory manner, after discussions with a number of faculty members in the subject and also after evaluating the existing syllabi of other Universities. A list of reference books is provided at the end of each course.

2. AIMS AND OBJECTIVES

The aim of this certificate course is to provide students an in-depth understanding of the applications of analytical techniques in quality control. The objective of this course is to bridge the gap between pure and conventional academics with industrial demands. A series of conventional and modern analytical techniques in quality control along with their principle, instrumentation and potential applications are included in the course.

3. COURSE STRUCTURE

- **Course Duration** – 30 Hours
- **Eligibility** - B.Sc. & M.Sc. students
- **Number of seats** - 60
- **Attendance** - Minimum 75% attendance mandatory to appear for the final examinations
- **Evaluation Process** - Assessment of candidates will be done after completion of each module through assignments, projects & practical examinations. All successful candidates will be awarded with certificates.



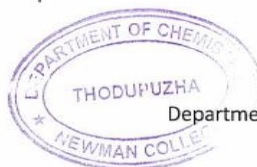
Department of Chemistry, Newman College Thodupuzha

4. SALIENT FEATURES OF THE CERTIFICATE COURSE:

- Impart hands-on-training on the applications of basic analytical techniques in quality control
- Connects conventional academics with industrial demands

5. COURSE OUTCOME

- **Learning outcomes:** - After successful completion of this course, candidate will be able to understand how to apply the analytical techniques in separation and purification of compounds and to check the purity of samples by various chromatographic techniques



Department of Chemistry, Newman College Thodupuzha

6. COURSE CONTENT & SYLLABUS

CCCH02- Certificate Course on Analytical Techniques (Applied) in Chemistry (30 hours)

Unit 1: Introduction to Quality Control

(6 hours)

Concept, evolution and scopes of quality control and quality assurance. Analysis of raw materials, finished products- Quality control in chemistry- Brief outline of chemical industry- types-nature (in context of Large/Medium/ Small Enterprises)- Regulatory Authorities and Government Policies, Rules and Regulations and their impact on manufacturing in chemical Industry- BIS (introductory notes) and Indian Standards Bill. Role of a Quality Control Chemist, required skills and knowledge and its Career Path

Unit 2: Modern Analytical Techniques for Separation/purification

(12 hours)

Chromatography as a method for the separation and purifications of organic compounds- conceptual learning- principle, chromatographic parameters, factors affecting- mobile and stationary phases- the concept of adsorption and partition in the separation of compounds- elution and Rf value- classification- gas solid chromatography, gas liquid chromatography. Paper Chromatography (3 different types)- Thin Layer Chromatography, Column Chromatography and Ion exchange chromatography- with applications. Distillation as a method for the separation and purifications of organic compounds- types of distillation- purification of common volatile organic compounds (theory and applications)

Unit 3: Practicals

(12 hours)

Purification and separation techniques:

1. Purification of aniline by distillation method
2. Crystallization of various compounds and their TLC study
3. Column, paper and thin layer chromatographic methods for separation of compounds

References and further readings

- 1) P. Konieczka, J. Namiesnik, Quality Assurance and Quality Control in the Analytical Chemical Laboratory: A Practical Approach, First Edition (Analytical Chemistry), CRC Press, 2009.
- 2) G.D. Chritiain, Analytical Chemistry: Solutions manual to accompany Analytical chemistry, Wiley, 1980.
- 3) H. H. Willard, I. L. Merritt, J. A. Dean, Instrumental methods of analysis, Third Edition, Princeton, 1958
- 4) G. D. Christian, P. K. Dasgupta, K. A. Schug, Analytical Chemistry, Wiley, 2013
- 5) A. I. Vogel, A text book of quantitative Inorganic analysis, Longmans, Green & co., Ltd., 1966.
- 6) D. A. Skoog, J. F. Holler, T. A. Niemay, Principles of Instrumental Analysis, Fifth edition, Saunders College Pub., 1998



Jose John
Course Coordinator



Department of Chemistry, Newman College Thodupuzha

St. Biju Peter
HOD Chemistry

Assessment and evaluation:

Theory

Marks of external examination : 40

Marks of internal examination : 10

Practical

Marks of external examination : 40

Marks of internal examination : 10



12. Certificate Course on Programming in Python

Curriculum with assessment procedure

Outcome of the course:

