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KARPAGAM
ACADEMY OF HIGHER EDUCATION
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KARPAGAM ACADEMY OF HIGHER EDUCATION

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(Established Under Section 3 of UGC Act, 1956)
Pollachi Main Road, Eachanari Post, Coimbatore - 641 021, Tamil Nadu, India.
Phone : 0422 - 2980011 - 14 | Fax : 0422 - 2980022 | Email : info@kahedu.edu.in

Prof.Dr.M. Palaniswamy, M.Sc., M.Phil., PhD.
Registrar

Ref.KAHE/R/NAAC/DVV/2021/ **05.05.2021**

Certificate of Authentication

This is to certify that the following documents related to the **Metric ID: 1.3.2 (111 pages)** are duly verified and authenticated by the Registrar, Karpagam Academy of Higher Education for DVV purpose.

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Brochure and course content of the Value Added Programmes.

S.No.	Year	VAC Name	Page no.
1.	2019-2020	1. Analysis of bio Signal processing using machine learning algorithm 2. Food Product Development 3. Water technology and waste water treatment 4. Vasthu Sashtra - Principles and Applications 5. Self-Grooming and Communication for Professionals 6. Client Management 7. Functional Foods: Principles And Technology 8. Diet Management In Health And Disease	4-33
2.	2018-2019	1. Advanced Database Concepts 2. Under Ground Telephone Cables in Railways 3. CDAC (Photoshop) 4. Sales force Business Learnathon Programme 5. Aptitude Ability 6. Drug design and Development 7. Cyanobacteriology 8. Scientific Writing	34-54
3.	2017-2018	1. English for Professionals 2. Capital Market Training Programme 3. Basic Bioinformatics tools	55-66

		and techniques 4. Bio analytical Instrumentation	
4.	2016-2017	1. Business Process Services in Insurance 2. Algal Technology 3. CDAC (Photoshop) 4. Capital Market Training Program	67-81
5.	2015-2016	1. Pumps and Motors 2. 2D Drafting 3. 3D Modelling with GD&T 4. Robotics & Automation 5. Technical Presentation & Seminar 6. Communication Skills Development 7. Geometrical Dimensioning & Tolerancing 8. Soft Skills Development 9. Application of Renewable energy 10. Herbal Cosmetic technology	82-111

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COURSE CONTENTS:

Bio-Signal Processing

- Introduction
  1. Signal Processing toolbox
  2. Design of Digital Filter
- Feature Extraction
  1. Statistical Features
- Classification
  1. Support Vector Machine
- Applications
  1. Analysis of Parkinson's disease using EEG
  2. Preterm infant using EHM
  3. Analysis of Muscular Dystrophy using EMG

RESOURCE PERSON

Dr.S.Kamalraj
Biomedical Engineering
Faculty of Engineering
Karpagam Academy of Higher Education

Ms.S.SreeSanjanaaBose
Biomedical Engineering
Karpagam Academy of Higher Education

Ms. Sangeetha
Biomedical Engineering
Karpagam Academy of Higher Education

REGISTRATION

Student(BME)
Last date for registration: 01.02.2020
Spot Registration : 05.02.2020

ORGANIZING COMMITTEE

President

Dr.R.VasanthaKumar
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Karpagam Academy of Higher Education

Dr.S.Kamalraj
HOD, Biomedical Engineering
Faculty of Engineering
Karpagam Academy of Higher Education

Organizing Secretary

1. Ms.SreeSanjanaa Bose. S

Contact

Phone:
e-mail:sanjanaa1109@gmail.com

VALUE ADDED COURSE

ON

Analysis of Bio-Signal processing using Machine Learning Algorithms

5-8th February 2020

Duration 30 Hrs

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ACADEMY OF HIGHER EDUCATION
(Deemed to be University)
(Established Under Section 3 of UGC Act, 1956)

Organized by

Department of Biomedical Engineering

Faculty of Engineering

ABOUT THE INSTITUTION

Karpagam Academy of Higher Education (KAHE) established under Section 3 of UGC Act 1956 is approved by Ministry of Human Resource and Development, Government of India. Dr. R. Vasanthakumar, the president of the trust a philanthropist, industrialist, entrepreneur and culture promoter.

Contemporary infrastructure, modern teaching methodologies, career oriented training, excellent placements and the finest faculty have always been Karpagam'shallmark. Besides technical expertise, the Karpagam Academy of Higher Education (KAHE) has made a mark for itself since its inception by developing communication and soft skills, ensuring enlightening knowledge, extending holistic education and creating a strong value system, Today, with a strength of 6000 students and over 750 teaching & non-teaching staff, the Karpagam Academy of Higher Education (KAHE) is setting new benchmarks in the educational sphere.

ABOUT THE DEPARTMENT

The department of Biomedical engineering has been established in 2016 has well qualified passionate and dedicated faculty most of whom are engaged in path breaking research and development. The Department has specialized Research labs on areas like biosignal processing, biomedical image Processing and Virtual Bio Instrumentation lab. The Department has signed MOU with many industries for research projects and enhancing employability.

ABOUT THE WORKSHOP

Today Machine Learning dominates over every other technology in the present era. The benefits of Machine Learning are enhancing our horizons of thinking and help you to build some of the amazing real-world projects based on computer analysis. This workshop focuses on Bio-Signalprocessing using Machine learning concepts on various applications.

REGISTRATION FORM

Analysis of BioSignal processing using Machine Learning Algorithms

On

5-8th February 2020

Name :

Register Number :

Class :

Department :

Address :

Contact Number :

E-mail :

Date :

Signature :

Organizing Secretary

VALUE ADDED COURSE

ANALYSIS OF BIO-SIGNAL PROCESSING USING MACHINE LEARNING ALGORITHM

Syllabus

Objective of the Value Added Course:

The VAC is designed to impart the students with the knowledge of MATLAB programming language.

- To familiarize the students with basics of Bio Signal processing.
- To enhance knowledge base and develop the programming skills of students for implementing biomedical applications with machine learning techniques.

Outcome of the Value Added Course:

By the end of the course, the students will be able to program the different machine learning techniques with MATLAB programming language.

- Introduction to MATLAB programming
- Matrix Generation
- Array operations and Linear equations
- Control flow and operators
- Introduction to Signal processing toolbox
- Analysis with Discrete Time Signal
- Design of Digital filter
- Introduction to Feature Extraction
- Principle Component Analysis(PCA)
- Linear Discriminant Analysis (LDA)
- Statistical feature Extraction
- Classification Algorithms
- Support Vector Machine
- Implementation of Support Vector Machine
- Artificial Neural Network

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Food Product Development

A Value Added Course

Organized by

Department of Food Technology

Karpagam Academy of Higher Education

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Certificate will be issued at the end of the course

Venue: UM 613 lab

Course start date: 05 Feb 2020

Total course hours: 30 Hours

Course Co-ordinator: Mr.Premkumar J Ap/Food Tech

****

Schedule for Value Added Course

S.No	Date/Time	Title	Instructors
1.	05.02.2020/4.00-5.00pm	Introduction to Food Product Development	Mr.Premkumar J
2.	06.02.2020/4.00-5.00pm	Value addition in Fruits and Vegetables	Mr.V.Arun Joshy
3.	07.02.2020/4.00-5.00pm	Value addition in Milk	Mr.Premkumar J
4.	08.02.2020/9.00am-4.00pm	Preparation of Vegetable Pickle Preparation of Tomato Soup Mix/Dehydrated tomato Preparation of Milk Powder Preparation of Yoghurt	Mr.Premkumar J Mr.V.Arun Joshy Ms.Nithiya Priya
5.	13.02.2020/4.00-5.00pm	Value addition in Cereals, Pulses and Millets	Ms.Nithiya Priya
6.	14.02.2020/4.00-5.00pm	Value addition in Eggs	Ms.Nithiya Priya
7.	15.02.2020/9.00am-4.00pm	Preparation of Vadagam /murukku mix Preparation of Soya Milk Preparation of Egg Pudding Preparation of Mayonnaise	Mr.Premkumar J Mr.V.Arun Joshy Ms.Nithiya Priya
8.	29.02.2020/9.00am-4.00pm	Food Processing Industry	Mr.Premkumar J Ms.Nithiya Priya

Value Added Course

Product Development

Instruction Hours : 30 Hours

Course Outcomes

The goal of this course is for students to

- Define the industrial strategies for product development and marketing techniques
- Explain the types, nutritive value, processing and applications of fruits and vegetables
- List the various composition, types, physicochemical properties of milk and milk products
- Discuss the various categories, milling techniques, nutritive values and applications of cereals, pulses and millets
- Outline the composition, nutrition, quality, preservation, processing and applications of egg and egg products

Course Objectives

Upon successful completion of the course, students will be able to,

1. Adapt the principles of new product development and innovative marketing strategies for new product development
2. Formulate a value added product from the fruits and vegetable using available resources
3. Design a innovative product without altering the nutrient content from milk
4. Identify and create new formulations to develop a value added product based on cereals and millets
5. Practice the product development techniques to manufacture a new product from pulses
6. Produce egg based new products and to measure the quality of eggs

Unit - 1 Introduction **(1 hours)**

Basis of product development- Defining and Characterizing New Food Products-Marketing Characteristics of New Products-Why Undertake New Food Product Development

Unit –II Value addition in Fruits and Vegetables **(1 hours)**

Types of fruits and vegetables-Nutritive value - Dehydration –Types and Methods-Applications.

Unit –III Value addition in Milk **(1 hours)**

Milk-Composition-Nutritive value-physico-chemical constituents of milk-processing of milk and applications

Unit –IV Value addition in Cereals, Pulses and Millets **(1 hours)**

Cereals and Pulses - Millets –Types - Processing – Milling- Nutritive value - Applications

Unit –V Value addition in Eggs **(1 hours)**

Egg-Composition-Nutritive value of egg-Evaluation of egg quality preservation-and Processing and application

Laboratory Experiments **(16 Hours)**

Preparation of Vegetable Pickle
Preparation of Tomato Soup Mix/Dehydrated tomato
Preparation of Milk Powder
Preparation of Yoghurt
Preparation of Vadagam/murukku mix
Preparation of Soya Milk
Preparation of Egg Pudding
Preparation of Mayonnaise

Filed Visit: Food Processing Industry **9 hours**

Reference

Gordon W. Fuller. New Food Product Development: From Concept to Marketplace, Third Edition, CRC Press, 2011 (ISBN 13: 978-1-4398-1865-7)

Gopalan, C., Ramshastri, B.V., Balasubramaniam, S.C. Nutritive Value of Indian Foods. National Institute of Nutrition, Hyderabad, ICMR. 2016

Longvah, T. Ananthan, R. Bhaskarachary, K. Venkaiah, K.. Indian Food Composition Tables. National Institute of Nutrition, Hyderabad, ICMR. 2017

KARPAGAM ACADEMY OF HIGHER EDUCATION
Coimbatore - 641021

Value Added Course

on

WATER TECHNOLOGY AND WASTE WATER TREATMENT

(Course Duration: 30 Hours)

Organized by

Department of Chemistry(S&H)

Faculty of Engineering

Karpagam Academy of Higher Education
(Established Under Section 3 of UGC Act 1956)
Pollachi Main Road, Eachanari Post,
Coimbatore – 641 021

About the university

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About the Department

The Department of Science and Humanities provide the basic Science courses and English courses to all the BE / BTech Students . The research specializations of the department are Fluid Dyanmics, Topology, Solid state Physics, Inorganic Chemistry, Organic Chemistry, Physical Chemistry and Nano Chemistry. The Department has well Physics and Chemistry Laboratories and a team of dedicated faculty members who have experience in the Industry as well as Academic.

WATER TECHNOLOGY AND WASTE WATER TREATMENT

COURCE OBJECTIVE

The goal of this course is for students to

1. Understand the source, parameter and uses of water
2. Understand the types of impurities and its removal
3. Understand the basic method of treating waste water
4.

COURCE OUT COME

Upon completion of the course the students will be able to

1. Rationalise different types of impurities
2. List the various methods in the purification of water
3. Distinguish the method of purification for domestic and industrial use
4. List the various process of in waste water treatment

Unit-I Water Resource and Water quality Standards

Water and water quality standards: Water resourses – Surface and Ground water - Water quality for potable water and industrial use Desirable limits, Permissible limit, PPM, PPB. Drinking Water Standards of BIS, International water quality standards, BIS (Bureau of Indian Standards), Safe limits for Electrical Conductivity for Irrigation Water, Guidelines for Evaluation of Quality of Irrigation Water, Effects of water quality parameters of water being used in industries. Physical parameters (Colour, taste, turbidity, temperature), Chemical parameters (TDS Alkalinity, Hardness, salts, acids and alkalis, chlorides, fluorides, proteins, carbohydrates, organics, fats oil & grease, Hazen units, NTU,BOD, COD, DO, TDS, Trace metals, Heavy metals, tests on quality parameters. Biological parameters Pathogenicity; Disinfection; Stabilization of organic matter; Biochemical oxygen demand, Chemical oxygen demand.

Unit-II: Treatment of water

Physico-Chemical treatments: Sedimentation, Coagulation-Flocculation, Settling Tanks, Disinfection Systems: Chemicals- Chlorination and other Disinfection methods, UV, Ozonation, Aeration and Gas transfer; Precipitation; Softening; Adsorption and Ion exchange; Reverse Osmosis Technologies Membrane processes, Ultra Filtration.

Biological Processes: Lagoons; Activated sludge; Aeration; Trickling filters; Activated biofilter process; Rotating biological contactors; Secondary clarifiers

Unit-III: Waste water Treatment

Health and Environment Concerns in waste water management, Waste water characteristics, Waste water treatment methods (primary, secondary, a tertiary and/or advanced treatment and Disinfection),Waste water reclamation and reuse.

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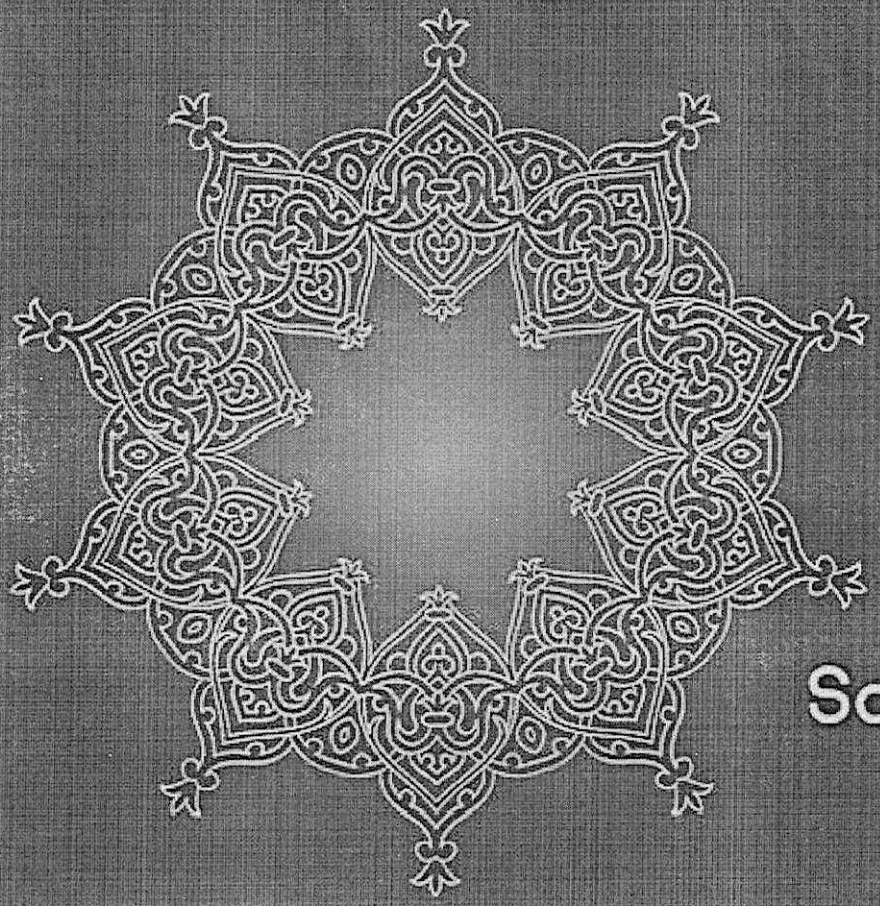
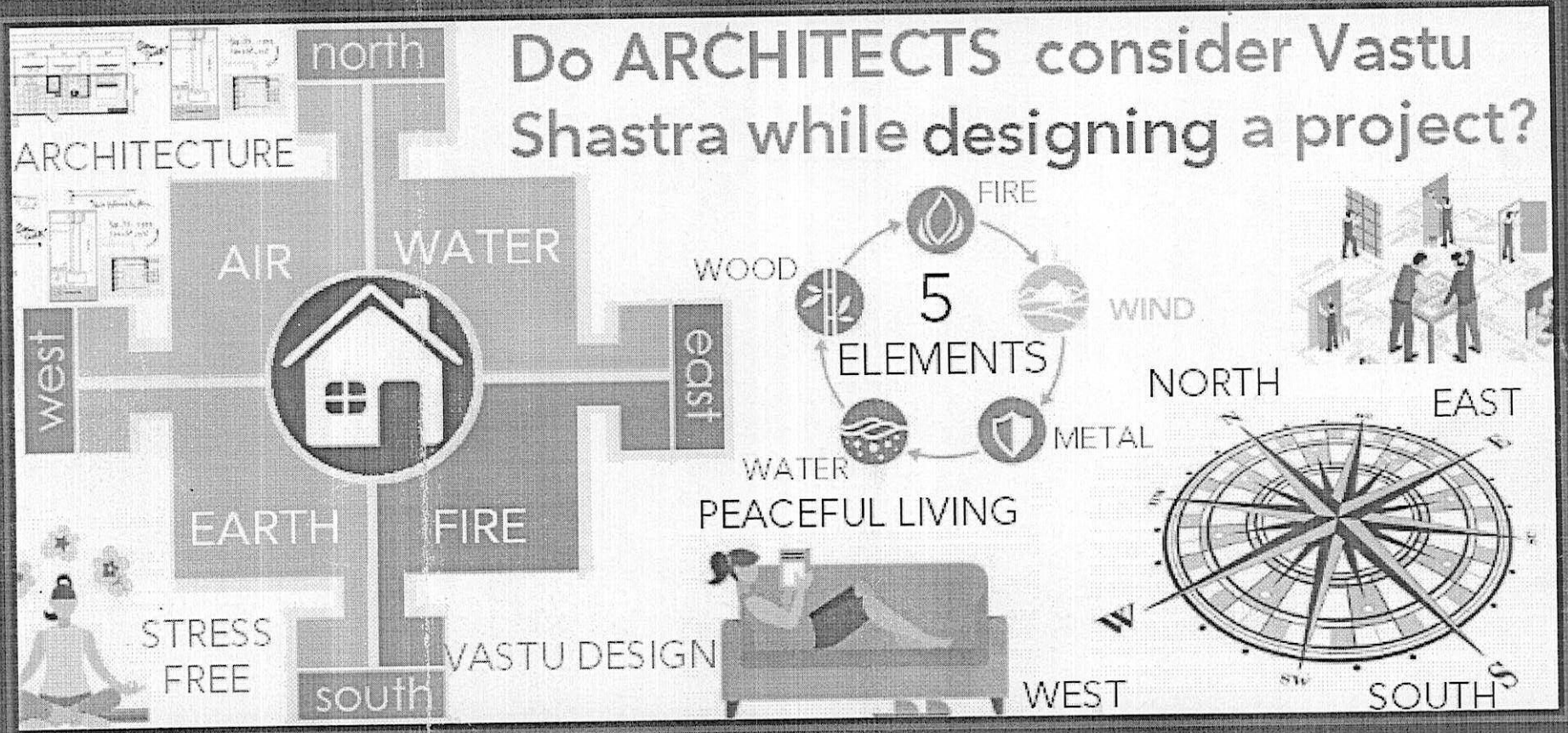


Vastu Shastra: The Science of Architecture

Faculty of Architecture, Karpagam Academy of Higher Education

Ar. Kathiravan. P., B.Arch, M.Arch.,


Do ARCHITECTS consider Vastu Shastra while designing a project?
north
ARCHITECTURE
AIR
WATER
west
east
EARTH
FIRE
south
STRESS FREE
VASTU DESIGN
FIRE
WOOD
5 ELEMENTS
WIND
WATER
METAL
PEACEFUL LIVING
NORTH
EAST
WEST
SOUTH

Institution : **Karpagam Academy of higher Education, Coimbatore**
Department : **Faculty of Architecture**
Course name : **Vaastu Shastra- Principles and Applications**
Course Type : **Value Added course**
Instructor : **Ar. Kathiravan.P**
No. of Hours : **30**
No. of Students : **30**

Instruction Hours / week	5	Total No. of Weeks	6	Credits	2

COURSE OBJECTIVE:

- To introduce the principles of Vaastu and relationship between building and site.
- To introduce concepts of orientation and Cosmo gram according to the Vaastu Purusha Mandala.
- To study the detailing and design of various building components and their material and method of construction as per Vaastu shastra
- To Educate about the traditional temple architecture and the modern principles and Applications in Architectural Design

COURSE OUTCOME:

- Ability to understand the principles of Vaastu Shastra
- Ability to understand the traditional site planning principles and its application in the present context.