Be able to solve Mathematical problems using Python programs

Syllabus

Module I (10 hours)

Calculations and variables, creating strings, lists are more powerful than strings, tuples if statements, if-then-else statements, if and elif statement, combining conditions the difference between strings and numbers using for loops, while we are talking about looping
(text 2 – chapter 2,3,5,6)

Module II (10 hours)

Using functions, parts of a functions, using modules, The functions abs, float, int, len, max ,min, range, sum
(Text 2- chapter 7,9 , text 3- chapter 1)

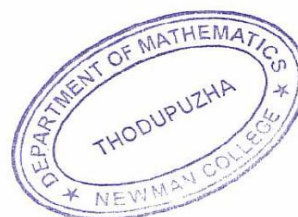
Module III (10 hours)

Defining symbols and symbolic operations, working with expressions, solving equations and plotting using SymPy, problems on factor finder, summing a series and solving single variable inequalities.
(Text 3- chapter 4)

References:

- 1) The online Wiki book “Non-Programmer's Tutorial for Python 3” (A free PDF Book from the URL https://en.wikibooks.org/wiki/Non-Programmer's_Tutorial_for_Python_3)
- 2) Jason R Brigs , Python for kids – a playful introduction to programming, No Starch Press
- 3) AmitSaha, Doing Math with Python, No Starch Press, 2015.
- 4) JaanKiusalaas, Numerical Methods in Engineering with Python3, Cambridge University Press.
- 5) Dive Into Python by Mark Pilgrim, Free to download from the URL <Http://www.diveintopython.net/>

Nancy Jacob



Assessment and evaluation:

Mode of assessment: End examination (Online)

Weightage: 50%

Marks: 50

Minimum marks or pass: 20


Name and Signature of Course Coordinator

Mrs. Nancy Jacob


Name and Signature of HoD

Mrs. Nancy Jacob

13. Certificate Course on Python for Scientific Computing

Curriculum with assessment procedure

Course Outcome:

After completing the course student will

- Learn to describe the core syntax and semantics of Python programming language.
- Acquire basic knowledge of unix/linux and can explain the basics of python
- Get an idea of libraries, interactive environments etc of python and their installation.
- Be able to use python libraries to create, manipulate, and visualize numerical data
- Be capable to perform numerical data analysis and interpretation using python programs.

Certificate course on Python for Scientific Computing (30hrs)

Introduction to Unix/Linux Shell and Python scientific computing ecosystem (3 hours)

Introducing the Shell: Bash; Navigating Files and Directories: Bash commands, Absolute vs Relative Paths; Shell Scripts: Finding Things: grep,find

Why Python? The Scientific Python ecosystem — Core numeric libraries, Advanced interactive environments (IPython, Jupyter notebooks), Domain-specific packages; Installing a working environment: Anaconda; The workflow: interactive environments and text editors; IPython and Jupyter Tips and Tricks.

Python Programming Essentials (10 hours)

Python as a Calculator; Basic types: Numerical types, Containers (Lists, Strings, Dictionaries, Tuples), Methods on Containers (eg. Indexing, Slicing, etc.), Assignment operator; Control Flow: if/elif/else, for/range, while/break/continue, Conditional Expressions, Advanced iteration (Iterate over any sequence, Keeping track of enumeration number, Looping over a dictionary), List Comprehensions; Defining functions: Function definition, Return statement, Parameters, Passing by value, Global variables, Variable number of parameters, Docstrings; Input and Output: write or read strings to/from files; Standard Library: os module: operating system functionality, sys module: system-specific information.

NumPy: creating and manipulating numerical data (8 hours)

The NumPy array object: Creating arrays - Manual construction of arrays, Functions for creating arrays, Indexing and slicing, Copies and views, Fancy indexing (boolean masks, Indexing with an array of integers); Numerical operations on arrays: Elementwise operations, Basic reductions, Broadcasting, Array shape manipulation (Flattening, Reshaping, Adding a dimension, Dimension shuffling, Resizing). Sorting data; Loading data files (loadtxt, savetxt, imread).

Python Data Visualization (2 hours)

Matplotlib: pyplot, Changing colors and line widths, Setting limits, Setting ticks, Setting tick labels, Moving spines, Adding a legend, Annotate some points; Figures, Subplots, Axes and Ticks; Other Types of Plots: Scatter Plots, Bar Plots, Contour Plots, Inshow, Pie Charts.

Scipy and High Level Scientific Computing (7 hours)

Linear algebra operations; Interpolation; Optimization and fit: Curve fitting, general linear least squares, Finding the minimum of a scalar function, Finding the roots of a scalar function; Statistics and random numbers: histogram and probability density function, Mean, median and percentiles, Statistical tests.

Criterion 1

1.2.1 Curriculum of Certificate/Value added programs with assessment procedure

Reference:

1. Python 3 for absolute beginners, Tim Hall and J P Stacey, Apress-2009
2. Python programming for beginners, Adam Stewart-2016
3. Introduction to Programming in Python, Durham university -2009
4. Learning scientific programming with python, Christian Hill, Cambridge University Press, 2015
5. Python for scientists, John M Stewart, Cambridge University Press, 2017

Assessment & Evaluation:

Attendance :

Maximum Marks: 5 Marks

Weightage: 8.33 %

Assignment:

Maximum Marks: 15 Marks

Weightage: 25 %

Written Exam

Mode of Assessment: Course end Examination

Weightage: : 66.67 %

Max. Marks: 40

Total Mark: 60

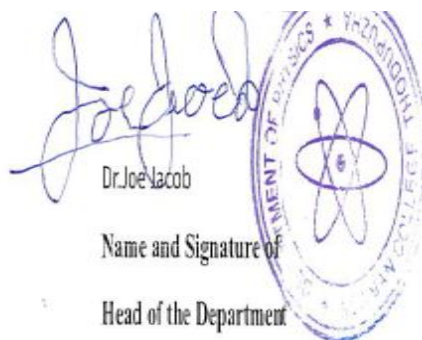
Minimum pass mark: 40% (24 marks)



Noble C. Kurian

Name and Signature of

Course Coordinator



Dr. Joe Jacob

Name and Signature of

Head of the Department



Dr. Thomson Joseph

Name and Signature of Principal

14. Certificate Course on Aquarium Management (online)**Curriculum with assessment procedure****Course outcome**

Course outcomes are broad, overarching statements that describe what students are expected to achieve or demonstrate by the end of the course. They focus on the overall knowledge, skills and competencies that students should have acquired during their studies. Course outcomes are usually measurable and observable.

Upon completion of the course, students will be able to demonstrate a comprehensive understanding of aquarium ecosystems, effectively manage aquariums, and promote the well-being of fish and invertebrates through proper care and maintenance.

Assessment and Evaluation:**Theory**

Mode of assessment: Course End examination

Weightage: 80%

Marks: 80

Minimum marks or pass: 40

Practical

Mode of assessment: Continuous internal assessment based on lab/Field involvement

Weightage: 20%

Marks: 20

Minimum marks or pass: 10



Criterion 1

1.2.1 Curriculum of Certificate/Value added programs with assessment procedure

5. SYLLABUS

Course Name: AQUARIUM MANAGEMENT

Course code: CCZYT04

(Theory: 20 hrs; Practical: 10 hrs; Total 30 hrs)

THEORY (20 hrs)

Module 1. Introduction to Aquariums (3 Hours)

- Types of aquariums (freshwater, saltwater, brackish)
- Basic components of an aquarium (tank, filtration, lighting, substrate, etc.)
- Understanding the nitrogen cycle

Module 2. Water Quality and Chemistry (3 Hours)

- Importance of water quality in maintaining a healthy aquarium
- Parameters like pH, temperature, ammonia, nitrite, nitrate, etc.
- Water testing and interpretation of test results
- Water change and maintenance procedures

Module 3. Fish and Invertebrate Selection (3 Hours)

- Choosing appropriate fish and invertebrates for different types of aquariums
- Compatibility and behavior considerations
- Quarantine procedures to prevent disease introduction

Module 4. Aquarium Filtration Systems (2 Hours)

- Types of filtration (mechanical, biological, chemical)
- Understanding the filtration cycle and beneficial bacteria
- Filter maintenance and troubleshooting