1. INTRODUCTION TO VAASTU **Hours: 5**

Vaastu -its definition and classification -Relationship to earth- Science and Vaastu shastra
Features of good building site -good building shapes -macro, micro, enclosed and material spaces -relationship between built space and Open spaces, Soil test and veedhi shola, Life – force – Energy components

2. MEASUREMENT AND SYSTEMS **Hours :5**

Units of measurement -Tala system and Hasta system of measures -Equation of Time -space relationship, Dimensions-manayadi, Projection factors, etc

3. PLANNING -VAASTU SHASTRA PRINCIPLES AND APPLICATIONS **Hours: 5**

Orientation of building, site, layout and settlement -positive and negative energies -importance of cardinal and ordinal directions -The celestial grid or mandala and its types. The Vaastu Purusha Mandala and its significance in creation of patterns, and lay-outs, Types of lay-outs. Simple design of residential buildings, commercial, Institutional buildings

4. VAASTU -DETAILING PLAN AND SECTIONS **Hours :5**

Room Locations – Types of rooms-Building heights -Base and basement -wall and roof specifications -column and beam designs -Pitched roof and domical roofs -significance of pyramid, color- Applications and effects- Vaastu shastra Applications

5. VAASTU -MATERIALS, CONSTRUCTION AND REMEDIES **Hours: 5**

Use of wood, stone, metal, brick and time -marking technology, Landscaping in and around buildings, repairs and remedies for old buildings.

SUGGESTED READINGS:

1. Dr.V.Ganapati Sthapati -:Sthapatya Veda" Dakshina Publishing House, Chennai-41, India, 2001.
2. Stella Kramrisch -The Hindu Temple Vol.I Motital Banarsidass Publishers Pvt. Ltd., Delhi -1991.
3. K.S.Subramanya Sastri -Maya Matam -Thanjavur Maharaja Sarjoji Saraswathi Mahal Library -Thanjavur -1966.
4. Dr.V.Ganapati Sthapati -:Sthapatya Veda" Dakshina Publishing House, Chennai-41, India, 2001 .
5.Bruno Dagens -Mayamatam, Vol.I & II IGNCA and Motilal Bamarsidars Publishers Pvt. Ltd., Delhi -1994.
6.Dr.V.Ganapati Sthapati -Vastu Purusha Mandalam, Dakshina Publishing House, Chennai, 1998.
7.Ananda Kentish Coomaraswamy, Symbolism of Indian Architecture" – Historical ResearchDocumentationProgramme, Jaipur, 1983

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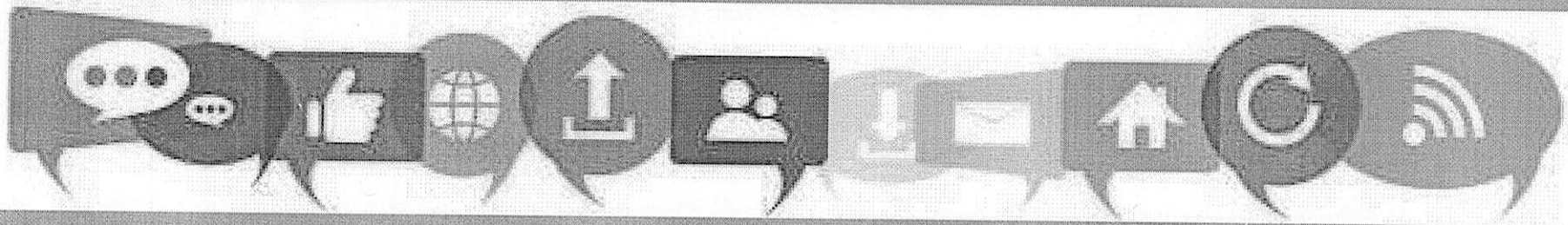


Self Grooming and Communication
For Professionals

Faculty of Architecture, Karpagam Academy of Higher Education
Ar. Ranjitha Chitti Somesh

2019-20 C.3.3 134

Institution : Karpagam Academy of higher Education, Coimbatore

Department :Faculty of Architecture

Course Name :Self Grooming and Communication for Professionals

Course Type :Value Added Course

Instructor : Ranjitha C

No. of Hours :30

Instruction Hours/Week	5	Total No. Of Weeks	6	Credits	2

COURSE OBJECTIVE:

CHAPTER 1: LANGUAGE FOCUS

HOURS : 6

Technical vocabulary – formal phrases and idioms – homophones, homonyms, often mis-spelt words – conjunctions – formation of new words – irregular verbs – plurals, gender sounds, words ending with phobia, logy etc. Grammar: Finite and infinite verbs – transformation of sentences – simple, complex and compound – phrases and clauses – question forms – question tags – expression of cause and effect, purpose and function.

CHAPTER-2: READING & LISTENING

HOURS : 6

Extensive and Intensive reading – active and passive reading – eye reading and visual perception – reading for a purpose – speed reading – reading with expression – story telling – critical and analytical reading – Listening to debates and discussions for making suitable responses.

CHAPTER-3: WRITING & SPEAKING

HOURS : 6

Cohesion and coherence in sentences and paragraphs – business letters of different kinds – report writing – writing strategies – writing comments, procedures, inferences, instructions and recommendations – writing articles.

Applied English Communication – Welcome address, vote of thanks, compeering, debates, role plays, demonstration of advertisements – group discussions – mock interviews and dialogues – checklist of making oral presentations – vocal communication techniques – voice, quality, volume, pitch, rate of delivery.

CHAPTER-4: HARD AND SOFT SKILLS

HOURS : 6

Personal attributes – verbal and non verbal communication – interpersonal abilities/ skills – empathy, leadership, good manners and sociability – problem solving – reasoning and flexibility – intrapersonal abilities – self communication – self control and self esteem.

CHAPTER-5: SOCIAL SKILLS

HOURS : 6

Facilitating interactions, understanding social roles – making a team – leading a team – dealing with different kinds of people and situations – emotional quotient and intelligent quotient – personality development – communication and body language, social etiquette –goal setting – determination, discipline and direction.

References

1. Sasikumar.V. and P.V.Damija, " Spoken English", Tata Mc Graw Hill Publishing Corporation Ltd, New Delhi, 1997
2. Ashraf Rizvi M, Effective Technical Communication, Tata McGraw Hill, Delhi 2008
3. Stanton Nicky, " Mastering Communication", Mc Millan Master Series, London,1996
4. Robert M Sherfield "Developing softskills", Dorling Kindersley (India)

Client Management

Client Management

a key to Architecture practice

Value Addition Course

Ar. Vaidehi.E.P. B.Arch., M.Plan.,

Faculty of Architecture, KAHE

1 Sociology

- **Model Relationship**
- **Client sociology**
- **People Management**

How to associate with the client on a long term and collaborate futuristively ?

How to understand the habituated environment and emotional foreground of the client ?

What is it take to know your client's business ?

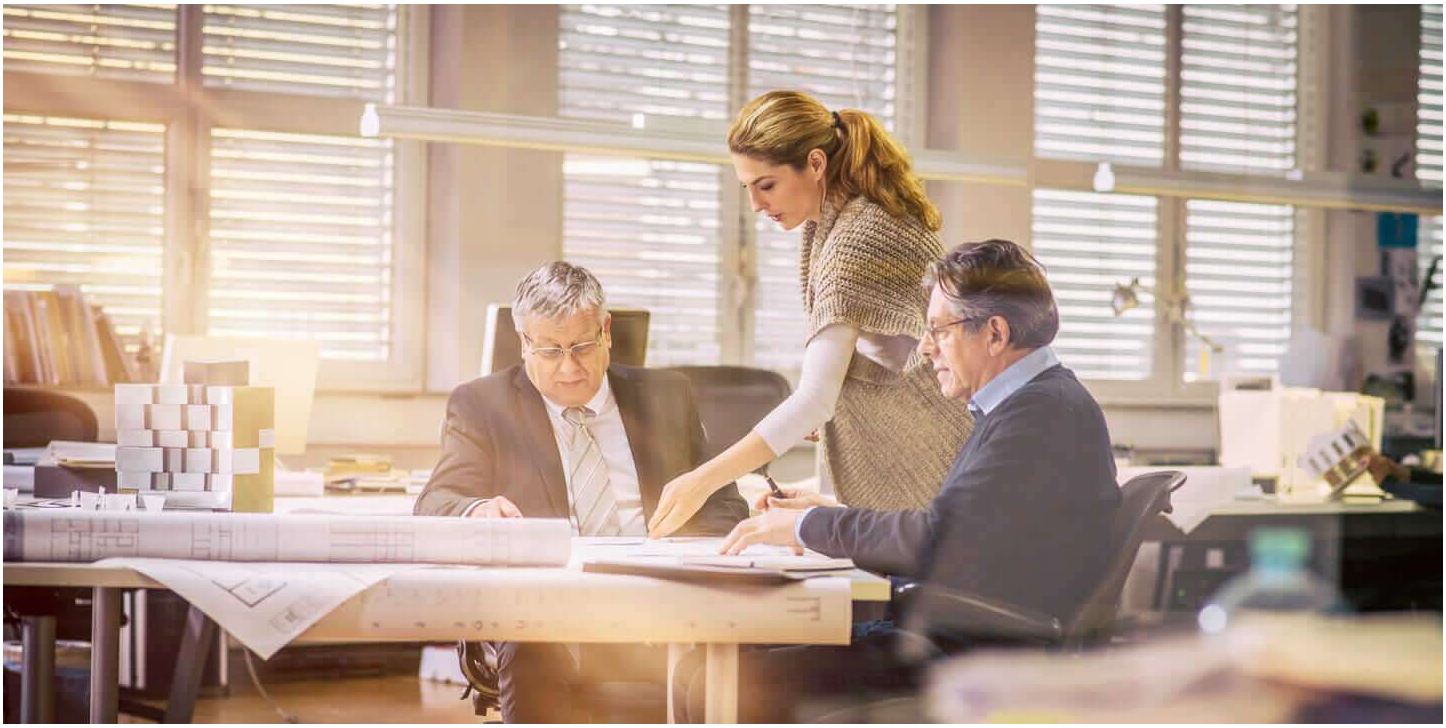
2 Architect's Interface

- **Championing the vision**
- **Presentation strategies**
- **Voice Marketing**

How to create a mechanism to progress in the architect's way ?

How can we not convey design by not only walk-throughs and visualizations, leaving little room for clients to misinterpret your designs ?

Best ways to establish the design innovations through effective communication ?



3 Client's Interface

- **Engaging and collaboration**
- **Listening and understanding**
- **Learning and Improving talent**

How to find the sweet spot between the clients desires and leading the design vision and working collaboratively with the clients ?

How to improve communication with the client ?

How to focus on a broad spectrum of knowledge ?

4 Performance

- Tactics of situation analysis
- Delivering technical
- Problem Solving

Tricks to ascertain the design in on multi consultants and user interface ?

Where can we emphasize the middle ground between conceptual and technical ?

How to imbibe the art of instantaneous solutions ?

5 Ethics

- **Reinstating design values**
- **Establishing the Faith**
- **Maintaining the ethics**

How should we create an opportunities for feedback without overpromising ?

How can we Be Honest in Setting Expectations ?

How can we build the integrity in your professional expertise consistently & get awarded of rightful remuneration ?

Institution : **Karpagam Academy of higher Education, Coimbatore**
Department : **Faculty of Architecture**
Course name : **Client Management – a key to Architecture practice**
Course Type : **Value Added course**
Instructor : **Vaidehi E.P.**
No. of Hours : **30** **No. of Students** : **30**

Instruction Hours /week	5	Total No. of Weeks	6	Credits	2

COURSE OBJECTIVE:
To train the candidates to confront the clients with confidence to put-forth good communication at practice

COURSE OUTCOME:
- To enable the ability to understand the clients
- To enable effective communication techniques
- To enable the confidence to confront tasks

CHAPTER 1 : Sociology **HOURS : 6**

Model Relationship - Client sociology - People Management
- How to associate with the client on a long term and collaborate futuristively ?
- How to understand the habituated environment and emotional foreground of the client
- What is it take to know your client's business ?

CHAPTER 2 : Architect's Interface **HOURS : 6**

Championing the vision - Presentation strategies - Voice Marketing
- How to create a mechanism to progress in the architect's way ?
- How can we not convey design by not only walk-throughs and visualizations, leaving little room for clients to misinterpret your designs ?
- Best ways to establish the design innovations through effective communication ?

CHAPTER 3 : Client's Interface **HOURS : 6**

Engaging and collaboration - Listening and understanding - Learning and Improving talent
- How to find the sweet spot between the clients desires and leading the design vision and working collaboratively with the clients ?
- How to improve communication with the client ?
- How to focus on a broad spectrum of knowledge ?

CHAPTER 4 : Performance **HOURS : 6**

Tactics of situation analysis - Delivering technical - Problem Solving
- Tricks to ascertain the design in on multi consultants and user interface ?
- Where can we emphasize the middle ground between conceptual and technical ?
- How to imbibe the art of instantaeneous solutions ?

CHAPTER 5 : Ethics **HOURS : 6**

Reinstating design values - Establishing the Faith - Maintaining the ethics
- How should we create an opportunities for feedback without overpromising ?
- How can we Be Honest in Setting Expectations ?
- How can we build the integrity in your professional expertise consistently & get awarded of rightful remuneration
-

SUGGESTED READINGS:

- Client management on house projects: facilitating client learning for successful architect-client relationships - Jessica PS Siva Kerry London
- The RIBA's Report on the Architect-Client Relationship

KARPAGAM ACADEMY OF HIGHER EDUCATION

VALUE ADDED COURSES BROCHURE 2019-20

FUNCTIONAL FOODS: PRINCPLES AND TECHNOLOGY

ABOUT THE INSTITUTION (KAHE)

Karpagam Charity Trust was founded in the year 1989 with the aim of providing excellent educational facilities by imparting practical knowledge and skills to the youth and also catering the needs of the society in general through charitable deeds.

Karpagam Academy of Higher Education was evolved in the year 2008 for the purpose of conferment of Deemed to be University status by Ministry of Human Resource Development, Vide No. F.9.24/2004.U.3 (A) dated 25.08.08.

The University Education, in today's scenario, is witnessing a huge paradigm shift and at Karpagam, we are geared to be a part of that transformation. We ensure that our education epitomizes excellence in every sphere. Steered by the dynamic spirit of our President, **Dr.R.Vasanthakumar**, an eminent industrialist, entrepreneur, culture promoter and philanthropist. **Shri.K.Murugaiah**, Chief Executive Officer, **Shri. V. Krishnakumar**, Chancellor **Dr. S.Sudalaimuthu,** Vice-Chancellor and **Dr.R.Sundararajan**, Registrar, work together to initiate the emergence of excellence. Today, with strength of more than 6000 students and over 750 teaching & non-teaching staff, the Karpagam Academy of Higher Education (KAHE) is setting new benchmarks in the educational sphere.

ABOUT THE FACULTY OF PHARMACY

The department was found in 2015 with B.Pharm degree course with approval of Pharmacy Council of India (PCI), New Delhi with Ref.No. 32 -1199/2015 – PCI/233/0-12 dt.02/09/2015 for intake of 60 admissions, later on it has increased to 120 in 2018 and has since been deeply rooted in classical pharmacy teaching and research. Currently, we have a strong team of academic and research staff committed to excel in the pharmacy education and research missions. Our team has diverse research training background from clinical pharmacy, systems pharmacy, to basic molecular and cellular pharmacy. Many of our team members have medical training or pharmacy training to support clinically-relevant education mission to our professional programs including MBBS, Dentistry, Pharmacy and Nursing. Besides, the department is also well-positioned to train students from the Life Science program in basic and molecular pharmacy and toxicology, and equip them to become pharmaceutical drug industry and clinical drug trial professionals.