Module 5. Feeding and Nutrition (3 Hours)

- Understanding the dietary needs of various fish species
- Types of fish food and their benefits
- Feeding strategies and frequency



Criterion 1

1.2.1 Curriculum of Certificate/Value added programs with assessment procedure

Module 6. Aquarium Maintenance (3 Hours)

- Cleaning techniques for tanks and equipment
- Algae control and prevention
- Regular maintenance schedule

Module 7. Fish Health and Disease Management (3 Hours)

- Identifying signs of disease and stress in fish
- Common aquarium diseases and treatments
- Quarantine and medication protocols

Module 8. Practical Experience (10 Hours)

- Practical application of knowledge gained throughout the course
- Hands-on experience in managing an aquarium or solving real-world challenges

References

1. Fenner, R. M. (2010). The Conscientious Marine Aquarist: A Commonsense Handbook for Successful Saltwater Hobbyists. TFH Publications.
2. Walstad, D. (2013). Ecology of the Planted Aquarium: A Practical Manual and Scientific Treatise. Echinodorus Publishing.
3. Skomal, G. (2018). Saltwater Aquariums for Dummies. For Dummies.
4. Hargrove, M., & Hargrove, M. (2006). Freshwater Aquariums for Dummies. For Dummies.
5. Hiscock, P. (2003). Aquarium Plants (Mini Encyclopedia Series for Aquarium Hobbyists). Barron's Educational Series.
6. Borneman, E. H. (2001). Aquarium Corals: Selection, Husbandry, and Natural History. TFH Publications.
7. Boruchowitz, D. E. (2017). The Simple Guide to Freshwater Aquariums (Second Edition). T.F.H. Publications.
8. Moe Jr., M. A. (2003). Marine Aquarium Handbook: Beginner to Breeder. Green Turtle Publications.
9. Sweeney, M. E. (2011). The 101 Best Aquarium Plants: How to Choose Hardy, Vibrant, Eye-Catching Species That Will Thrive in Your Home Aquarium. TFH Publications.

Jisha Jacob 

Head of the department
Department of Zoology
Newman College
Thodupuzha



**15. Certificate Course on Field Entomology(online)
Curriculum with assessment procedure**

5. SYLLABUS

Course Name: FIELD ENTOMOLOGY

Course code: CCZYT03

(Theory: 20 hrs; Practical: 10 hrs; Total 30 hrs)

THEORY (20 hrs)

Module 1: (4 hrs)

The Insects: Brief Introduction: Insect Biodiversity, Evolution of Insects, Insect Morphology, Development, Life history.

Module 2: (2 hrs)

Classification of Insects: Introduction to major Insect Orders.

Module 3: (10 hrs)

Basic tools and general techniques for Insect Collection: Basic equipments, Methods of Insect collection – Collection of flying insects – collecting nets, aspirators and suction devices, traps, Baits, lures, and other attractants, Collection of aquatic insects, Collection of soil insects.

Module 4: (4 hrs)

Killing and Preservation of Insects: Killing containers and agents, Storage of specimens – Temporary storage, Mounting, Labeling, Care of the collection, Packaging and shipping specimens.

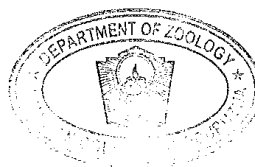
PRACTICAL (10 hrs)

1. To study variations and different modifications of external morphology of insect
2. To study different developmental stages of life cycle of Butterfly
3. To study different types of insects traps.
4. General classification of Insects up to families (At least 2 examples of each orders- Odonata, Orthoptera, Hemiptera, Coleoptera)
5. Insect's collection & preservation (5 insects each) of the orders Hemiptera, Lepidoptera, Coleoptera.



References

1. Bland, R. and H. E. Jaques. (1978). How to Know The Insects. 3rd edition. Waveland Press, Inc.
2. Borror, D., C. Triplehorn and N. Johnson. (1989). An introduction to the study of insects. 6th Ed. Saunders College Publishing, Philadelphia. 875 pp.
3. Gibb T. J. and C. Oseto (2006) Insect collection and identification: techniques for the field and laboratory. Academic Press, London
4. Lutz, F. E., (2012). How to Collect and Preserve Insects: Guide Leaflet Series, No. 39. Literary Licensing, LLC.
5. Schauff, M. E. (1986). Collecting and preserving insects and mites: Techniques and tools. USDA Miscellaneous Publication 1443: 1-68.



Course Outcome

By successfully completing the course students will be able to

- Describe the evolution and diversity of insects and basics of insect biology
- Identify the major insects orders
- Have a thorough understanding of the insect collection and preservation methods

Assessment and Evaluation:

Theory

Mode of assessment: Course End examination

Weightage: 80%

Marks: 80

Minimum marks or pass: 40

Practical

Mode of assessment: Continuous internal assessment based on lab/Field involvement

Weightage: 20%


Marks: 20

Minimum marks or pass: 10


Jisha Jacob Chokk

Head of the department
Department of Zoology
Newman College
Thodupuzha

**16. Certificate Course on Computerized Accounting and Taxation
Curriculum with assessment procedure**



POSTGRADUATE
DEPARTMENT OF COMMERCE
NEWMAN COLLEGE THODUPUZHA
(REACCREDITED BY NAAC WITH 'A GRADE')



2020 - 21
30 HOURS ONLINE AND CLASSROOM

**CERTIFICATE COURSE IN
COMPUTERIZED ACCOUNTING AND TAXATION**

Course Co-ordinator: saarika.pushpan@newmancollege.ac.in
For further details visit: commerce@newmancollege.ac.in

Features of the course:

- Course shall impart learning exercise on different software applications of accounting and taxation, different aspects of managing accounts, payroll, tracking incomes, analyzing forecasts and budgets digitally.
- Course duration : 30 hours
- Eligibility : Final year B.com students
- Number of Seats : 28
- Attendance : Minimum 75% attendance to appear for final exam

Course outcome:

Students who successfully complete this course will be able to:

- Understand the practical aspects of managing accounts, payroll, tracking incomes and expenditure, analyzing forecasts and budgets by instilling in students the required office skills
- Throughout the course, students become well versed in the field of accounting through the digital medium
- Students will gain both academic and practical knowledge on computerized accounting and taxation

Assessment Procedure:

Assessment will be done after completion of each module through assignments and projects.

- Final exam will conducted at the end of the program
- Exam shall contain objective and descriptive questions
- Maximum marks for the final exam shall be 100
- Grade shall be allotted based on the following scale
 - ✓ 85% and above : A+
 - ✓ 80% – 84% : A
 - ✓ 75% – 79% : B+
 - ✓ 70% – 74% : B
 - ✓ 65% – 69% : C+
 - ✓ 60% – 64% : C
 - ✓ Less than 60% : D

Certificate Course In Computerised Accounting And Taxation

COMMERCE DEPARTMENT

NEWMAN COLLEGE, THODUPUZHA

Income Tax Syllabus

Introduction to Income Tax – Income Exempt From tax- Income from Salary-
Income from House Property – Profits and gains from Business or Profession –
Capital Gains – Income from other sources – Clubbing of Income – Set off and
Carry Forward – Deduction from GTI – Assessment of Individuals –
Computation of Tax (8 Hours)

Tally Syllabus

Basics of Accounting, and Accounting Cycle - Introduction to Tally, and
Company Information- Creating Groups, and Ledger Accounts -Voucher Types,
and Voucher Entry – Part I - Voucher Entry –Closing Entries, and Adjustments
- Debit Note, Credit Note, and Bank Reconciliation Statement -Memorandum,
Optional, Post - dated, and Reversing Vouchers - Display, and Print Books /
Reports.

Practical Hours. (14)

GST Syllabus

Introduction to GST – Methodology – Benefits – Important Definitions – Rates
of GST – Reverse Charge Mechanism – Computation Of GST – Input
TaxCredit – Computation – Reversal of Credit - Utilization of Input Tax Credit
– GST Returns – E way Bill. (8 Hours)



HEAD,
P.G. Department of Commerce
Newman College
Thodupuzha - 685 585

17. Certificate Course on Health Care Management
Curriculum with assessment procedure

DEPARTMENT OF COMMERCE FINANCE AND TAXATION SF
NEWMAN COLLEGE THODUPUZHA
CERTIFICATE COURSE
HEALTH CARE MANAGEMENT

Course Title: Health Care Management

Course Code: CCIHCM05

Instructional Hours: 35 hours

Course Description:

Health care management provides a framework for addressing management problems in health care organizations. This course is intended to create awareness among the students and equip them with the necessary skills for managing the health care institutes.