ABOUT THE COURSE

Faculty of Pharmacy, Karpagam Academy of Higher Education is organizing a Value Added Course on "**FUNCTIONAL FOODS: PRINCPLES AND TECHNOLOGY**" scheduled from February, 2020 to March 2020 at KAHE, Coimbatore. The Value Added Courses aim to provide additional learner centric graded skill oriented technical knowledge, with the primary objective of improving the employability skills of Pharmacy students. The Purpose of the course is that the Educational institutions must take active steps in evolving practices and bridging the gap between Institution and Industry.

Objectives of the Course

The main objectives of the course are:

- To provide students an understanding of the nutrients value.
- To improve the skills about the structure and biochemical functions of nutrients.
- To bridge the skill gaps and make students to practice the profession.
- In Functional Foods: Principles and Technology, you will learn what constituents make a food product functional, and we will discuss the chemistry and physiological effects of functional foods.

Coverage

- About the Functional Food and its applications.
- Biochemical functions of antioxidants.
- Soluble and insoluble fiber, resistant starch, and how important these are to human health.
- Pre-and probiotics, and their biological functions.
- The functional qualities of sports drinks and also the ingredients and formulation techniques of infant formula.
- The structure and function of essential fatty acids, Minerals and Vitamins.

LEVEL OF PARTICIPANTS:

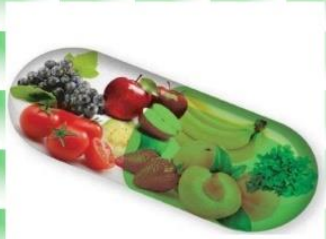
IV B.Pharm Students

HOW TO APPLY

Fill the Registration Form and Submit on or before 31st January 2020.

COURSE CO-ORDINATOR:

Mrs.G.PRAVEENA.
Assistant Professor,
Faculty of Pharmacy,
Karpagam Academy of Higher Education,
Coimbatore.



"FOODS FOR SPECIFIED HEALTH USE"

REGISTRATION FORM

VALUE ADDED COURSE

ON

"FUNCTIONAL FOODS: PRINCPLES AND TECHNOLOGY

February 2020 to March 2020

Name :
Course :
Year / Sem :
Institution Name :
Corresponding Address :

Contact No. :
E Mail :

Date :
Place :

Signature

(Photostat copies of the registration form are also accepted)

VALUE ADDED COURSE

ON

"FUNCTIONAL FOODS: PRINCPLES AND TECHNOLOGY

February 2020 to March 2020

Organized by

FACULTY OF PHARMACY

KARPAGAM
ACADEMY OF HIGHER EDUCATION
(Deemed to be University)
(Established Under Section 3 of UGC Act, 1956)

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Fax: +91-422-2980022, 2980023.
Email: info@kahedu.edu.in
Web:

FUNCTIONAL FOODS: PRINCPLES AND TECHNOLOGY (Theory)

Instruction Hours : 30

Course Objectives:

- To understand the functional foods
- To study the chemistry, functions and sources of vitamins.
- To study the structure and composition of various animal foods.

Course Outcomes:

Students undergoing this able to

- Know the Functional Foods and consumer roles involved in this growing field and about the antioxidants.
- Understand the dietary fibers how important are to human health and also the biochemical functions.
- Know the probiotics, prebiotics, sports drink and infant formula.
- Understand the Lipids and health benefits and also about minerals and vitamins.

UNIT I **8 hours**

Introduction- The definition of Functional Foods will be outlined. Students will explore both the industry and the consumer roles involved in this growing field.
Antioxidants -The chemical makeup, free radicals and biochemical functions of antioxidants. Foods explored in this unit will include cranberries, tomatoes, garlic, pomegranate and different iced teas.

UNIT II **5 hours**

Dietary Fiber- Soluble and insoluble fiber, resistant starch, and how important these are to human health. The biochemical functions of dietary fiber will be explored, and oats and oats products will be the main example used in the classroom.

UNIT III **6 hours**

Prebiotics and Probiotics -Definition of both pre-and probiotics, and their biological functions. How to develop prebiotics and probiotics. Pre- and probiotics will be used together as symbiotics.

UNIT IV **4 hours**

Sports Drink- The functional qualities of sports drinks. Electrolytes and sugar level will be a large part of the discussion.

Infant Formula- Students will learn the ingredients and formulation techniques of infant formula, and all aspects of the product that make it a functional food. Consumer trends surrounding infant formula will also be outlined.

UNIT V **7 hours**

Lipids and health benefits-The structure and function of essential fatty acids. Chemistry and health benefits of W-3 fatty acids, phytosterols, Olive oil.

Minerals and Vitamins -The chemistry, functions and sources of vitamins and minerals will be discussed, along with proposed functional claims.

TEXT BOOKS:

S.No	AUTHOR(S) NAME	TITLE OF THE BOOK	PUBLISHER	YEAR OF PUBLICATION
1	Mingro Guo	Functional Foods-Principles and Technology	Woodhead Publishing-1st Edition	2009

REFERENCES:

S. No	AUTHOR(S) NAME	TITLE OF THE BOOK	PUBLISHER	YEAR OF PUBLICATION
1	Maria Saarela	Functional Foods-Principles and Technology	Woodhead Publishing-1st Edition	2011
2	P J Fellows	Food Processing Technology: Principles and Practice	Woodhead Publishing 3rd Edition	2010

WEBSITES:

- https://www.elsevier.com/books/functional-foods/
- https://www.researchgate.net/publication/251610155_Functional_foods_development_
- https://www.functionalfoodscenter.net/basic-principles-of-functional-food-science.html

KARPAGAM ACADEMY OF HIGHER EDUCATION

VALUE ADDED COURSES BROCHURE 2019-20

DIET MANAGEMENT IN HEALTH AND DISEASE

ABOUT THE INSTITUTION (KAHE)

Karpagam Charity Trust was founded in the year 1989 with the aim of providing excellent educational facilities by imparting practical knowledge and skills to the youth and also catering the needs of the society in general through charitable deeds.

Karpagam Academy of Higher Education was evolved in the year 2008 for the purpose of conferment of Deemed to be University status by Ministry of Human Resource Development, Vide No. F.9.24/2004.U.3 (A) dated 25.08.08.

The University Education, in today's scenario, is witnessing a huge paradigm shift and at Karpagam, we are geared to be a part of that transformation. We ensure that our education epitomizes excellence in every sphere. Steered by the dynamic spirit of our President, **Dr.R.Vasanthakumar**, an eminent industrialist, entrepreneur, culture promoter and philanthropist. **Shri.K.Murugaiah**, Chief Executive Officer, **Shri. V. Krishnakumar**, Chancellor **Dr. S.Sudalaimuthu,** Vice-Chancellor and **Dr.M.Palanisamy**, Registrar, work together to initiate the emergence of excellence. Today, with strength of more than 6000 students and over 750 teaching & non-teaching staff, the Karpagam Academy of Higher Education (KAHE) is setting new benchmarks in the educational sphere.

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The department was found in 2015 with B.Pharm degree course with approval of Pharmacy Council of India (PCI), New Delhi with Ref.No. 32 -1199/2015 – PCI/233/0-12 dt.02/09/2015 for intake of 60 admissions, later on it has increased to 120 in 2018 and has since been deeply rooted in classical pharmacy teaching and research. Currently, we have a strong team of academic and research staff committed to excel in the pharmacy education and research missions. Our team has diverse research training background from clinical pharmacy, systems pharmacy, to basic molecular and cellular pharmacy. Many of our team members have medical training or pharmacy training to support clinically-relevant education mission to our professional programs including MBBS, Dentistry, Pharmacy and Nursing. Besides, the department is also well-positioned to train students from the Life Science program in basic and molecular pharmacy and toxicology, and equip them to become pharmaceutical drug industry and clinical drug trial professionals.

ABOUT THE COURSE

Faculty of Pharmacy, Karpagam Academy of Higher Education is organizing a Value Added Course on **"DIET MANAGEMENT IN HEALTH AND DISEASE"** scheduled from February 2020 to April 2020 at KAHE, Coimbatore. The Value Added Courses aim to provide additional learner centric graded skill oriented technical knowledge, with the primary objective of improving the employability skills of Pharmacy students. The Purpose of the course is that the Educational institutions must take active steps in evolving practices and bridging the gap between Institution and Community. The course mainly highlights that the Diet is essential for good health and nutrition in addition with the pharmaceutical products. It also creates the awareness about the diet especially to the health care professionals and the community.

Objectives of the Course

The main objectives of the course are:

- Gives an insight into the diet management in health as well as in disease conditions.
- Helps in selection of foods, preparation methods and planning the diet effectively to tackle the disease and to maintain the body needs.
- To improve the Quality of Life.

Coverage

- Health and Disease
- Nutrition in different stages
- Therapeutic diets
- Dietary Modifications
- Energy Calorie Diets
- Clinical and Nutritional Aspects
- Dietary Management in several ailments

LEVEL OF PARTICIPANTS:

III B.Pharm Students

HOW TO APPLY

Those who are willing to join this program, Fill the Registration Form and submit on or before **31.01.2020.**

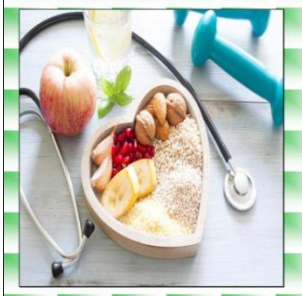
Course Co-ordinator

Ms. C. AARTHI PRIYA

Assistant Professor,

Karpagam Academy of Higher Education,

Coimbatore.



REGISTRATION FORM

VALUE ADDED COURSE

ON

"DIET MANAGEMENT IN HEALTH AND DISEASE"

February 2020 to March 2020

Name :

Course :

Year / Semester :

Institution Name :

Corresponding Address :

Contact No. :

E-Mail :

Date :

Place :

Signature

(Photostat copies of the registration form are also accepted)

VALUE ADDED COURSE

ON

"DIET MANAGEMENT IN HEALTH AND DISEASE"

January 2020 to March 2020

Organized by

FACULTY OF PHARMACY

KARPAGAM

ACADEMY OF HIGHER EDUCATION

(Deemed to be University)

(Established Under Section 3 of UGC Act, 1956)

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Phone: +91-422-6471113, 6471114, 6471115.

Fax: +91-422-2980022, 2980023.

Email: info@kahedu.edu.in

Web:

DIET MANAGEMENT IN HEALTH AND DISEASE (Theory)

Instruction hours: 30

Course Objectives:

- This subject will give an insight into the diet management in health as well as in disease conditions.
- It also helps in selection of foods, preparation methods and planning the diet effectively to tackle the disease and to maintain the body needs.
- The subject provides the basic knowledge required to reduce the malnutrition and to improve the quality of life.

Course Outcomes:

Upon completion of this course the student should be able to:

1. Explain the major roles of diet in both health and disease.
2. Describe the risk factors increasing in disease conditions due to lifestyle modifications.
3. Identify to select and utilize the diet of an individual.
4. Links the nutrition and health of an individual changes in the preparation of food.
5. Able to counsel the individual on the diet which is related to age,sex and other factors involved in the individual.

Course Content:

UNIT-I **4 Hours**

Introduction to Health:

Definition and determinants of Health, Energy requirements of Humans, Principles and Classification of Therapeutic diets, Interaction between drugs, nutrients and nutritional status.

UNIT- II

Nutrition in different stages: **6 Hours**

Nutrition in Adulthood, Nutrition in Pregnancy and Lactation, Nutrition in Infancy, Nutrition in Adolescence, Nutrition in Old Age.

Therapeutic Diets:

Dietary Modification in Diarrhea, Dietary Modification in Constipation, Nutritional management in Fevers, Routine hospital diets.

UNIT-III **4 Hours**

Enteral and Parentral feeding, Low energy and very low calorie diet, High energy diets for weight gain, Diet for febrile conditions, infections and surgical conditions.

UNIT-IV **8 Hours**

Diseases related to Mouth, Oesophagus and Stomach, Nutritional management in the diseases of the liver and pancreas, Management of diabetes, Clinical and Nutritional aspects of Hyperlipidemia.

Dietary management of cerebrovascular diseases, Review of physiology and function of normal kidney, Diseases of kidney glomerulonephritis, Dietary management in uremia.

UNIT-V **8 Hours**

Dietary management in Nephrotic syndrome and renal failure, Cancer – Nutritional and non-nutritional aetiological factors, Assessment of nutritional status in burns patients - Nutritional management of burns patients, Nutritional management in diseases on the thyroid gland, Hyperparathyrodism.

Suggested Readings:

1. Srilakshmi. Food Science. New Age International.
2. Manay, S.N, Shadaksharaswamy, M. Food-facts & Principles New Age International Publishers, New Delhi.
3. Antia, T. Food and Nutrition. Oxford.
4. Gopalan, G., Ramasastri, B.V. and Balasubramnian, S. C. Nutritive valve of the Indian Foods. National Institute of Nutrition, ICMR, Hyderabad.
5. Srilakshmi. Dietetics. New Age International.

KARPAGAM ACADEMY OF HIGHER EDUCATION

Deemed to be university

Eachanari post, Coimbatore-21

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

INVITATION

FOCUS AREAS

ADVANCED DATABASE CONCEPTS

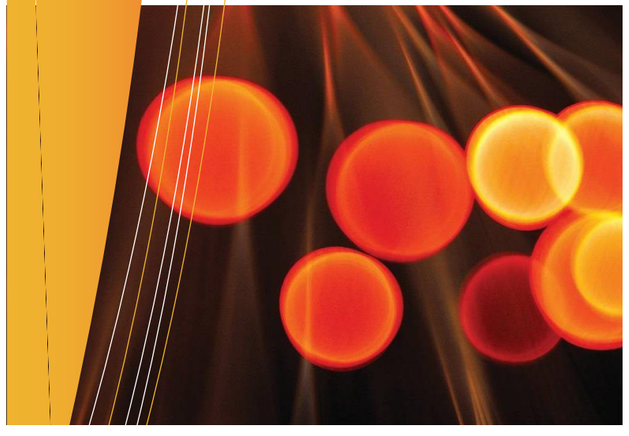
VALUE ADDED COURSES

2018-2019

The above courses are offered for the following branches.

- CSE
- ECE
- EEE

The Course will commence on **30.07.2018.**



The Department of Computer Science and Engineering is going to organize a 30 hours Value Added Course for the CSE, ECE and EEE students of Karpagam Academy Of Higher Education. The idea to organize this program was to create a learning platform where the students of KAHE could congregate and get acquainted with the various technical domains and programming platforms of Computer Science and Engineering. This further would help them to design and evolve inter-disciplinary projects and excel their expertise.

OBJECTIVES

- **Foster adaptation of modern learning methods.**
- **Projects to bring industry oriented training**

The students also get an opportunity to discuss their project ideas with other students from different domains in order to revitalize their innovation ability. The expert Faculty from the Department will deliver the lecture and lab sessions and the course will be Completed with a final evaluation of the students.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSE SYLLABUS

18VACEEE001

ADVANCED DATABASE CONCEPTS

COURSE OBJECTIVES:

- To Introduce and describe current and emerging database models and technologies.
- To Design and implement relational database solutions for general applications.
- To Explain the query processing and techniques involved in query optimization
- To Explain common database administration tasks, such as database monitoring, performance tuning, data transfer, and security.
- To Understand the concepts, current practices and issues of data warehouses and databases.

COURSE OUTCOMES:

Upon Completion of this course the student will be able to

- Know recent developments and current trend in database models.
- Develop applications for various relational databases
- Learn and optimize query processing techniques
- Evaluate designs and architectures for databases and data warehouses
- Analyze and develop tools for current issues in databases
- Organize strategic data in an enterprise and build a data Warehouse

UNIT I Relational Model Issues

ER Model – Normalization – Query processing – Query optimization – Transaction processing – Concurrency control – Recovery – Database tuning.

UNIT II Distributed Databases

Parallel databases – Inter and intra query parallelism – Distributed database features – Distributed database architecture – Fragmentation – Distributed query processing – Distributed transactions processing – Concurrency control – Recovery – Commit protocols

UNIT III Object Oriented Databases

Introduction to object oriented databases – Approaches – Modeling and design – Persistence – Query languages – Transaction – Concurrency – Multi version locks – Recovery – POSTGRES – JASMINE– GEMSTONE – ODMG model.

UNIT IV Emerging Systems

Enhanced data models – Client/Server model – Data warehousing and data mining – Web databases

– Mobile databases – XML and web databases.

UNIT V Current Issues

Rules – Knowledge bases – Active and deductive databases – Multimedia databases – Multimedia data structures – Multimedia query languages – Spatial databases.

TEXT BOOKS:

1. R. Elmasri, S.B.Navathe, "Fundamentals of Database Systems", 6th Edition,Pearson Education, 2011.
2. Thomas Connolly and CarlolynBegg, "Database Systems, A Practical Approach to Design, Implementation and Management", Pearson Education 2009.

REFERENCES:

1. Abraham Silberschatz, Henry F. Korth, S. Sudharshan, "Database System Concepts", Edition, Tata McGraw Hill, 2010.
2. C.J.Date, A.Kannan, S.Swamynathan, "An Introduction to Database Systems", 8 Edition, Pearson Education, 2006.

WEBSITES:

1. https://nptel.ac.in/courses/106104135/
2. https://nptel.ac.in/courses/106105175/
3. http://www.inf.ed.ac.uk/teaching/courses/adbs/slides/adbs.pdf

VALUE ADDED PROGRAMME

On

"Under Ground Telephone Cables in Railways"

06/07/2018 to 04/08/2018

Venue: UE 602 smart class room

Organized by

University Industry Interaction Centre

Enable | Enlighten | Enrich
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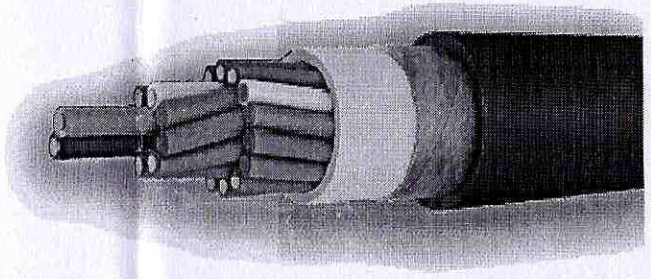
Phone No.: 0422-6471113, 6471114, 6471115, 6453777 Fax No: 0422 -2980022
Email ID: info@karpagam.com Website: www.kahedu.edu.in

Program Schedule:

Day/ Session Time 03.00 to 06.00pm	Topic
06/07/2018 & 07/07/2018	Introduction
13/07/2018 & 14/07/2018	Cables joining and laying
20/07/2018 & 21/07/2018	Maintenance
27/07/2018 & 28/07/2018	Group Discussion
03/08/2018 & 04/08/2018	workshop



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University Industry Interaction Centre

Underground Telephone Cables in Railways

Course Duration: 30 Hours

Course Objective:

- To impart the basic knowledge in the underground Telecom Cables circuits especially laying and precautions to b considered before laying.
- To impart knowledge in cable joining techniques, Maintenance and Fault finding procedures and chalk out the pla for underground cable layout for new projects..