Course Objective:

To create awareness among the students and equip them with the necessary skills for managing the health care institutes.

Course Outcomes:

- To orient students in health care
- To enhance knowledge in the health care industry
- To familiarize the students about the various health services
- To familiarize the students with office management

SYLLABUS

Module I

Role of hospitals in health care –Role of hospitals in development of society –Types of Hospital Ownership (Private, Government), Specialization (Nursing Homes, Diabetic clinic, General Hospital) and Service (Homeopathy, Ayurveda)

(10 hours)

Module II

Management of hospitals – Importance of HRM and staffing – Financial management – Budget allocation - A study on Private and Government health care units – Role of Government in health care sectors

(15 hours)

Module III

In patient and Out patient – Hospital services –Clinical services – X-ray department –Lab services – Department in hospitals: Paediatric, Orthopaedic, Pathology etc.

(10 hours)



Criterion 1

1.2.1 Curriculum of Certificate/Value added programs with assessment procedure

Assessment and Evaluation:

Final exam was conducted at the end of the program

Exam contained objective and descriptive questions

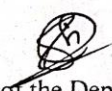
Maximum marks for the final exam - 100.

Grads were allotted based on the following scale

- 85% and above : A+
- 80% – 84% : A
- 75% -- 79% : B+
- 70% -- 74% : B
- 65% --69% : C+
- 60% --64% : C
- Less than 60% : D

Reference:

1. Buchbinder, S. B., & Shanks, N. H. (2012). Introduction to Health Care Management. Jones & Bartlett Publishers, 2nd Edition
2. Peter C Olden. (2015). Management of Health Care Organizations: An Introduction. Health Administration Press, USA, 2nd Edition


Head of the Department




Course Coordinator

18. Certificate Course on E – Commerce Curriculum with assessment procedure

**NEWMAN COLLEGE THODUPUZHA
DEPARTMENT OF COMMERCE COMPUTER APPLICATION (SF)
Certificate Course during 2020-21**

Name of the course: E-Commerce

Course Code: EC52021

Number of instructional hours: 40 hrs

Course objectives:

1. To understand the basic and emerging topics in E-commerce
2. To discuss E-Commerce from an enterprise point of view and think strategically,
3. To understand the role of IT for an organizations competitive position.

Description

The objective of this course is to make the students familiar with the mechanism of conducting business transactions through electronic media. This course focuses on principles of e-commerce from a business perspective, providing an overview of business and technology topics, business models, virtual value chains and social interaction and marketing strategies.

Subjects

Module 1 Overview of Electronic Commerce: Introduction to E-Commerce-Definition
History -Advantages - Disadvantages and Challenges - Functions of E-Commerce – E-commerce transaction cycle – E-commerce opportunities - Types of E-Commerce- B2C-B2B- C2C - B3- B2E- B2G- P2P - Models of E-Commerce - E-Commerce and E-Business – Transition to e-commerce in India

Module II Application of E-Commerce: E-Banking - Online Share Trading - M-Commerce - E-Learning - EPublishing - E-marketing – E-advertising – E-branding - Online Entertainment - Online Career Services - Electronic Data Interchange (EDI) - Enterprise Resource Planning (ERP) - Big Data Analysis - Cloud Computing - Google Analytics - Digital India Initiatives – E-Governance - E-Aadhar - Digital Locker - E-Sign – PayGov - Mobile seva – eTaal

Module III E-payment Systems: E-payment requirements - Debit/Credit card payment - Net Banking - Smartcard based payment – Digital token based payment - Digital wallet - e-checking – e-cash – Cash on Delivery - Payment gateway - Risk in e-payment - Security Standards for Electronic Payment System

Module IV E-Commerce Security: Need for Security of E-Merchant/Service Provider, Security of Clients, Basic Security Issues in E-Commerce- security threats – security measures - Digital Signature - Digital Certificate - Cyber Law – Provisions of Information Act 2000 - Penalties and Adjudication – Cyber related provisions under IPC - E-Commerce and Consumer Protection in India.

Module V Setting up of E-Commerce Business: Website development - Open Source E-Commerce Platforms – Components of website - Promotion of Websites and Apps - Search Engine Optimisation - Search Engine Marketing - Social Media Optimisation - Viral Marketing - Electronic Customer Relationship Management (ECRM) - Electronic Supply Chain Management

Learning Outcomes:

1. Describe the major types of E-commerce.
2. Identify the Key security threats in the E-commerce environment.
3. Analyse the impact of E-commerce on business models and strategy.

Assessment:

The number of instructional hours assigned for this particular course is 40. After each module an online test will be conducted. Students will be given assignments and the grade for each assignment is accumulated to calculate the participant overall score. The total marks will be calculated on the basis of assignment score of the students plus the online test score.

Criterion 1

1.2.1 Curriculum of Certificate/Value added programs with assessment procedure

Module wise credit distribution:

Module Name	Credit Hours	Credit Points
Module I	6	2
Module II	10	2
Module III	9	3
Module IV	10	3
Module V	5	2
Total Credits	40	12

References:

Minoli, E. M. (2014). *Web Commerce Technology Handbook*.

New Delhi: Tata McGraw

Chandrasekhar, C. (2014). *E- Business and E Commerce Management*. New


Delhi: Prentice Hall.

Prasad, H. M. (2013). *e-Business and e-Commerce for Managers*. New

Delhi: Prentice Hall.


Course Co-ordinator




Head of the Department

Criterion 1

1.2.1 Curriculum of Certificate/Value added programs with assessment procedure

Assessment and evaluation:

Theory

- Mode of assessment: Course end examination
- Weightage: 50%
- Marks: 50
- Minimum marks or pass: 20

Practical

- Mode of assessment: Continuous internal assessment based on lab involvement
- Weightage: 50%
- Marks: 50
- Minimum marks or pass: 20

JISNA JOSEPH

Name and Signature of Course Coordinator

Name and Signature of HoD
Sachin Jacob

Name and signature of Principal



19. Certificate Course on Human Resource Management
Curriculum with assessment procedure

DEPARTMENT OF COMMERCE CO-OPERATION (SF)

CERTIFICATE COURSE 2020 – 2021

HUMAN RESOURCE MANAGEMENT

Course Code: HRMO511

Instructional Hours: 40 Hour

Course Objectives:

- To develop conceptual knowledge in management subjects
- To impart decision making skills at an early stage of life
- To enhance management and entrepreneurial skills

Course Outcomes

- Evaluate and apply the fundamental principles of business management
- Utilize knowledge and skills for decision-making and management purposes.
- Analyse and appraise contemporary issues employing relevant economic constructs.

Syllabus

Unit I

Definition, Nature, Scope, role, objectives of Personnel Management, Level of management, Organisation of Personnel Dept, its Functions, Ergonomics, Challenger and relevance of HRM, Manpower planning

Unit II

Recruitment – Sources of Recruitment, Selection – Selection Process, Training – Definition. Types of training Executive Development

Unit III

Performance Appraisal, Techniques Promotion, career Planning

Criterion 1

1.2.1 Curriculum of Certificate/Value added programs with assessment procedure

Unit IV

Job analysis, Job Design, Job Evaluation Wage. Definition, Factors affecting wage policy, Wage Boards Fringe Benefits, Pre requisites, Incentives, Bonus, Profit sharing, VRS, Maintenance of services files pension

Assessment

Total number of instructional hours assigned for this particular course is 40. After each module, online test will be conducted. Students will be given assignments and the grade of each assignment is accumulated to calculate the participant overall score. The total credit points will be calculated on the basis of assignment score of the students plus the online test score.

Module wise credit distribution:

Module Name	Credit Hours	Credit Points
Unit I	10	3
Unit II	10	2
Unit III	10	2
Unit IV	10	3
Total Credits	40	10

References.

1. Pravin Durai, *Human Resource Management*, Pearson
2. Subba Rao, *Personnel HRM*, Himalaya Publishing House, Mumbai


Head of the department




Course Co-ordinator