Course Outcome:

Upon successful completion of this programme, the students should be able to

- Understand different types of cables, circuits, handle the cable joining techniques, cabling system, Layin procedure etc.
- Do Testing of laid underground cables, Maintenance / fault finding and rectification procedure to put the system i functioning. Chalk out the procedures for preventive maintenance system and future development.

Course Content:

- Introduction, Definition, Types of circuits provided through underground cables in railways, Types of cables, significance of each type
- Cables joining techniques, Types of joining, measurement of cables, precaution during laying, cable fault locators
- Maintenance of underground cables, Fault finding techniques, rectification procedures, preventive maintenance plan.
- Question/answer session, group discussion, root cause analysis, summerising the outcome of discussion, recording the final decisions
- Workshop, testing of cable in cable hut at railways wayside station, study of cable laying in the section, cable joining spot.

Department of Computer Science

The Department of Computer Science was establishedintheyear1995.TheDepartmentisforme d to provide best updated courses in computer science andgraduatecomputerscientistswhoarerecognized as bestalloverthe world.

The Department offers B.Sc (CS)in the under-graduate stream and M.Sc (CS) in the Post graduate stream. Further, it is also a full fledged Research Department, offering Full-time and Part-Time M.Phil and Ph.D research programs.

The faculty and students dedicate themselves to take the maximal advantage of modern Computer Science to solve a wide range of complex scientific, technologicalandproblems.Thedepartmentcontinu es to promote innovative research in the core Computer Scienceaswellasmultidisciplinaryapplicationareas .

Value Added Course

The goal of the Value-Added Courses is to provide supplementary learner centric graded skill oriented technical training, with the primary objective of improving the employability skills of students.

The main objectives of the program are:

- To provide students an understanding of the expectations of industry.
- To improve employability skills of students of KAHE.
- To bridge the skill gaps and make students industry ready.
- To provide an opportunity to students to develop inter-disciplinary skills

VALUE ADDED COURSE

PHOTOSHOP

Organized by

DepartmentofComputerScience

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Tamil Nadu, India.

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Fax: 0422 - 2980022,23
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Web:http://www.kahedu.edu.in

About the Course

This course covers the

- Introduction to the basics of photoshop
- All the editing tools
- Designing the posters
- To manipulate, crop, resize, and correct color on digital photos.
- To change the skin tone, create a high resolution copy of the photo, adjusting brightness or removing a blur area in just a few clicks by using adobe Photoshop

Course Co-Ordinator
D.Manjula
Asst. Professor
Dept of CS,CA & IT
Karpagam Academy of Higher Education
Coimbatore -21.

Karpagam Academy of Higher Education, Coimbatore-21
(Deemed to be University)
(Established Under Section 3 of UGC Act, 1956)
Department of Computer Science

VALUE ADDED COURSE - 2017-2018

PHOTOSHOP

Course Objectives

- To know the fundamentals of photoshop tools .
- To understand tools and techniques used in photoshop.
-

Course Outcomes (COs)

At the end of the course the student will

- Design the layouts for adverts, Brouchers,
- Gain knowledge in using selection tools
- Know to do color corrections

Unit I: Introduction to Photoshop(5 hrs)

About Photoshop- Navigating Photoshop- Menus and panels- Opening new files- Opening existing files

Unit II: Getting Started with Photoshop(6 hrs)

Exploring the Toolbox- Exploring Panels & Menus- Creating & Viewing a New Document- Setting Preferences

Unit III: **Working with Images(11 hrs)**

Zooming & Panning an Image- Working with Multiple Images, Rulers, Guides & Grids- Undoing Steps with History- Adjusting Color with the New Adjustments Panel- The New Auto-Blend & Auto-Align Layers Commands

Unit IV: Resizing & Cropping Images(10 hrs)

Understanding Pixels & Resolution-. The Image Size Command- Cropping & Straightening an Image- Adjusting Canvas Size & Canvas Rotation

Department of Computer Science, Applications & Information Technology

The Department of Computer Science was established in the year 1995. The Department is formed to provide best updated courses in computer science and graduate computer scientists who are recognized as best all over the world.

The Department offers B.Sc (CS), BCA, B.Sc (IT) & B.Sc (CT) in the under-graduate stream and M.Sc (CS) and MCA in the Post graduate stream. Further, it is also a full fledged Research Department, offering Full-time and Part-Time M.Phil and Ph.D research programs.

The faculty and students dedicate themselves to take the maximal advantage of modern Computer Science to solve a wide range of complex scientific, technological and problems. The department continues to promote innovative research in the core Computer Science as well as multidisciplinary application areas.

Value Added Course

The goal of the Value-Added Courses is to provide supplementary learner centric graded skill oriented technical training, with the primary objective of improving the employability skills of students.

The main objectives of the program are:

- Manage users and data.
- Manage basic org configuration.
- Create email templates.
- Create reports and dashboards.
- Apply and champion Chatter.
- Understand the Salesforce implementation and maintenance lifecycle.
- Extend Salesforce functionality beyond basic configuration.

VALUE ADDED COURSE

Salesforce Business Learnathon Programme

Organized by
Department of Computer Science, Applications & Information Technology

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Fax: 0422 - 2980022,23
Email: info@karpagam.com
Web: http://www.kahedu.edu.in

About the Course

This course covers the basics of how networking works, and hoe to use different devices to build the networks. Computer networking is existed for many years, and as time has passed the technologies have become faster and less expensive. This course covers the concepts of:

1. **Data Access and Security**
2. **User Management and Troubleshooting**
3. **Automate Business Processes**
4. **Using Reported Data**
5. **Data Management**

Course Co-Ordinator

K.Kathirvel
Asst.Professor
Dept of CS, CA & IT
Karpagam Academy of Higher Education
Coimbatore -21.
Ph:9600553725
Email: tamilselvancs@kahedu.edu.in

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(Established Under Section 3 of UGC Act, 1956)
Department of Computer Science
VALUE ADDED COURSE- 2018-2019
SALESFORCE BUSINESS LEARNATHON PROGRAMME
SYLLABUS

Unit I (6 hrs)

Introduction - How Salesforce Works - Salesforce Applications -Salesforce Organization - **Data Access and Security-**Controlling Org Access -Managing Who Views and Modifies Objects -Unlocking Access to Records - Sharing Access to Records -Locking Down - Individual Fields

Unit II (6 hrs)

User Management and Troubleshooting- Creating New Users - Troubleshoot Login, Record Access, and Field Visibility Issues - **Customize Salesforce -**Thinking About Your Implementation - Custom Fields, Picklists, Page Layouts, and Record Types -Creating Email Templates

Unit III (6 hrs)

Automate Business Processes- Validation Rules - Assignment and Escalation Rules - Web-to-Lead and Entitlements - Lightning Process Builder and Workflow - Approval Processes and Visual Workflow - **Report on Your Data -** Reports Tab, Folders, and Formats - Using the Report Builder - Summarize Your Data

Unit IV (6 hrs)

Using Reported Data- Getting More Insight From Your Data – Dashboards - Your Analytics Strategy - **Salesforce Everyday -** Chatter, Groups, and Communities- Chatter Answers and Ideas- Salesforce1- Making Salesforce Part of Your Day

Unit V (6 hrs)

Data Management- Data Migration Strategy - Data Quality - **Extending Salesforce-** Driving Salesforce Implementation - Custom Objects, Apps, and the Salesforce - AppExchange - Build It Yourself

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(Deemed to be University)
(Established Under Section 3 of UGC Act, 1956)
Enable | Enlighten | Enrich

TRAINING & PLACEMENT CELL ORGANIZES

APPTITUDE ABILITY

REGISTRATION:
For registration contact your concern department placement coordinator

Contact:
For further details:

TRAINING AND PLACEMENT CELL

APTITUDE ABILITY

SCOPE

To achieve the analytical and reasoning competencies and to improve their communication and presentation skills

OBJECTIVES

- To impact knowledge on both Aptitude and Soft skills to the students
- To critically evaluate and demonstrate various principles involved in solving mathematical problems and to adopt new and faster methods of calculations.
- Reinforcing competencies in soft skills which are crucial in a social setting

UNIT - I

Introduction to Quantitative Aptitude, Problems on Numbers, Average, Percentage, Profit and Loss, Interest Calculation,

UNIT – II

Logic based Venn diagram, Probability, Permutation and Combination, Logarithms, Mensuration

UNIT - II

Number Series, Blood Relation, Image Analysis, Direction, Data Interpretation, Syllogism, Problems on Ages.

UNIT – IV

Parts of Speech, Tense, Subject Verb Agreement, Active and Passive Voice, Articles, Prepositions, Degrees of Comparison

UNIT - V

Goal Setting, Interpersonal Skills, Time Management, Attitude and Behavior

Valueadded courses

Academic year 2018-2019

Offered by

DEPARTMENT OF CHEMISTRY

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KARPAGAM ACADEMY OF HIGHER EDUCATION
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Pollachi Main Road, Eachanari
Post Coimbatore-641021
Tamil Nadu, India
Phone : +91-422-6471113, 6471114, 6471115
Fax : +91-422-298002, 2980023
Email : info@kahedu.edu.in Web: www.kahedu.cdu.in

ABOUT THE KARPAGAM ACADEMY OF HIGHER EDUCATION

The Karpagam Academy of Higher Education is located in a sprawling, green, lush campus extending 26 acres. It has emerged from Karpagam Arts & Science College (Autonomous) a unit under the Karpagam Charity Trust established in 1989 founded by the great philanthropist, industrialist and educationist Dr. R. Vasanthakumar with the vision of instilling originality in the learning minds, impart quality and value- based education and engage in Research and Development with the noble objective of creating unique men and women to serve and lead the society.

Karpagam Academy of Higher Education was conferred Deemed to be University status by the Ministry of Human Resource Development in August 2008 under section 3 of the UGC Act 1956. It is a recognised Deemed University by the UGC. It is a member of the Association of Indian Universities. The University has been accredited by the NAAC in 2015. It has been Ranked 90th place by NIRF, MHRD, and Government of India in 2017.

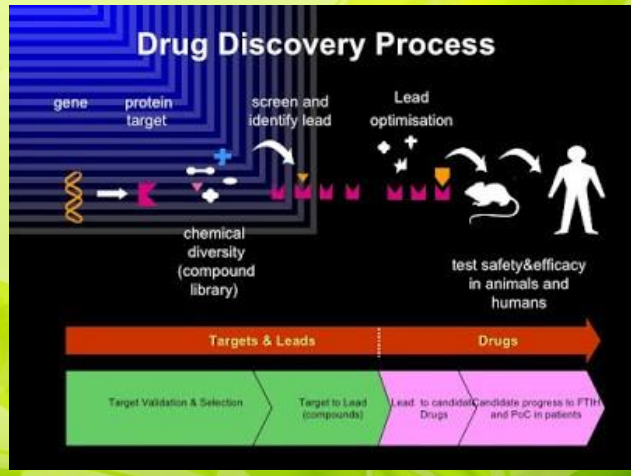
The University has 4 Faculty - Faculty of Arts, Science and Humanities, Faculty of Engineering, Faculty of Architecture and Faculty of Pharmacy. It has 25 Departments offering a wide range of 78 academic programmes from graduation to doctorate levels. The University has more than 5,000 students on campus, with a strong contingent of more than 350 teaching faculty, well supported by an almost equal number of administrative and support staff. Faculty have got good number of research projects with financial support from various funding agencies like DBT / DST / ICMR and have filed more than 45 patents. As many as 1800 Research papers have been published by our faculty in SCOPUS and Peer Reviewed Journals. The University has entered collaboration with foreign Universities, Industries, Research bodies for mutual benefit. The Institute ensures that education epitomizes excellence in every sphere and students are prepared to take on the challenges of the day and become the next generation leaders.

ABOUT THE DEPARTMENT

The Department is running Undergraduate (UG), Postgraduate (PG), M.Phil. and Ph.D. programs. The Department is equipped with sophisticated instruments like UV-Visible spectrometer, IR Spectrometer, Gas Chromatographic analyser, Micro wave oven, etc. The main objective of the department is to impart knowledge among the students in basic areas of Chemistry. Apart from the core courses knowledge about the latest trends in Chemistry including Green Chemistry, Medicinal Chemistry and Nano Chemistry are also included in the regular curriculum. Further the Department provides training to the students in the sophisticated instruments like UV-Visible, IR Spectrometer, Gas Chromatography, Microwave synthesizer, etc. to the Undergraduate and Postgraduate students to fit them to industries and to research organizations like CSIR, DAE, etc.

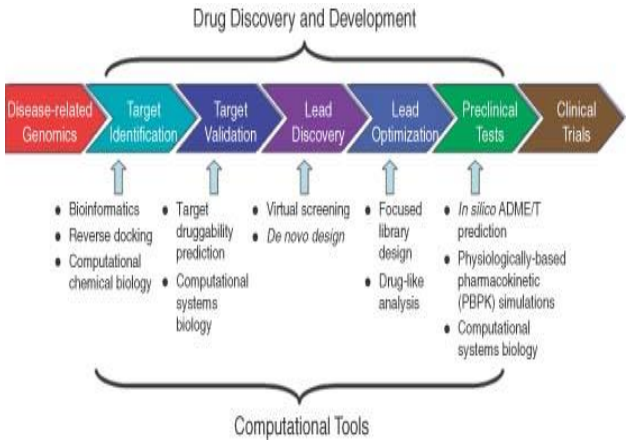
Drug Design and Development (18VACCH01)

Course Objective:
The topics are framed to enhance the student's knowledge in the various areas of molecular modelling, molecular docking, pharmacophore concepts, drug design techniques with detail concepts of all the mentioned areas.



Course Outcome:

This enables the students to get a broad idea on the drug discovery mechanisms, its related terms and concepts of designing of drugs.



COORDINATOR

Dr. S. Ravi

Professor and Head
Department of Chemistry
Karpagam Academy of Higher Education
Coimbatore - 641 021
Phone: 91- 9047174142

Dr.M.R.Ezhilarasi,

Assistant Professor
Department of Chemistry
Karpagam Academy of Higher Education
Coimbatore - 641 021

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Coimbatore-641021 Tamil Nadu, India

Value Added Course

REGISTRATION FORM

Full Name :

Class of Study :

Subject :

Institutional Address :

Contact No & E-mail :

Title of the Abstract :

Category :

Registration Fee enclosed : Free of Coast

Signature

Date:

Place:

(Photo copies of the form are also accepted)

KARPAGAM ACADEMY OF HIGHER EDUCATION

DEPARTMENT OF CHEMISTRY

Syllabi 2018-19

Value Added Course: Drug Design and Development (30hrs)

Course Objective:

The topics are framed to enhance the student's knowledge in the various areas of molecular modelling, molecular docking, pharmacophore concepts, drug design techniques with detail concepts of all the mentioned areas.

Course Outcome:

This enables the students to get a broad idea on the drug discovery mechanisms, its related terms and concepts of designing of drugs.

UNIT – I : Molecular modelling:Molecuelar Mechanics, Quantum Mechanics, Energy minimization, geometry optimization, conformational analysis, global conformational minima determination; approaches and problems. Bioactive vs. Global minimum conformations. Automated methods of conformational search. Advantages and limitations of available software. Molecular graphics. Molecular properties, reactivity, Homo, Lumo, Electrostatic potential, Solvent accessible surface.

UNIT – II : Pharmacophore concept:Pharmacophore mapping, methods of conformational search used i pharmacophore mapping. Comparison between the popular pharmacophore methods like Catalyst/HipHop, DiscoTech, GASP with practical examples, 3D QSAR Techniques.

UNIT – III : Target Based Drug Design: Design of drugs for the following biological targets Agent acting on enzymes:DHFR, HIV-protease HMG-CoA Reductase, Phosphodiesterase, ACE, Transpeptidase, β-lactamase. Agents acting on receptors: PPAR, protein kinases. Agents acting on Nucleic acids: Topoisomerase, DNA and RNA polymerase, HIV-Reverse transcriptase

UNIT – IV : Molecular docking:Rigid docking, flexible docking, manual docking. Advantages and disadvantages of Flex-X, Flex-S, Autodock and Dock softwares, with successful examples. Molecular dynamics: Dynamics of drugs, biomolecules, drug-receptor complexes, Monte Carlo simulations and Molecular dynamics in performing conformational search and docking. Estimation of free energy from dynamical methods.

UNIT – V : De Novo drug design techniques:Receptor/enzyme cavity size prediction. Predicting the functional components of cavities, designing drugs fitting into cavity. Active site analysis structure – based drug design. Informatics methods in drug design: Informatics methods in drug design: Brief introduction to bioinformatics, chemoinformatics.

REFERENCES:

1. Robert GCK, ed., "Drug Action at the Molecular Level" University Prak Press Baltimore.
2. Martin YC. "Quantitative Drug Design" Dekker, New York.
3. Lien EJ. SAR "Side effects and Drug Design" Dekker, New York.
4. William H, Malick JB "Drug Discovery and Development" Humana Press Clifton.
5. Molecular Modelling, by A. R. Leach
6. Organic Chemistry of Drug Design and Drug Action, by R.B. Silverman
7. Practical Applications of computer aided drug design, by P.S. Charifson
8. Molecular modeling in Drug Design, by C. Cohen
9. Chemical Applications of Molecular modeling, by J. Goodman
10. Pharmacophore perception, by O.F. Guner

DEPARTMENT OF MICROBIOLOGY

The Department of Microbiology was established in the year 2002. The department offers B.Sc., M.Sc., M. Phil. and Ph.D. research programs. The department is equipped with well- qualified, dedicated and experienced faculty members and have projects in the disciplines supported by various funding agencies like DBT, DST and UGC. The aim of our department is to promote quality and value based education by motivating the practical skills of students and creating awareness on the recent advances in Microbiology which will make each student as a renovator to seek remedy for the future with a mission andvision.

Cyanobacteriology:

Objectives:

- To enhance the students knowledge on the culture aspects and development of cyanobacteria technology and their applications
- To acquire an overall knowledge on the morphology, functions biological applications on cyanobacteria.
- To make the students knowledgeable on the various techniques involved.
- To give an overview on introduction, important and business ideas and bio-product development of cyanobacteria product.

APPLICATION OF CYANOBACTERIA.

- Cyanobacteria, the first oxygen-evolving group of photosynthetic Gram-negative prokaryotes.
- Cyanobacteria synthesize a vast array of novel secondary metabolites including biologically active compounds with antibacterial, antiviral, antifungal, and anticancer activities.
- Unique among microbial world and grow in diverse habitats.
- Certain other important metabolites reported from cyanobacteria, include enzymes, toxins, UV-absorbing pigments, and certain fluorescent dyes.
- Furthermore, biofuel production by cyanobacteria constitutes one of the most promising areas for biotechnological applications.
- In addition, production of alcohols and isoprenoids, biopolymers, recombinant proteins, and single-cell protein employing modern tools of genetic engineering seems attractive.
- In the field of agriculture, potent N2-fixing cyanobacteria could be exploited as bio-factory to produce biofertilizer for enriching the fertility of soil.
- There is a need to develop suitable genome engineering tools in cyanobacteria to produce fuels, value-added compounds, and feedstocks in a sustainable way.

VALUE ADDED COURSE 2018

CYANOBACTERIOLOGY

(30 hours)

Offered by Department ofMicrobiology

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2018-19 II B.Sc 177

DEPARTMENT OF MICROBIOLOGY

CYANOBACTERIOLOGY

Course Objective:

- To enhance the students knowledge on the culture aspects and development of cyanobacteria technology and their applications
- To acquire an overall knowledge on the morphology, functions biological applications on cyanobacteria.
- To make the students knowledgeable on the various techniques involved.
- To give an overview on introduction, important and business ideas and bio-product development of cyanobacteria product.

Course outcome:

- Students will be able to cultivate the cyanobacteria biomass.
- They could able to synthesis a biopesticides ,fertilizer from cyanobacterial biomass.
- They can able to produce a bio products from bio mass.
- They will obtain a knowledge about the drugs from cyanobaceria.

Unit 1:

Introduction: Origins of life and photosynthesis, Diversity of cyanobacteria, Fossil history of cyanobacteria The Oceanic Cyanobacterial Picoplankton.

Unit 2:

Genomics of Cyanobacteria: Gene transfer to cyanobacteria in lab and in nature, Molecular ecology and environmental genomics of cyanobacteria, comparative genomics of marine cyanobacteria, stress response-regulatory system and regulated genes.

Unit 3 :

Molecular Biology of cyanobacteria: Molecular Biology of Cyanelles and Chloroplast Origins and Evolution; Supramolecular Membrane Organization; Phycobilisome and Phycobiliprotein Structures; The Use of Cyanobacteria in the Study of the Structure and Function of Photosystem II and The Cytochrome Complex; Photosystem I in Cyanobacteria; The F-type ATPase in Cyanobacteria: Pivotal Point in the Evolution of a Universal Enzyme.

Unit 4 :

The Biochemistry and Molecular Regulation of Carbon Dioxide Metabolism in Cyanobacteria, Genetic Analysis of Cyanobacteria, Heterocyst Metabolism and Development, Differentiation of Hormogonia and Relationships with Other Biological Processes;

COURSE BROCHURE

Scientific Writing

(January – February, 2019)

A value added course

Conducted by

DEPARTMENT OF BIOCHEMISTRY

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Course Objectives:

This course aims to demystify the scientific writing skills and teach the fundamentals of effective scientific writing. The primary focus of the course is to instruct students the process of writing and publishing scientific manuscripts and to give knowledge on different databases and citation indexes in publication industry.

Course Outcomes:

- To understand the importance of effective writing of an article.
- To learn the process of scientific writing and publishing.
- To study the impact of various citation indexes on scientific journals.
- To practice systematic review search in open scientific databases.

Course Content:

- Introduction to Journal article
- Citation indexes
- How to write a paper in Scientific journal - style and format
- Systemic review for writing a review article
- Basics in MS Office suite.
- Basics in proof reading and copy editing.
- Conference oral and poster presentations
- Plagiarism
- Hands-on training in MS Office suite, citation databases, journal article writing

Enrollment last date:
2th January, 2019

Course starting date:
Batch 1: 2nd January, 2019
Batch 2: 28th January, 2019

Course Coordinator:
Dr. L. Hariprasath
Dept. of Biochemistry
Mobile; 9677671195;
hariprasath80@gmail.com

M.Sc Biochemistry **2018-2019**

Semester II

19BCPXXX: SCIENTIFIC WRITING

Instruction hours/week: L: 2 T: 0 P: 2 **Marks: Internal: 0 External: 100 Total: 100**

End Semester Exam: 3 Hours

Course Objectives:

This course aims to demystify the scientific writing skills and teach the fundamentals of effective scientific writing. The primary focus of the course is to instruct students the process of writing and publishing scientific manuscripts and to give knowledge on different databases and citation indexes in publication industry.

Course Outcomes:

1. To understand the importance of effective writing of an article.
2. To learn the process of scientific writing and publishing.
3. To study the impact of various citation indexes on scientific journals.
4. To practice systematic review search in open scientific databases.

Unit I :

Journals: Introduction to Journal article – Types of articles: Original research, short communication, review articles; Structure and sections of an article. Bibliography and reference styles.

Unit II:

Citation indexes: Types of scientific indexes – Science citation index, Indian citation index, Web of Science and Clarivate analytics, scopus, Book citation index, Conference proceedings citation index, Emerging sources citation index. Impact factor, Journal citation report, H-index, i10 index, scimago.

Unit III:

How to write a paper in Scientific journal style and format: Rationale of research problem, Introduction – Precise about the background of research and clear aims and objections. Materials & methods – the organisms studied, sample used, study design, protocol for collecting data and statistical tools. Strategy for writing the results section. Use of tables, figures, and diagrams. Table and figure legands. Discussion with others findings. Acknowledgement, literature cited.

Unit IV:

Systemic review for writing a review article. How to search effectively in open databases for accurate results? Basics in MS Office suite. Basics in proof reading and copy editing.

Unit V:

Conference oral and poster presentations, grant application writing styles and tips. Plagiarism.

Practicals:

1. Hands on training on basics of MS-word, MS-excel and MS-powerpoint (Preparing charts, tables and slides)
2. Hands on training on search engines: PubMed, Google scholar, Scopus, Sciencedirect.
3. Practice of article writing. Identifying and analyzing the strength and weakness of sample manuscripts.
4. Writing of article from the available raw laboratory data.

Suggested reading:

1. Elise Hancock, Ideas Into Words: Mastering the Craft of Science Writing – ISBN 0801873304
2. Richard Dawkins, The Oxford Book of Modern Science Writing – ISBN 0199216819
3. Deborah Blum et al, A Field Guide for Science Writers, 2e – ISBN 0195174991
4. Rebecca Skloot, The Best American Science and Nature Writing 2015 – ISBN 0544286740
5. Michael J. Katz, From Research to Manuscript: A Guide to Scientific Writing.

About the Institution:

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The Institution has collaborated with Foreign Universities, Industries, and Research Bodies for mutual benefit. The Institution ensures that education epitomized excellence in every sphere and students are prepared to take on the challenges of the day and become the next generation leaders.

About the Department of English

The Department was established with the main objective of developing competency in English Language by exposing the students to different genres of English Language. The Department offers M. Phil and Ph. D research programmes. A modern language laboratory is functioning with Audio Visual aids, modern teaching tools and latest software to promote Language and Linguistic studies.

The students will also be educated to exhibit the best and appropriate manners in formal settings. They learn about the appropriate language, tone, and body language to use in professional environment. They also learn how to give information and respond to requests on the phone and email. The course is a combination of lectures and comprehension, vocabulary and grammar exercises.

Department of English

Value Added Course

2017-2018

English for Professionals

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Phone : 0422-6471113-5, 6453777 Fax No : 0422 -2980022-3

Email : info@karpagam.com Web : www.kahedu.edu.in

Value Added Course:

The value added courses provide the students an option to learn them parallelly with their degree. The aim of value added course is to provide the students the opportunities to learn beyond their major subject and helping them to understand and comprehend the expectations of the industries and preparing them for their future. The provided value-added course are market oriented and are designed improve their skill. They are sure to have utility value which students can use it for employment.

Considering the fact that English is not just a language but a skill that has got much significance in the globalized world, the courses are designed with the objective of opening to the students a panorama of courses to improve their English language skills.

In several fields, having good grab of English language skills is considered a benchmark in analyzing a person's ability to express, communicate, understand, evaluate and respond.

A Brief Introduction to the Course English for Professionals:

The course provides an elaborate series of instructions to the students to develop their professional English, beginning from a strong and impressive self-introduction to skillfully tackling arguments. The students would be receiving training on array of professional skills beginning from expressing ideas and thoughts briefly to arguing elegantly. The activities like role playing, interviewing, and group discussion are intended to be a part of this course.

COURSE CO-ORDINATOR

Dr. S. Selvalakshmi

Head of the Department, Department of English
Karpagam Academy of Higher Education
For Queries Contact:
english.hod@gmail.com

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Coimbatore - 641021.
Department of English

English for Professionals **- Syllabus**

Duration: 30 hours

Course Objectives

- To communicate effectively in professional environment
- To enhance confidence to deal with people and basic issues in the business world.

Course Outcomes

- Inculcate confidence for the students to face the cooperate world.
- Educate the students to face the professionals.

Unit I

Introduction to Professional English-Professional presence and influence-Workplace Conversations

Unit II

Managing People-Managing Projects-Business negotiations

Unit III

Business Writing-Business E-mail-Business Letters

Unit IV

Participating in meetings-Leading Meetings-Meeting Etiquettes

Unit V

Business Presentation-Effective ways to Prepare and do Business Presentation-Virtual discussion.

REFERENCES:

P.Eliah. 2014, ***A Handbook of English for Professionals Paperback***

Gupta S.C. ,2014, ***English Grammar and Composition*****, Arihant Publications.**

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Faculty have got good number of research projects with financial support from various funding agencies like DBT / DST / ICMR and have filed more than 60 patents. As many as 2,200 Research papers have been published by our faculty in SCOPUS. The Institution has collaborated with foreign Universities, Industries, and Research bodies for mutual benefit. The Institute ensures that education epitomizes excellence in every sphere and students are prepared to take on the challenges of the day and become the next generation leaders.

ABOUT THE DEPARTMENT

Department of Management was the first Post – Graduate course started by the institution in the year 1996. It offers two year full time MBA programme leading to a Master's degree in Management, M.Phil and Ph.D programmes leading to a Research Degree. The Department has an exclusive facility which is endowed with excellent infrastructure and a dedicated team of faculty members to train the students to meet the growing needs of the society. The Department follows a multidisciplinary approach to provide the necessary knowledge, skill and training to the students. The activities of the department are directed towards the all-round development of the individual keeping in mind the expectations of the recruiters and the challenges of the environment.

ABOUT THE COURSE

Course Objectives

1. To educate students about how exchange-traded funds (ETFs) work, their differences from other types of mutual funds, and the strategic issues for ETFs going forward
2. To expose students to the concepts of Sharpe ratios and mutual fund/exchange-traded fund fees and their role in selecting investments
3. To expose students to the principals of portfolio theory

Course Content

Module 1: Risk and Return Measures

Module 2: Stock Picking

Module3: Portfolio Strategies

Module 4: Background on Trading

Module 5: Foreign Exchange Risk

Key Features of the Course

- 30 Hours Class room training Course
- Contact Hours Certificates
- Online trading Practices
- Practices in managing portfolio
- Examination

Course Coordinators

Mrs. P. Sathya Bama
Assistant Professor
Department of Management
Karpagam Academy of Higher Education
Coimbatore-641021

Dr.A.Dharmaraj
Assistant Professor
Department of Management
Karpagam Academy of Higher Education
Coimbatore-641021

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Department of Management

ACADEMIC YEAR 2017 - 2018

Value Added Course

CAPITAL MARKET TRAINING PROGRAM

Capital Market Training Program
Syllabus

UNITS	CONTENT
UNIT-I	**INTRODUCTION OF CAPITAL MARKET:** Broker - Sub Broker - Investment Consultants, PMS Investor Service - Office setup - Client Enrollment - KYC norms - UCC Upload - NSE/BSE/Depository BO account - Broker Client Relations - Legal Implication - Disputes - Arbitration Mechanism - Auction - Stock Exchange - Clearing Corporation Trading - Clearing and Settlement Mechanism- Margins - Capital adequacy norm - volume - Turn over - Corporate Manger - Broker / Sub- broker terminal management - Risk management - RDM - Internet broking - WAP(For Trading Members)
UNIT-II	**BASIC:** Introduction - Market Segments - Key Indicators - Market Capitalisation - Products and Participants - Reforms in Indian Security Market - Brief discussion about Equity and Derivatives Markets. **REGULATORY:** Govt of India - RBI - SEBI - SAT - Stock Exchange - Testing and Certifications.
UNIT-III	**MARKET INTERMEDIARIES:** Market intermediaries - Registration - Renewal - Testing & Certification-Files - FII'S - FI'S - QIB - NRI - OCB - PIO. Corporate benefits - Bonus - Split - Merger and acquisition - Demerger - Face value - Market lot - Reduction of Share capital - demat.

UNIT-IV	**TECHNICAL AND FUNDAMENTAL ANALYSIS:** Technical analysis - Charting - Fundamental analysis - Trading Patterns - Study of annual report ratios - Investment ideas, Recommendations, Exams point of view .Discussion and Business Franchising. Accounting and Taxation ., Sales practices and Investor protection practices.
UNIT-V	**MUTUAL FUND & NEW TECHONOLGY:** Mutual Fund - A) What is MF , Benefits , Costs, Types of MF, Growth of MF in India, Models to measure performance of MF. Technology in Share Market- B) Technology & its usage, Mode of trading, Mobile application , online apps , Smart phone revolution , Information and Database Management , High Frequency trading.

ORGANIZING COMMITTEE

Convener

Dr. R. Thilagavathi, M.S.,Ph.D
Professor & Head
Department of Biotechnology (FoE)
Karpagam Academy of Higher Education
Coimbatore-21

VAC Coordinator

Mr.S.Adam, M.Tech
Assistant professor
Department of Biotechnology (FoE)
Karpagam Academy of Higher Education
Coimbatore-21

VENUE

Bioinformatics Laboratory, (UM-610)
Department of Biotechnology,
Faculty of Engineering,
Karpagam Academy of Higher Education,
Coimbatore-21

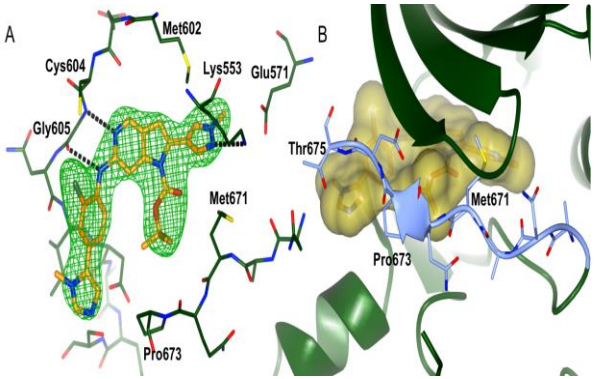
Registration Form

Name :
Designation :
Organization :
Contact Number :
E Mail ID :
Participants : Internal / External
Date :
Place :

Signature of the Participant:

VALUE ADDED COURSE
ON
"BASIC BIOINFORMATICS TOOLS AND TECHNIQUES" - (BBTT-2017)

5th - 9th DECEMBER 2017



Biotech Association

Organized by
Faculty of Engineering
DEPARTMENT OF BIOTECHNOLOGY

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ABOUT THE INSTITUTION

Karpagam Academy of Higher Education (KAHE) established under Section 3 of UGC Act 1956 is approved by Ministry of Human Resource and Development, Government of India. Dr. R. Vasanthakumar, the president of the trust a philanthropist, industrialist, entrepreneur and culture promoter. Contemporary infrastructure, modern teaching methodologies, career oriented training, excellent placements and the finest faculty have always been Karpagam's hallmark. Besides technical expertise, the Karpagam Academy of Higher Education (KAHE) has made a mark for itself since its inception by developing communication and soft skills, ensuring enlightening knowledge, extending holistic education and creating a strong value system, Today, with a strength of 6000 students and over 750 teaching & non-teaching staff, the Karpagam Academy of Higher Education (KAHE) is setting new benchmarks in the educational sphere.

ABOUT THE DEPARTMENT

The Department of Biotechnology, Faculty of Engineering was established in the year 2013 with the vision of inculcating and developing value based Biotechnology professionals so as to cater to the needs of even the least in the society by providing education with state of-art facility in the field. The department offers UG Biotechnology programme (B.Tech) and Ph.D Biotechnology programme. The Department has well qualified and experienced faculty strength who constantly motivates, inspires and guides the students for their personal growth and to become technically competent. The department is booming with all the essential facilities and infrastructure to cater to the needs of the students and the society. The research specialization of the department includes drug discovery, production & purification of enzymes, commercial production & scaling up of bio products, developing recombinant products and nanomaterials for biological applications & molecular dynamics simulation of enzymes.

OBJECTIVE OF THE VALUE ADDED COURSE

The objective of the training program is to give exposure to the participants to concepts, skills and tools of bioinformatics and to provide hands on training on various bioinformatics approaches such as basics of sequence analysis, computer-aided drug designing, Molecular docking, Molecular modeling, Protein-ligand interaction analyses through online as well as offline tools and software.

COURSE CONTENT

- Introduction in bioinformatics
- Biological databases
- Sequence Analyses
- Phylogenetic Analyses
- Homology Modelling
- Post Structural Analyses
- Molecular docking

LEVEL OF PARTICIPANTS

Faculty, Research scholars and Life science students.

PREREQUISTIES

Minimum skill in operating computer.

REGISTRATION DETAILS

Registration Begins

November 15, 2017

Registration Closes

December 2, 2017

Value Added Course Dates

December 5th -9th, 2017 (9.30 am – 12.30 pm, 1.30 pm – 4.30 pm)

No of participants limited to 30. No registration fee.

For Further Queries Contact: Mr. S. Adam, AP, Biotech Ph: 9025280075

KARPAGAM
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(Deemed to be University)
(Established Under Section 3 of UGC Act, 1956)

VALUE ADDED COURSE

ON

"BASIC BIOINFORMATICS TOOLS AND TECHNIQUES"

Biotech Association

(BBTT-2017)

5th - 9th DECEMBER 2017

Organized by

Faculty of Engineering

DEPARTMENT OF BIOTECHNOLOGY

Course Objectives

The goal of this course is for students to

- Understand the basics of bioinformatics
- Analyze the bioinformatics databases
- Apply the concept of bioinformatics tools for modeling

Course Outcomes

Upon successful completion of the course, students will be able to

- Restate the basics of bioinformatics
- Interpret the database for modeling
- Design the modeling by using basic bioinformatics tools

COURSE CONTENT

- Introduction in bioinformatics
- Biological databases
- Sequence Analyses
- Phylogenetic Analyses
- Homology Modelling
- Post Structural Analyses
- Molecular docking

VAC Timings

(9.30 am – 12.30 pm, 1.30 pm – 4.30 pm)

Value Added Course

Entrepreneurship and Skill Development in (2017-2018)

Organized by

DEPARTMENT OF BIOTECHNOLOGY

(DST-FIST sponsored)

KARPAGAM ACADEMY OF HIGHER EDUCATION

(Deemed to be University Established Under Section 3 of UGC Act 1956)

Pollachi Main Road, Eachanari Post,

Coimbatore- 641021, Tamil Nadu, India.

Phone: 422- 2980011-14.

Fax: **+91- 422- 2980022.**

Email: info@kahedu.edu.in

Web: kahedu.edu.in

ABOUT THE DEPARTMENT

The Department of Biotechnology at KAHE is a center for excellence in research. Biotechnology is the commercial application of living organisms and their metabolites can lead to the formation of pharmaceutical drugs. This implies a set of laboratory techniques developed within the last 20 years that have been responsible for the tremendous scientific and commercial interest in Biotechnology, the rise of many new companies, and the redirection of research efforts and financial resources among established companies and universities. Our students have received many awards from various Scientific Associations.The department offers 3-year UG degree and a 2-year PG degree, M.Phil and Ph.D research programme in Biotechnology. It emphasis on the latest advancements in the field. The department has a well-furnished Microbiology lab, Plant Tissue culture lab, Animal cell culture lab and Instrumentation lab. Walk-in cold room, computer lab and Central Instrumentation Facility with well sophisticated instruments including HPLC, HPTLC, RT-PCR, AAS, FT-IR, Gel Documentation system, PCR, ELISA, Fermenter, Lyophilizer, Fluorescence microscope, UV-Visible Spectrophotometer, Animal house facility etc., are available for Teaching and Research activities.Recently,the Department of Biotechnology has recognized by DST-FIST, New Delhi to improve the infrastructure for betterment of teaching & Research.

COURSE DETAILS

- **Mushroom Cultivation (Odd Semester)**
- **Aquaculture Farm Design and Management (Even Semester)**
- **Food Technology (Odd Semester**
- **Plant Tissue culture (Odd Semester**
- **Green Manure Technology(Even Semester)**
- **Bioanalytical Instrumentation (Even Semester)**

Course Duration: 30 hours

Contact

E-mail : biotech.hod@karpagam.ac.in

Phone : 0422-2980011 - 14, 6471113

FAX : 0422-2980022

Website : www.karpagam.edu.in

Value Added Course | Dept. Name: Biotechnology

Semester– Even | **BIOANALYTICAL INSTRUMENTATION** | 2017-2018

Instruction Hours/Week:5/w | **End Semester Exam:** 2 Hours

Total Hours: 30

Course Objective:

- To Learn the fundamental of Bioanalytical Instrumentation
- To understand the theoretical principles of Instrumentation
- To get Hands on training of the Bioanalytical Instrumentation

Course Outcome:

- To get expertise in the Instrumentation based on industrial need
- To get certification and placed in many Central and NGO's Lab

UNIT I:

Basic Instruments use in clinical sciences (Internal utility and external utility), Biocompatible material and Devices, implantable Devices (pacemakers, urine catheters, cardiac stents, cardiac valves, contact lenses, artificial heart), Imaging equipment (Ultra sound imaging equipment, X-rays, PET scans)

UNIT II:

Microscopy: Principles of construction and uses of compound microscope, phase contrast microscope, fluorescence microscope, polarizing microscope, confocal microscopy, transmission and scanning electron microscope.

UNIT III:

General Principles of Protein purification and function analysis techniques: Cell disruption for isolation, general steps of protein purification; determination of protein concentration, Determination of amino acid sequence (Edman degradation method).

UNIT IV:

Chromatographic separation, TLC & application:Introduction of Chromatography, Principles of chromatographic separation, Introduction to chromatographic separation techniques (TLC, HPTLC,HPLC,GC), Principles and Practice of TLC, Trouble shooting in TLC, Application of TLC and Detection of compounds on TLC plates

UNIT V:

Radioisotope Techniques: Detection and measure of radioactivity, Liquid scintillation counting and quenching, overview of autoradiography and Radioimmunoassay (RIA).

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COIMBATORE – 641 021

DEPARTMENT OF COMMERCE

VALUE ADDED COURSE

ON

”BUSINESS PROCESS SERVICES IN INSURANCE“

FOR THE ACADEMIC YEAR 2016-2017

ABOUT THE INSTITUTION

Karpagam Academy of Higher Education is located in a sprawling, green, lush campus extending 26 acres. It has emerged from Karpagam Arts & Science College (Autonomous) a unit under the Karpagam Charity Trust established in 1989 founded by the great philanthropist, industrialist and educationist Dr.R.Vasanthakumar with the vision of instilling originality in the learning minds, imparting quality and value-based education and to engage in Research and Development with the noble objective of creating unique men and women to serve and lead the society.

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The Institution has 4 Faculty - Faculty of Arts, Science and Humanities, Faculty of Engineering, Faculty of Architecture and Faculty of Pharmacy. It has 25 Departments offering a wide range of 84 academic programmes from graduation to doctorate level. The Institution has more than 6,000 students on campus, with a strong contingent of more than 350 teaching faculty, well supported by an almost equal number of administrative and supporting staff. Faculty have got good number of research projects with financial support from various funding agencies like DBT / DST / ICMR and have filed more than 60 patents. As many as 2200 Research papers have been published by the faculty in SCOPUS. The Institution has collaborated with Foreign Universities,

Industries, and Research Bodies for mutual benefit. The Institution ensures that education epitomizes excellence in every sphere and students are prepared to take on the challenges of the day and become the next generation leaders.

DEPARTMENT OF COMMERCE

The Department of Commerce was established during 1996. The Department offers B.Com., B.Com., (CA), B.Com. (PA) and B.Com., (BPS) in the Under-Graduate Stream and M.Com., and M.Com., (CA) in the Post-Graduate Stream. Further, it is also a full-fledged Research Department, offering Fulltime and Part-time M.Phil., and Ph.D. programmes. The Department assists students in acquiring managerial, technical and leadership skills. A team of highly qualified, experienced and committed faculty members works relentlessly to ensure that students excel in their efforts.

OVERVIEW ON BUSINESS PROCESS SERVICES IN INSURANCE

The course covers topics on types of risk, Individual and Group Life Insurance, Annuity, Non-Life Insurance, Health Insurance and Retirement Plans. The course has been offered with prime motto of inculcating principles and insurance practice followed at Insurance Sector in India and Abroad. Students who successfully completed the course may acquire sound knowledge on principles and practices followed at Insurance sector.

MINIMUM PASSING CRITERIA

The students should regularly attend the class without fail. The course will be conducted for a period of 30 Hours. Finally, students have to complete a written examination and should secure minimum 50% of marks for receiving certificate.

COURSE CO-ORDINATOR

Dr.K.JOTHI, Professor and Head, Department of Commerce

KARPAGAM ACADEMY OF HIGHER EDUCATION

DEPARTMENT OF COMMERCE

VALUE ADDED COURSE ON

BUSINESS PROCESS SERVICES IN INSURANCE

Scope

Insurance principles and practice represents the concept of insurance, life insurance, general insurance and it is used to cover risk. This paper provides a basic understanding of the insurance mechanism in US.

Objectives

- To impart theoretical base of US on fundamentals principles of insurance business
- To help the students to gain broader understanding of insurance business in US

Unit I

Concept of Risk: Risk Management - Basic concepts (Hazards, Perils, Assets, etc.) - Fundamentals of Insurance - Characteristics of a valid contract - Insurance contract - Principles & Practices of Insurance Contract - Important terminologies & parties in insurance contract - Types of Insurance (Personal, Commercial, Health, Life, etc. - History of Insurance - Types of Insurance companies - Business units in an Insurance company - Overview of Insurance Life Cycle (Underwriting, Policy Servicing, Claims, etc.) - Reinsurance concept.

Unit II

Life Insurance : Important terminologies in a Life Insurance policy - Parties in a Life Insurance policy - Individual Life Insurance plans - Supplementary Benefits - Policy Provisions - Ownership rights - Life Insurance policy life cycle (New business & Underwriting, Policy servicing, Claims, etc.) - Concept of Annuity - Types of Annuity - Annuity contract provisions - Annuity : USA – Fixed Annuity, Fixed Index Annuity, Variable Annuity - Qualified & Non-Qualified Annuity - Principles of Group Insurance - Group Life Insurance - Group Retirement Plans

Unit III

Non – Life Insurance: concepts : Hazards, Perils, Catastrophe, Property Damage & Business Interruption, Policy exclusions, Indemnity, Deductibles, Retention, Premiums, Limits, Salvage, Subrogation, etc. - Insurance Providers – Co-Insurance, Reinsurance, Captive Insurance - Underwriting process - Policy Servicing process - Claims process – Reinsurance.

Unit IV

Health Insurance: Concept of Healthcare Insurance - How Healthcare Insurance works - Key Challenges of Healthcare Industry - Healthcare Eco System - Healthcare regulations & Standards ; HIPAA – Medicare – Medicaid – Mediclaim - Individual Health Insurance policies - Group Health Insurance policies - Managed Care – Eye Care – Micro Insurance Schemes

Unit V

Retirement Plans: Concept of Retirement Services - Retirement Planning - Asset Allocation & Asset Classes - Life stages of an Investor - Defined Benefit & Defined Contribution - Individual Retirement Arrangement in USA - Third Party Administrator for Retirement Services in USA - Life cycle of Participants in a plan (enrollment, contribution,etc.) - Categories of Pension in UK - DWP & TPR - Annuity & Income Drawdown Plan.

Suggested Readings

Text Book

TCS BPS study material

DEPARTMENT OF MICROBIOLOGY

The Department of Microbiology was established in the year 2002. The department offers B.Sc., M.Sc., M. Phil. and Ph.D. research programs. The department is equipped with well- qualified, dedicated and experienced faculty members and have projects in the disciplines supported by various funding agencies like DBT, DST and UGC. The aim of our department is to promote quality and value based education by motivating the practical skills of students and creating awareness on the recent advances in Microbiology which will make each student as a renovator to seek remedy for the future with a mission andvision.

ALGAL CULTURE TECHNOLOGY AND THIER APPLICATIONS

Objectives:

- To enhance the students' knowledge on the culture aspects and developmentof microalgae culture technology and their applications
- To acquire an overall knowledge on the morphology, functions biological applications on microalgae.
- To make the students knowledgeable on the various techniques involved.
- To give an overview on introduction, important and business ideas and bio-product development of algal product.

APPLICATION OF ALGAE :

- Algae can be used for trapping fertilizers present in farm runoff. After harvesting they can be used as fertilizer.
- Since algae can grow in harsh conditions and do not require many nutrients they are cultivated in places that are not suitable for agricultural purposes therefore, they do not compete for arable land as well as use wastewater, not freshwater.
- Algae is grown in seawater as well as in desert ponds. Algae can also grow in waste water and water containing phosphates, nitrates and other contaminants.
- Since algae is carbon neutral, it can help the environment by taking CO_2 from the air. Algae farms can be located near carbon producing refineries or power plants.
- Algae is a complete protein containing important amino acids that are involved in metabolic processes such as enzyme and energy production.
- It also contains Omega 3 and Omega 6.Chondrus crispus or "carrageen"is a good stabilizer in milk products and reacts with casein, a milk protein that alginates in lotions and can be absorbed through the skin.

VALUE ADDED COURSE -2016

ALGAL CULTURE TECHNOLOGY AND THIER APPLICATIONS

(30 hours)

Offered by Department ofMicrobiology

Enable | Enlighten | Enrich
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Email: **info@karpagam.com**
Web : **www.kahedu.edu.in**

REGISTRATION FORM

FullName :

ClassofStudy :

Subject :

InstitutionalAddress :

Contact No&E-mail :

Title oftheAbstract :

Category :

Registration Fee enclosed:

Free of Coast :

Signature

Date:

Place:

(Photo copies of the form are also accepted)

REGISTRATION

The interested participants can register. Free registration.

Learning outcomes:

- Students understand the importance of microalgae
- Students know the characteristics of microalgae
- Acquire knowledge on microalgae culture production technologies
- Students know the applications of microalgae biotechnology
- Students know the cultivation methods of different microalgae culture technology.

ALGAL CULTURE TECHNOLOGY AND THIER APPLICATIONS

Objectives:

- To enhance the students knowledge on the culture aspects and development of microalgae culture technology and their applications
- To acquire an overall knowledge on the morphology, functions biological applications on microalgae.
- To make the students knowledgeable on the various techniques involved.
- To give an overview on introduction, important and business ideas and bio-product development of algal product

Learning outcomes:

- Students understand the importance of microalgae
- Students know the characteristics of microalgae
- Acquire knowledge on microalgae culture production technologies
- Students know the applications of microalgae biotechnology
- Students know the cultivation methods of different microalgae culture technology

Unit I

Phytoplankton- Classification and their importance-primary production. Phytoplankton-collection, identification, isolation, stages of phytoplankton culture and development of pure culture techniques.

Unit II

Culture maintenance – Mass culture production of phytoplankton-culture media and preparation methods. Biochemical composition of micro algae- Microalgae growth promoting factors.

Unit III

Pharmaceutical applications of Marine Microalgae-Biotic analysis of Microalgae-Algal compounds uses of pharmaceuticals- Antitumor activity of Microalgae-Medicinal uses of microalgae.

Unit IV

Agriculture Applications- Algae fertilizer preparation techniques- Types of algae fertilizer-Effect of growth and yield of Agricultural crops- Biological Application of active metabolite from microalgae against pesticide- Economical importance of algae biofertilizer to agriculture people.

Unit V

Industrial Application of Microalgae- Green food culture preparation and applications- processing of algae food- cosmetic- animal feed- bioremediation- Microalgae energy production- Biodiesel and Biogas.

REFERENCE

1) Indira Priyadarshani and BiswajitRath Department of Biotechnology, North Orissa University, Sriram Chandra Vihar, Takatpur, Baripada-757003.
2) Abd El-Baky, H.H. Moawd, A. El-Behairy, A.N. and ElBaroty, G.S. 2002 Chemoprevention of benzo[a]pyreneinduced carcinogen and lipid peroxidation in mice by lipophilic algae extracts (phycotene). J. Med. Sci. 2: 185– 93.
3) Abe, K. Nishmura, N. and Hirano, M. 1999 Simultaneous production of β-carotene, vitamin E and vitamin C by the aerial microalga Trentepohiaaurea. J. Appl. Phycol. 11: 33–6.
4) Avagyan, A.B. 2008 Microalgae: Big Feed Potential in a Small Package. Feed International. 16-18.
5) H.A. Spoehr and H.A. Milner, "The Chemical Composition of Chlorella: Effect of Environmental Conditions," Plant Physiol. 24: 120 (1949).
6) All India Co-ordinated Project of Algae, Annual Report, New Delhi, 1976 - 77, p. 44; 1977 - 78, p. 72,
7) G. Clement and H. Van Landeghem, "Spirulina-eingnstigesobjekt fur die Massenkultur von Mikroalgen," Ber. Deut Bot. Ges. 83 (1): 559 (1970).
8) W.E. Becker, L.V. Venkataraman and P.M. Khanum, "Digestibility Coefficient and Biological Value of the Proteins of the Alga Scenedesmusacutus Processed by Different Methods," Nutr. Rep. Internat. 14: 457 (1976).
9) G,S, Venkataraman, "Algal Biofertilizers for Rice Cultivation," Today & Tomorrow, p. 75, New Delhi, 1972.
10) G.S. Venkataraman, in W.D.P. Stewart (ed.), Nitrogen Fixation by Free-Living Microorganisms, pp. 207 - 218. Cambridge University Press, Cambridge, 1975.

Department of Computer Science

The Department of Computer Science was establishedintheyear1995.TheDepartmentisforme d to provide best updated courses in computer science andgraduatecomputerscientistswhoarerecognized as bestalloverthe world.

The Department offers B.Sc (CS)in the under-graduate stream and M.Sc (CS) in the Post graduate stream. Further, it is also a full fledged Research Department, offering Full-time and Part-Time M.Phil and Ph.D research programs.

The faculty and students dedicate themselves to take the maximal advantage of modern Computer Science to solve a wide range of complex scientific, technologicalandproblems.Thedepartmentcontinu es to promote innovative research in the core Computer Scienceaswellasmultidisciplinaryapplicationareas .

Value Added Course

The goal of the Value-Added Courses is to provide supplementary learner centric graded skill oriented technical training, with the primary objective of improving the employability skills of students.

The main objectives of the program are:

- To provide students an understanding of the expectations of industry.
- To improve employability skills of students of KAHE.
- To bridge the skill gaps and make students industry ready.
- To provide an opportunity to students to develop inter-disciplinary skills

VALUE ADDED COURSE

PHOTOSHOP

Organized by

DepartmentofComputerScience

Enable | Enlighten | Enrich
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Web:http://www.kahedu.edu.in

About the Course

This course covers the

- Introduction to the basics of photoshop
- All the editing tools
- Designing the posters
- To manipulate, crop, resize, and correct color on digital photos.
- To change the skin tone, create a high resolution copy of the photo, adjusting brightness or removing a blur area in just a few clicks by using adobe Photoshop

Course Co-Ordinator
D.Manjula
Asst. Professor
Dept of CS,CA & IT
Karpagam Academy of Higher Education
Coimbatore -21.

KARPAGAM ACADEMY OF HIGHER EDUCATION
(Deemed to be University)
Established Under Sec.3 of UGC Act. 1956
Department of CS,CA & IT

VALUE –ADDED COURSE

ADOBE PHOTOSHOP

SYLLABUS

Course outcome

1. Students will acquire a basic knowledge by the basic tools found in Adobe Photoshop to create and edit images.
2. Understanding more advanced features of Adobe Photoshop tools.
3. Students can able to create composite images that demonstrate advanced selection and layering techniques.
4. The student will apply painted masks, selection-based masks, gradient masks, and blend modes to create sophisticated image effects.
5. Students can able to create adjustment layers for editable, non-destructive changes to image coloration and exposure.

UNIT - I

Photoshop's Environment & Sizing Images Raster and Vector Graphics · Photoshop Environment Elements · Navigating in Photoshop - Image Size and Resolution , Cropping.

UNIT – II

Selecting Image Areas & Layers The Rectangular and Elliptical Marquee Tools -The Lasso Tools - Saving Selections The Magic Wand Tool - The Magnetic Lasso Tool - Modifying Selections -Floating Versus Fixed Selections -Undoing Previous Steps -Copying Selections - Creating Layers : Transforming Layers - Copying Layers between Images -Arranging Layers - Saving Images in Photoshop Format .

UNIT - III

Blending & Compositing And Image Modes Defringing · Opacity and Blending Modes · Feathering Edges Mode Characteristics · Grayscale and Bitmap Modes · Color Modes .

UNIT - IV

Color and Painting Selecting Colors · Painting Tools · The Clone Stamp Tool Text, Layer Effects, and Filters Type Layers · Layer Effects · Filters · Merging and Flattening Layers .

UNIT - V

Adjusting Images · Brightness/Contrast · Levels Adjustment Layers · Toning Tools · Hue/Saturation

Reference Books

1. Teach yourself adobe photoshop – rose carla
2. Adobe photoshop cs classroom in a book by adobe press

ABOUT THE UNIVERSITY

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Faculty have got good number of research projects with financial support from various funding agencies like DBT / DST / ICMR and have filed more than 60 patents. As many as 2,200 Research papers have been published by our faculty in SCOPUS. The Institution has collaborated with foreign Universities, Industries, and Research bodies for mutual benefit. The Institute ensures that education epitomizes excellence in every sphere and students are prepared to take on the challenges of the day and become the next generation leaders.

ABOUT THE DEPARTMENT

Department of Management was the first Post – Graduate course started by the institution in the year 1996. It offers two year full time MBA programme leading to a Master's degree in Management, M.Phil and Ph.D programmes leading to a Research Degree. The Department has an exclusive facility which is endowed with excellent infrastructure and a dedicated team of faculty members to train the students to meet the growing needs of the society. The Department follows a multidisciplinary approach to provide the necessary knowledge, skill and training to the students. The activities of the department are directed towards the all-round development of the individual keeping in mind the expectations of the recruiters and the challenges of the environment.

ABOUT THE COURSE

Course Objectives

1. To educate students about how exchange-traded funds (ETFs) work, their differences from other types of mutual funds, and the strategic issues for ETFs going forward
2. To expose students to the concepts of Sharpe ratios and mutual fund/exchange-traded fund fees and their role in selecting investments
3. To expose students to the principals of portfolio theory

Course Content

Module 1: Risk and Return Measures

Module 2: Stock Picking

Module3: Portfolio Strategies

Module 4: Background on Trading

Module 5: Foreign Exchange Risk

Key Features of the Course

- 30 Hours Class room training Course
- Contact Hours Certificates
- Online trading Practices
- Practices in managing portfolio
- Examination

Course Coordinators

Mrs. P. Sathya Bama
Assistant Professor
Department of Management
Karpagam Academy of Higher Education
Coimbatore-641021

Dr.A.Dharmaraj
Assistant Professor
Department of Management
Karpagam Academy of Higher Education
Coimbatore-641021

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Department of Management

ACADEMIC YEAR 2016 - 2017

Value Added Course

CAPITAL MARKET TRAINING PROGRAM

Capital Market Training Program
Syllabus

UNITS	CONTENT
UNIT-I	**INTRODUCTION OF CAPITAL MARKET:** Broker - Sub Broker - Investment Consultants, PMS Investor Service - Office setup - Client Enrollment - KYC norms - UCC Upload - NSE/BSE/Depository BO account - Broker Client Relations - Legal Implication - Disputes - Arbitration Mechanism - Auction - Stock Exchange - Clearing Corporation Trading - Clearing and Settlement Mechanism- Margins - Capital adequacy norm - volume - Turn over - Corporate Manger - Broker / Sub- broker terminal management - Risk management - RDM - Internet broking - WAP(For Trading Members)
UNIT-II	**BASIC:** Introduction - Market Segments - Key Indicators - Market Capitalisation - Products and Participants - Reforms in Indian Security Market - Brief discussion about Equity and Derivatives Markets. **REGULATORY:** Govt of India - RBI - SEBI - SAT - Stock Exchange - Testing and Certifications.
UNIT-III	**MARKET INTERMEDIARIES:** Market intermediaries - Registration - Renewal - Testing & Certification-Files - FII'S - FI'S - QIB - NRI - OCB - PIO. Corporate benefits - Bonus - Split - Merger and acquisition - Demerger - Face value - Market lot - Reduction of Share capital - demat.

UNIT-IV	**TECHNICAL AND FUNDAMENTAL ANALYSIS:** Technical analysis - Charting - Fundamental analysis - Trading Patterns - Study of annual report ratios - Investment ideas, Recommendations, Exams point of view .Discussion and Business Franchising. Accounting and Taxation ., Sales practices and Investor protection practices.
UNIT-V	**MUTUAL FUND & NEW TECHONOLGY:** Mutual Fund - A) What is MF , Benefits , Costs, Types of MF, Growth of MF in India, Models to measure performance of MF. Technology in Share Market- B) Technology & its usage, Mode of trading, Mobile application , online apps , Smart phone revolution , Information and Database Management , High Frequency trading.

ORGANIZING COMMITTEE

Chief Patron
Dr.S.SUDALAIMUTHU
Vice Chancellor
Karpagam Academy Of Higher Education

Dr. G. SEKAR
Registrar
Karpagam Academy Of Higher Education

Patron
Dr. R. SUNDARARAJAN
Dean
Faculty of Engineering,
Karpagam Academy Of Higher Education.

Convenor
Dr.P.Shanmughasundaram
Professor & Head
Department of Mechanical Engg.,
Karpagam Academy Of Higher Education

Organizing Secretaries
HOD/Mechanical

PROGRAM SCHEDULE:

DAY	TOPICS
1	Lecture: *Single Phase Induction Motor Constructional details of single-phase induction motor, Performance analysis, Starting methods of single–phase submersible pumps, Motors Rating and selection criteria*
2	*Three Phase Induction Motor, Constructional details, Types of rotors, Principle of operation, Need for starters, Types of starters*
3	*Speed control, Change of voltage, torque, number of poles and slip, Losses and Efficiency, Performance analysis Design aspects of motors for usage in submersible pumps, Motors Rating and selection criteria.*
4	*Pumps: definition and classifications, Sewage, firefighting and Pressure boosting pumps Classification, working principle, work saved by air vessels and performance curves.*

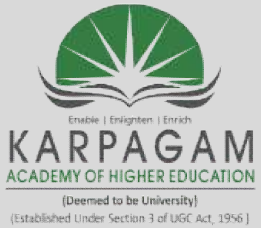
Value Added Programme
on
PUMPS AND MOTORS

Venue: Mechanical Engineering

Organized by

Department of Mechanical Engineering

Faculty of Engineering



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DEPARTMENT OF MECHANICAL ENGINEERING

VALUE ADDED COURSE SYLLABUS

15VACME001 - PUMPS AND MOTORS

Course Objectives:

1. To understand the working principles of pumps
2. To understand the working principles and motors

Course Outcomes

1. Importance of Pumps and motors
2. To Learn how the knowledge of certain processes of Pumps and motors
3. Ability to applications of pumps and motors

10

Module.1 Single Phase Induction MotorConstructional details of single-phase induction motor – Performance analysis – Starting methods of single–phase submersible pumps– Motors Rating and selection criteria.

10

Module.2 Three Phase Induction Motor -Constructional details – Types of rotors – Principle of operation – Need for starters – Types of starters – DOL, Stator resistance and reactance, rotor resistance, autotransformer and star–delta starters – Speed control – Change of voltage, torque, number of poles and slip – Losses and Efficiency – Performance analysis – Design aspects of motors for usage in submersible pumps – Motors Rating and selection criteria.

10

Module.3 Pumps: definition and classifications – Sewage, firefighting and Pressure boosting pumpsClassification, working principle, indicator diagram, work saved by air vessels and performance curves –cavitation in pumps – rotary pumps: working principles of gear and vane pumps

Total Hours **30**

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Dr.P.Shanmughasundaram
Professor & Head
Department of Mechanical Engg.,
Karpagam Academy Of Higher Education

Organizing Secretaries

HOD/Mechanical

PROGRAM SCHEDULE:

DAY	TOPICS
1	Introduction of 2D drafting
2	Principle of drafting, Terminology and Fundamentals.
3	Practice on Drawing basics, Starting a New Drawing .
4	Pull-down menus, Scaling and dimensioning
5	Drawing Lines Using Cartesian Coordinate

Value Added Programme
on

2D Drafting (AutoCAD)

05th to 10th February 2016

Venue: Computer lab – Mechanical Engineering

Organized by

Department of Mechanical Engineering

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VALUE ADDED COURSE SYLLABUS
15VACME002 - 2D DRAFTING (AutoCAD)

Course Objectives:

1. Introduce students to the 2D Drafting Software Requirements.
2. Introduce students to start using the 2D Drafting Modules.
3. Lab Exercises and Competency Tests.

Course Outcomes

1. Ability to learn Two-Dimensional Principle
2. Ability to Learn how the knowledge two-dimensional viewing
3. Gain added insight on working in a team draftingenvironment

10

Module.1 Introduction of 2D drafting-Principle of drafting, Terminology andFundamentals - Practice on Drawing basics - Starting a New Drawing -Pull-down menus - Scaling and dimensioning - Drawing Lines Using Cartesian Coordinate.

10

Module.1 viewing knowledge to understand the engineering drawing in work flow Process in the Industry – Drawing Commands - Layers - Circles and Arcs - Object Snap - Controlling the Drawing - Lines, Ray, Construction Line- Multiline and polylines – Rectangles - Arc, Circle and Ellipse - Polygon, Spline.

11

Module.3 Manual drawing convert into cad drawing- Prepare the layout and print thecad drawing - Drafting views in First angle & Third angle Projection - Representing Standard base 2D drafting - Applying dimensions to various views by using dimension style.

Total Hours 31

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Organizing Secretaries

HOD/Mechanical

PROGRAM SCHEDULE:

DAY	TOPICS
1	Introduction of 2D drafting
2	Principle of drafting, Terminology and Fundamentals.
3	Practice on Drawing basics, Starting a New Drawing .
4	Pull-down menus, Scaling and dimensioning
5	Drawing Lines Using Cartesian Coordinate

Value Added Programme
on

2D Drafting (AutoCAD)

11th to 16nd January 2016

Venue: Computer lab – Mechanical Engineering

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VALUE ADDED COURSE SYLLABUS
15VACME002 - 2D DRAFTING (AutoCAD)

Course Objectives:

1. Introduce students to the 2D Drafting Software Requirements.
2. Introduce students to start using the 2D Drafting Modules.
3. Lab Exercises and Competency Tests.

Course Outcomes

1. Ability to learn Two-Dimensional Principle
2. Ability to Learn how the knowledge two-dimensional viewing
3. Gain added insight on working in a team draftingenvironment

12

Module.1 Introduction of 2D drafting-Principle of drafting, Terminology andFundamentals - Practice on Drawing basics - Starting a New Drawing -Pull-down menus - Scaling and dimensioning - Drawing Lines Using Cartesian Coordinate.

14

Module.1 viewing knowledge to understand the engineering drawing in work flow Process in the Industry – Drawing Commands - Layers - Circles and Arcs - Object Snap - Controlling the Drawing - Lines, Ray, Construction Line- Multiline and polylines – Rectangles - Arc, Circle and Ellipse - Polygon, Spline.

14

Module.3 Manual drawing convert into cad drawing- Prepare the layout and print thecad drawing - Drafting views in First angle & Third angle Projection - Representing Standard base 2D drafting - Applying dimensions to various views by using dimension style.

Total Hours40

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HOD/Mechanical

PROGRAM SCHEDULE:

DAY	TOPICS
1	Course Introduction: Course objectives, general review of GD&T principles
2	Characteristics and Symbols: Review of types of tolerances and the individual geometric characteristic symbols and their tolerance zones, Further explanation on profile tolerances (all round, between points, unequally disposed), Comparison of different characteristics for application purposes.
3	Modifiers: MMC, LMC, RFS and how they affect tolerance zones when applied in feature control frames. Datum modifiers (MMB, LMB and RMB)
4	Composite and Segmented Feature Control Frames: Composite feature control frames compared to segmented feature control frames (position and profile composites) Exercises and Design Applications: Series of Application exercises and design of mating parts exercises

Value Added Programme
on

3D Modeling with GD&T

6th to 9th September 2015

Venue: Computer lab – Mechanical Engineering

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VALUE ADDED COURSE SYLLABUS

15VACME003 - 3D Modeling with GD&T

Course Objectives:

1. To understand the concepts of geometrical dimensioning and Tolerancing
2. To study the physical importance of them in industrial point of view
3. To know the various types of Tolerancing, its measurement and design.

Course Outcomes

1. Ability to learn and apply geometric dimensioning and tolerance standards to communicate designintent
2. Ability to Learn how the knowledge of certain processes can affect part design anddocumentation
3. Gain added insight on working in a team designenvironment

12

Module.1. Introduction to3D modeling packages. Drafting practices - modeling of simple engineering components, sections and extraction of 2D drawings.

14

Module.23D modeling of various machine elements - protrusion, cut, sweep, draft, loft, blend, rib- Assembly – creating assembly from parts – assembly constraints - Conversion of 3D solid model to 2D drawing – different views, sections, isometric view and dimensioning- Introduction to Surface Modeling- Introduction to File Import, Export – DXF, IGES, STL, STEP

14

Module.3 Introduction to Geometric dimensioning and Tolerancing – working of geometric system – Terms and definitions – Common symbols and Terminology – Fundamental Rules (Drawing)– Feature definition – With Size and Without Size – Material Condition (Maximum, Least, Regard of Material Condition)– Limit Tolerancing – Dimension Origin –Limits of Size, Rule 1 or Envelope Principle – Go– No Go Gauges.

Total Hours **40**

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HOD/Mechanical

PROGRAM SCHEDULE:

DAY	TOPICS
1	Lecture: *Fundamentals of Robot, Robot Anatomy, Co–ordinate Systems, Work Envelope, types and classification. Specifications, Pitch, Yaw, Roll, Joint Notations, Speed of Motion, Pay Load, Robot Parts and Their Functions, Need for Robots, Different Applications. Pneumatic Drives*
2	*Pneumatic Drives, Hydraulic Drives, Mechanical Drives, Electrical Drives, D.C. Servo Motors, Stepper Motor, A.C. Servo Motors, Salient Features*
3	*Requirements of a sensor, Principles and Applications of sensors, Position of sensors, Proximity Sensors, Touch Sensors, Camera, Frame Grabber, Sensing and Digitizing Image.*
4	*Robot cell design, simulation software, layouts, Multiple robots and machine interferenceRobot cell planning, Safety Considerations for Robot Operations, Analysis of Robots.*

Value Added Programme
on

Robotics and Automation

Venue: Computer lab – Mechanical Engineering

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VALUE ADDED COURSE SYLLABUS

15VACME004 - Robotics and Automation

Course Objectives:

1. To introduce the basic concepts, parts of robots and types of robots
2. To discuss about the robot cell design and safety of robot.

Course Outcomes

1. Ability to learn and apply Robot anatomy
2. To Learn how the knowledge of certain processes of Robotics
3. Design knowledge of Robotic System

10

Module.1 Fundamentals of Robot - Robot – Definition – Robot Anatomy – Co–ordinate Systems, Work Envelope, types and classification – Specifications – Pitch, Yaw, Roll, Joint Notations, Speed of Motion, Pay Load – Robot Parts and Their Functions – Need for Robots – Different Applications. Pneumatic Drives – Hydraulic Drives – Mechanical Drives – Electrical Drives – D.C. Servo Motors, Stepper Motor, A.C. Servo Motors – Salient Features. End Effectors – Grippers. Requirements of a sensor, Principles and Applications of sensors – Position of sensors, Proximity Sensors, Touch Sensors – Camera, Frame Grabber, Sensing and Digitizing Image.

10

Module.2 Robot Cell Design - Robot cell design – simulation software (Robo Wave). Robot cell layouts – Multiple robots and machine interference – robot cell planning – robot cycle time analysis for assembly, welding and painting shop.

10

Module.3 Safety Considerations - Safety Considerations for Robot Operations, Economic Analysis of Robots – Pay back Method, EUAC Method, Rate of Return Method.

Total Hours **30**

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HOD/Mechanical

PROGRAM SCHEDULE:

TOPICS

Relaxation. If you are like most people, you may feel anxious when presenting. ...

Body Language. ...

Vocal Techniques. ...

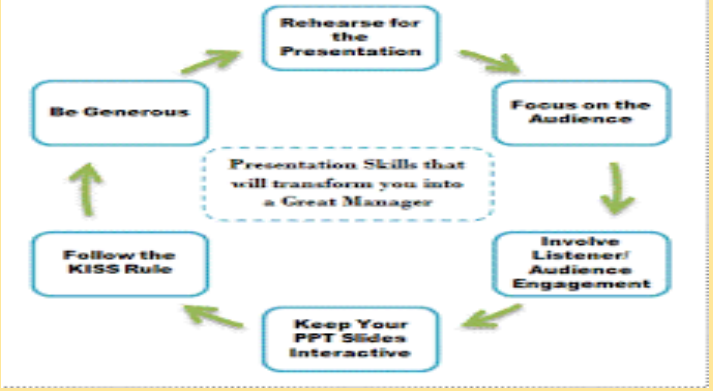
Best Use of Visual Aids. ...

Creating a Dynamic Presentation. ...

Storytelling for Business. ...

Audiences Attention. ...

Presentation to Different Groups.



Value Added Programme
on

Technical Presentation & Seminar

Venue: Smart Room – Mechanical Engineering

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15VACME005 - Technical Presentation and Seminar

COURSE OBJECTIVES

Students will learn appropriate work-related information about the employer and employer site, safety, work readiness skills, career exploration and guidance, and foundational knowledge and skills.

COURSE OUTCOMES

1. The objective of OJT is to provide students with the fundamental.
2. Skills that each student should possess to successfully transition from high school into the workforce.
3. These skills and knowledge can be applied to any industry.
4. Knowledge to be used and further developed throughout one's life.

10

Module.1. Safety - Basic first aid - Basic safety rules -Health and safety hazard training -Proper use of safety equipment and protective clothing – Ergonomics - Proper handling of materials - Maintaining safe and clean work areas - Safe practices with machines and tools - Reporting of illnesses, injuries and unsafe conditions

10

Module.2 Career Readiness -Self-awareness - Career planning - Seeking, applying for, and accepting employment - Employee rights and responsibilities - Employer responsibilities - Communication on the job- Succeeding in the workplace - Meeting employer expectations - Problem solving and critical thinking - Maintaining a safe and healthy workplace - Work ethics and behavior - Interposal relationships - Teamwork and conflict resolution - Personal finances – money management - Personal portfolios - College options and opportunities - Sexual harassment and reporting procedures

10

Module.3 Method of Evaluation - Behavior/Attitude - Class participation - Follow Classroom Procedures/Policies - Unit Activities, Individual & Group - Presentations -Employment Portfolio - Hard copies of Paystubs submitted monthly - Work 40 hours/month minimum - Employer Performance Evaluations -Self-Performance Evaluations

Total Hours **30**

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HOD/Mechanical

PROGRAM SCHEDULE:

TOPICS

Communication. Communication is one of the most important soft skills. ...
Self-Motivation. ...
Leadership. ...
Responsibility. ...
Teamwork. ...
Problem Solving. ...
Decisiveness. ...
Ability to Work Under Pressure and Time Management.

Value Added Programme

on

COMMUNICATION SKILLS DEVELOPMENT

12th to 15th February 2016

Venue: Smart Room – Mechanical Engineering

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VALUE ADDED COURSE SYLLABUS

15VACME006–Communication Skills Development

UNIT I **10**

Listening – Types of listening - Listening to class reading - Video tapes/ audio tapes. **Speaking** – Introduction on self - Introduction on one's friend. **Reading** - Reading for comprehension – Reading different kind of passages like descriptive, narrative, objective, conversational and argumentative. **Writing** – Free writing on any topic – My favorite place, hobbies, dreams, goals, etc- Writing short messages - To fill in different application forms. **Grammar** – Articles- WH questions – Yes/No Question - Subject Verb agreement. **Vocabulary** - Word Formation – Word expansion (Root word) - Prefix and Suffix.

UNIT II **10**

Listening – Listening for specific task – Fill in the gaps. **Speaking** – Phonemes – Syllables – Role play – Conversation Practice. **Reading** – Reading and Comprehension. **Writing** - Autobiographical writing – Biographical writing - Instruction Writing. **Grammar** – Preposition – Infinitive – Gerund – Tenses. **Vocabulary** – Foreign words used in English – British and American usage.

UNIT III **10**

Listening –Listening to different accents, speeches/presentations. **Speaking**- Extempore talk–Just-a-minute talk. **Reading**-Reading strategies–Intensive reading – Text analysis. **Writing** - Creative writing – Writing circulars andnotices–Writing proposal.**Grammar**–Direct and Indirect speech–Conditiona lsentences-Auxiliary verbs. **Vocabulary**–Abbreviations & Acronyms.

Total Hours **30**

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PROGRAM SCHEDULE:

DAY	TOPICS
1	Lecture: Introduction to Geometric dimensioning and Tolerancing, working of geometric system, Terms and definitions, Common symbols and Terminology, Fundamental Rules (Drawing), Feature definition, With Size and Without Size
2	Material Condition (Maximum, Least, Regard of Material Condition), Limit Tolerancing. Dimension Origin, Limits of Size, Rule 1 or Envelope Principle, Go – No Go Gauges.
3	Form and Orientation Tolerance, Design considerations, Flatness and Circularity measurement concepts, Orientation tolerance specification and application design.
4	Position and Runout Tolerance, Profile of surface and line tolerance design and application

Value Added Programme
on

Geometrical Dimension & Tolerancing

Venue: Mechanical Engineering

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VALUE ADDED COURSE SYLLABUS

15VACME007 - Geometrical Dimension and Tolerancing

Course Objectives:

1. To understand the concepts of geometrical dimensioning and Tolerancing
2. To study the physical importance of them in industrial point of view
3. To know the various types of Tolerancing, its measurement and design.

Course Outcomes

1. Ability to learn and apply geometric dimensioning and tolerance standards to communicate designintent
2. Ability to Learn how the knowledge of certain processes can affect part design anddocumentation
3. Gain added insight on working in a team designenvironment

10

Module.1 Introduction to Geometric dimensioning and Tolerancing – working of geometric system – Terms and definitions – Common symbols and Terminology – Fundamental Rules (Drawing)– Feature definition – With Size and Without Size – Material Condition (Maximum, Least, Regard of Material Condition)– Limit Tolerancing – Dimension Origin – Limits of Size, Rule 1 or Envelope Principle – Go– No Go Gauges.

10

Module.2 Form and Orientation Tolerance - Design considerations – Flatness and Circularity measurement concepts – Orientation tolerance specification and application design.

10

Module.3 Position and Runout Tolerance- Profile of surface and line tolerance design and application – Location tolerance, Position, applied and material condition consideration – Coaxial controls and design – Concentricity, Symmetry – Measurement and application – Design considerations – Position, Composite tolerance concept, design and Measurement – Runout, Total Runout tolerances – Measurement and considerations.

Total Hours **30**

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HOD/Mechanical

PROGRAM SCHEDULE:

TOPICS

Types of Listening
Speaking
Reading – Rapid Reading
Writing - Essay writing
Group Discussion
Resume Writing
Recommendation Writing
Short Essays Writing
Grammar- Transformation of sentences

Value Added Programme
on
SOFT SKILLS DEVELOPMENT

05th to 10th February 2016

Venue: Smart Room – Mechanical Engineering

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VALUE ADDED COURSE SYLLABUS

15VACME008–Soft Skills Development

COURSE OBJECTIVE

Today's world is all about relationship, communication and presenting oneself, one's ideas and the company in the most positive and impactful way. This course intends to enable students to achieve excellence in both personal and professional life.

COURSE OUTCOMES

Upon completion of this course, the Students will be able to

1. Perform structural analysis of bars and trusses
2. Perform structural analysis of beams and frames
3. Perform 2d analysis of plate and shells

UNIT I **10**

Listening - Barriers to listening (Physical, Psychological, Linguistic & Cultural). Speaking – Stress, Pause and Intonation. Reading – Rapid Reading – Skimming, Scanning and Surveying. (SQ3R)Writing - Essay writing -Minutes of Meeting - Agenda – Grammar - Active and Passive voice - Purpose Expression. Vocabulary - Same words used as noun and verb - often misspelt and confused words.

UNIT II **10**

Listening – Listening to telephone conversation - Viewing model interviews. Speaking – Group Discussion - Correlation between verbal & non - verbal communication. Reading – Reading Comprehension (short & long text) - Reading job advertisements and profile of a company. Writing – Job Application - Resume Writing - Checklist Preparation. Grammar - Numerical Expressions – Collocations - Vocabulary - Singular and Plural (Nouns)

UNIT III **10**

Listening – Types of Listening- Improving listening comprehension. Speaking - Oral presentation - Vocal communication techniques - voice, quality, volume, pitch etc., Reading - Note Making - Making notes from books/ any forms of writing materials. Writing - Describing process & products - Recommendation Writing – Short Essays Writing- Grammar- Transformation of sentences (Simple, Compound & Complex). Vocabulary - Collection of Technical Vocabulary with their meanings.

Total Hours **30**

KARPAGAM ACADEMY OF HIGHER EDUCATION

(Deemed to be University, Established Under Section 3 of UGC Act 1956)

Eachanari, Pollachi Main Road, Eachanari Post,

Coimbatore-641021, Tamil Nadu, India

VALUE ADDED COURSE

on

"APPLICATIONS OF RENEWABLE ENERGIES"

Duration

November - 2015

Organized by

DEPARTMENT OF PHYSICS

Faculty of Arts, Science and Humanities

KARPAGAM ACADEMY OF HIGHER EDUCATION

Coimbatore-641021.

About the Department

The main objective of the department is to impart knowledge among the students in basic areas of physics, like Atomic and Nuclear Physics, Astronomy and Astrophysics, Polymer science, Thin Films, Solar energy, Spectroscopy etc., to empower them to fulfill the needs of the nation in basic research, through organizations like CSIR, DAE, etc. The department is guiding students for M. Phil. and Ph. D. programmers. The current areas of research interests are Vibrational Spectroscopy, Conducting Polymers, Crystal growth, Thin Films, Solar Energy, Magnetic Materials, Nano Materials, Solid State Ionics, etc.

Objective of the Course

- Understanding basic characteristics of renewable sources of energy and technologies for their utilization.
- To give review on utilization trends of renewable sources of energy.
- To give review on legislative and regulatory rules related to utilization of renewable sources of energy.

Topics to be covered

- Solar Energy
- Wind Energy
- Wind turbines
- Geothermal Energy
- Biomass Energy
- Applications

For Contact:

DEPARTMENT OF PHYSICS

Faculty of Arts, Science and Humanities

KARPAGAM ACADEMY OF HIGHER EDUCATION

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2015-16 [1.3.2] 355.

KARPAGAM ACADEMY OF HIGHER EDUCATION

(Deemed to be University Established Under Section 3 of UGC Act 1956)

Coimbatore – 641 021.

DEPARTMENT OF PHYSICS

VALUE ADDED COURSE

APPLICATIONS OF RENEWABLE ENERGIES

Syllabus

Duration : 30 Hrs.

Course Objective:

During the course the students will develop their skills and knowledge in the following areas:

1. Understanding basic characteristics of renewable sources of energy and technologies for their utilization.
2. To give review on utilization trends of renewable sources of energy.
3. To give review on legislative and regulatory rules related to utilization of renewable sources of energy.

Course Outcome:

Upon successful completion of this course, the student should be able to:

1. Define basic properties of different renewable sources of energy and technologies for their utilisation,
2. Describe main elements of technical systems designed for utilisation of renewable sources of energy,
3. Interpret advantages and disadvantages of different renewable sources of energy
4. Undertake simple analysis of energy potential of renewable sources of energy
5. Explain the correlation between different operational parameters.

UNIT 1

Introduction: Energy. Environment. Generation and consumption of energy. Emissions of carbon dioxide. Renewable sources of energy – review, technologies, and statistics. New technologies.

UNIT 2

Solar Energy: Basic properties of solar energy. Applications of solar energy. Transformation of solar energy. Solar heat collectors. Solar photovoltaic collectors. Application of solar collectors – examples. Solar power plant. Economics of solar collectors. Trends in solar energy utilisation.

UNIT 3

Wind Energy: Basic properties of wind energy. Applications of wind energy. Transformation of wind energy. Wind turbines. Operative characteristics of wind turbines. Wind power plant. Utilisation of wind power – examples. Economics of wind turbines. Trends in wind energy utilisation.

UNIT 4

Geothermal Energy, Heat Pumps, Financial Models, Legislative Framework, Administrative Procedures.

UNIT 5

Biomass Energy: Types of biomass and their basic properties. Transformation of biomass energy. Applications of biomass.Technologies for utilisation of biomass – examples. Economics of biomass. Trends in biomass energy utilisation.

References

1. Sukhatme. S.P., "Solar Energy", Tata McGraw Hill Publishing Company Ltd., New Delhi, 1997.
2. Godfrey Boyle, "Renewable Energy, Power for a Sustainable Future", Oxford University Press, U.K., 1996.
3. Tiwari. G.N., Solar Energy – "Fundamentals Design, Modelling & Applications", Narosa Publishing House, New Delhi, 2002.

4. Freris. L.L., "Wind Energy Conversion Systems", Prentice Hall, UK, 1990.
5. Johnson Gary, L. "Wind Energy Systems", Prentice Hall, New York, 1985
6. David M. Mousdale – "Introduction to Biofuels", CRC Press, Taylor & Francis Group, USA 2010
7. Chetan Singh Solanki, Solar Photovoltaics, "Fundamentals, Technologies and Applications", PHI Learning Private Limited, New Delhi, 2009.

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DEPARTMENT OF PHYSICS

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APPLICATIONS OF RENEWABLE ENERGIES

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KARPAGAM ACADEMY OF HIGHER EDUCATION

FACULTY OF PHARMACY

VALUE ADDED COURSES BROCHURE 2015-16

HERBAL COSMETICS TECHNOLOGY

ABOUT THE INSTITUTION (KAHE)

Karpagam Charity Trust was founded in the year 1989 with the aim of providing excellent educational facilities by imparting practical knowledge and skills to the youth and also catering the needs of the society in general through charitable deeds.

Karpagam Academy of Higher Education was evolved in the year 2008 for the purpose of conferment of Deemed to be University status by Ministry of Human Resource Development, Vide No. F.9.24/2004.U.3 (A) dated 25.08.08.

The University Education, in today's scenario, is witnessing a huge paradigm shift and at Karpagam, we are geared to be a part of that transformation. We ensure that our education epitomizes excellence in every sphere. Steered by the dynamic spirit of our President, **Dr.R.Vasanthakumar**, an eminent industrialist, entrepreneur, culture promoter and philanthropist. **Shri.K.Murugaiah**, Chief Executive Officer, **Shri. V. Krishnakumar**, Chancellor **Dr. S.Sudalaimuthu,** Vice-Chancellor and **Dr.G Sekar**, Registrar, work together to initiate the emergence of excellence. Today, with strength of more than 6000 students and over 750 teaching & non-teaching staff, the Karpagam Academy of Higher Education (KAHE) is setting new benchmarks in the educational sphere.

ABOUT THE FACULTY OF PHARMACY

The department was found in 2015 with B.Pharm degree course with approval of Pharmacy Council of India (PCI), New Delhi with Ref.No. 32 -1199/2015 – PCI/233/0-12 dt.02/09/2015 for intake of 60 admissions, later on it has increased to 120 in 2018 and has since been deeply rooted in classical pharmacy teaching and research. Currently, we have a strong team of academic and research staff committed to excel in the pharmacy education and research missions. Our team has diverse research training background from clinical pharmacy, systems pharmacy, to basic molecular and cellular pharmacy. Many of our team members have medical training or pharmacy training to support clinically-relevant education mission to our professional programs including MBBS, Dentistry, Pharmacy and Nursing. Besides, the department is also well-positioned to train students from the Life Science program in basic and molecular pharmacy and toxicology, and equip them to become pharmaceutical drug industry and clinical drug trial professionals.

ABOUT THE COURSE

Faculty of Pharmacy, Karpagam Academy of Higher Education is organizing a value added course on **"HERBAL COSMETICS TECHNOLOGY"** scheduled from Feb 1st2016 to March17th 2016 at KAHE, Coimbatore. The value added course aim to provide a The word cosmetic was derived from the Greek word "kosm tikos" meaning having the power, arrange, skill in decorating. The origin of cosmetics forms a continuous narrative throughout the history of man as they developed. The man in prehistoric times 3000BC used colours for decoration to attract the animals that he wished to hunt and also the man survived attack from the enemy by colouring his skin and adorned his body for protection to provoke fear in an enemy (whether man or animal). The origin of cosmetics were associated with hunting, fighting, religion and superstition and later associated with medicine

LEVEL OF PARTICIPANTS:

B.Pharm Students

HOW TO APPLY

Those who are willing to join this program, Fill the Registration Form and submit on or before **31.01.2016.**

Course Coordinator,

Mrs.G.PRAVEENA Assistant Professor

REGISTRATION FORM

VALUE ADDED COURSE

ON

"HERBAL COSMETIC TECHNOLOGY"

February 1st, 2016 to March 17th 2016

Name :

Course :

Year / Sem :

Institution Name :

Corresponding Address :

Contact No. :

E Mail :

Date :

Place :

Signature

(Photostat copies of the registration form are also accepted)

VALUE ADDED COURSE

ON

"HERBAL COSMETIC TECHNOLOGY"

February 1st, 2016 to March 17th 2016

Organized by

FACULTY OF PHARMACY

Enable | Enlighten | Enrich

KARPAGAM

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Fax: +91-422-2980022, 2980023.

Email: info@kahedu.edu.in.

SEMESTER: II

HERBAL COSMETICS TECHNOLOGY (Theory)

Instruction Hours: 30

Course Objective:

The topics helps the students to get exposed to processes involved in the manufacturing of herbal cosmetics including the skin and hair care herbal products preparation and their evaluation.

Course Outcome:

Students will learn about the raw materials used in herbal cosmetics and get exposed to various preparations herbal cosmetics.

UNIT I **8hours**

Herbal cosmetics -Introduction, historical background and present status of Herbal cosmetics Processes used in the manufacture of cosmetics-Emulsification, Mixing, compaction, Moulding, Packing. Raw materials used in preparation of herbal cosmetics. Machinery and Equipment for Cosmetics: Cream, Liquid, Powder and emulsion making machinery. Quality, safety and efficacy of Herbal cosmetics

UNIT II **5hours**

Skin care Products: Method of preparation, pharmaceutical and Pharmacological evaluation procedures for various formulations like Creams, Lotions, Lipsticks, face packs. Elaborative study of five formulations under each category with regard to their composition and claims for various herbs used in them.

UNIT III **6hours**

Hair care Products: Method of preparation, pharmaceutical and Pharmacological evaluation procedures for various formulations like hair dyes, creams, Lotions, Jels, oils and Shampoos. Elaborative study of five formulations under each category with regard to their composition and claims for various herbs used in them.

UNIT IV **4hours**

A brief account of following herbals or herb extracts or herbal products of cosmetic importance such as Acacia concinna pods, Aloe Vera, Almond oil, Neem, Citrus aurantium peels, Henna, Turmeric, Liquorice, Olive oil, tea tree oil and wheat germ oil with special emphasis on their source, active principles and cosmetic properties.

UNIT V **7hours**

Quality control: General Principles of Quality control and standardization of cosmetics-Raw material control, Packaging material control, finished product control, Shelf testing.

Natural colorants: Biological Source, coloring principles, chemical nature and usage of the following Annato, Cochineal, Caramel, Henna, Indigo, Madder, Saffron , Turmeric.

Flavors and Perfumes : Sandal wood oil, Orange oil, Lemon oil, Vanilla, Palmarosa, geranium oil

REFERENCES:

1. Cosmetics- Formulation, Manufacturing and Quality control –P.P. Sharma
2. Herbal Cosmetics Hand Book- H. Panda
3. Herbal Cosmetics by P. K Chattopadhyay
4. The Complete Technology Book on Herbal Perfumes and Cosmetics by H.Panda.

JOURNALS

1. International Journal of Applied Pharmaceutics
2. Journal of Pharmacy & Technology
3. Journal of Pharmaceutical Research -Herbal Cosmetics
4. International Journal of Cosmetic Science
5. World Journal of Pharmaceutical Sciences.

WEBSITES

1.www.herbal cosmetics.com

2.www.herbal formulations.com

3.www.herbal cosmacuticals.com