



MAR ATHANASIOS COLLEGE FOR ADVANCED STUDIES, TIRUVALLA [MACFAST]

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Courses with Experiential Learning

Course Code	Course Title	Objective of Offering Experiential Learning
MB010101	Management Concepts & Organizational Behaviour	Case studies and outbound experiential learning techniques are used to impart the concepts of management and organisational behaviour
MB010202	Marketing Management	Using case studies to familiarise with real-life situations where marketing decisions are taken.
MB010204	Operations Management	Students get familiarised operations strategies and its importance with special reference to Airline industry. The experiential learning methods also try to familiarize students to differentiate between manufacturing and non manufacturing sector and also lean concept
MB010206	Management Information Systems & Cyber Security	Case studies were discussed and presented by students. This activity has helped them to know how Information Systems are used by different organisations and its purpose.
MB010301	Big Data & Business Analytics	Practical exposure to Analytical software tools and equip students to do big data analytics using these tools, Case studies were discussed to get familiar with how data analytics could be leveraged across different industries/companies.



MB010401	Strategic Management	Several case studies are discussed and presented by students in this course. These case studies are carefully selected ones to enable students to get experience of managing situations in different product/services/business categories.
	Finance Electives	
	Marketing Electives	In the course, "Integrated Marketing Communication", students are given a task to design an IMC programme for a product/service and present it in detail for evaluation and assessment. This helps students to apply the theoretical concepts of various marketing communications in real-industry-like scenarios.
	HRM Electives	Case studies and Roleplays are used to impart various concepts in Human Resource Management like Training & Counselling.
	Operations Management Electives	Students get familiarised with effective supply chain practices. The course also familiarizes students with concept of procurement, analysis of different logistics network and also preparation of logistics network
	Information Systems Electives	Case studies were discussed to get familiarised with how technology will help organisations to run their business and decision making
MCA 106	C Programming Lab	Enable the students to construct programs that demonstrate effective use of C features .
MCA 107	PC Hardware Lab	The students get familiarised with the knowledge of computer hardware
MCA 206	C++ Lab	students identify and practice the object-oriented programming concepts and techniques.
MCA 207	Data Structures Lab in 'C'	Strengthen the ability of the students to identify and apply the suitable data structure for the given real world problem.
MCA 306	Java Programming Lab	Enable the students to write programs for solving real world problems using java.



MCA 307	DBMS Lab	The objective of this lab course is to understand the practical applicability of database management system concepts.
MCA 406	Linux Lab	Students will be able to understand the basic commands of linux operating system
MCA 407	Open Source Lab Python/PHP	To learn how to design and program Python applications.
MCA 506	Computer Graphics Lab	To acquaint the learner with the basic concepts of Computer Graphics and multimedia
MCA 508	Mini Project	To let the students apply the programming knowledge into a real- world situation/problem
MCA 601	Project	to let the students apply the programming knowledge into a real- world situation/problem
MCA 106P	C Practicals	Equip the students to develop C programs .
MCA 107P	Data Structures through C Practicals	This course enables them to gain knowledge in practical applications of data structures .
MCA 206P	DBMS Practicals	The objective of this lab course is to understand the practical applicability of database management system concepts.
MCA 207P	Web Technologies Practicals	At the end of the course, students should be able to Design and implement dynamic websites with good aesthetic sense of designing
MCA 306P	PHP Programming Practicals	This course will enable the student to create and maintain PHP driven websites. .
MCA 307P	OOPS through Java Practicals	Enable the students to write programs for solving real world problems using java.
MCA 406P	Linux OS & Shell programming Practicals	Students will be able to understand the basic commands of linux operating system.



MCA 407D	Mini Project-Application Development	To let the students apply the programming knowledge into a real- world situation/problem
MCA 601D	Project	To let the students apply the programming knowledge into a real- world situation/problem
MCA 506P	Advanced Java Programming Practicals	Enable the students to write programs for solving real world problems using java.
MCA 507P	Python Programming - Practicals	Students will be able to learn how to design and program Python applications.
	Application Development in C	Equip the students to develop applications in C.
	Personal Website Development	Enable the students to build dynamic websites with good aesthetic sense of designing
	Application Development-PHP	Equip the students to develop applications in PHP.
	Hardware Lab	Familiarize the students with hardware componenets.
	UML Diagram –ATM Transaction(Case Study)	Enable the students to do the visual modeling using UML diagrams.
	UML Diagram –Library Management System(Case Study)	Enable the students to do the visual modeling using UML diagrams.
	Application Development using Java	Equip the students to develop applications in java.
	Application Development-Laravel framework	Equip the students to develop applications in Laravel framework.
BT020105	Lab course I	The students are able to understand: the basic principles of preparation of solutions . The detection, assay and purification of biological compounds. Design experiments and analyze results. Handling of required equipment.



BT020205	LABORATORY COURSE-II	The cultivation, observation and identification of microorganisms. The design of immunological experiments. The detection of compounds of interest in biological samples.
BT020305	LABORATORY COURSE III	Students are trained in: Characterizing waste water, bacteriological analysis of water and food, plant tissue culture techniques and other lab scale bioprocesses
BT020401	Laboratory Course IV	Students are trained in : Isolation of genetic material, purification. Modification of genetic material, generation and introduction of r DNA, analysis of genome
BT020402	Project and Dissertation	For providing the students the real life scenario of research and lab environment, the intricacies in writing scientific reports, thesis
FQ010105	BIOCHEMISTRY & MICROBIOLOGY PRACTICAL-I	To provide a balanced introduction to laboratory techniques and principles those are important in the area of Biochemistry & Microbiology
FQ010206	FOOD ADDITIVES AND PACKAGING TECHNOLOGY	To provide knowledge on various methods used for analysis of additives in food and also to gain practical skill in packaging and to determine the efficiency of packaging
FQ010405	Project Evaluation	For providing the students the real life scenario of research and lab environment, the intricacies in writing scientific reports, thesis
BS020104	Laboratory course I	The objective of the course is to make the students able to do microbiological procedure, plant physiology and biochemistry related experiments
BS020204	Laboratory course-II	The objective of the course is to familiarise the students with medicinal plants resources, plant morphology and families of flowering plants. The course also aims at the making the students do soil analysis and Field trial (agrotechnology) for important medicinal plants



BC010105	LABORATORY COURSE –I	Quantitative analysis and chromatographic techniques
BC010205	LABORATORY COURSE-II	The course aims to provide the student basic practical experience in isolation and identification of microbes, and basic techniques in genetic engineering experiments
BC010304	LABORATORY COURSE III	To provide the students practical knowledge in estimation of macromolecules in biological samples, and basic techniques in enzymology
BC010402	Laboratory course IV	Technical knowledge in clinical biochemistry experiments
BC010403	Project	For providing the students the real life scenario of research and lab environment, the intricacies in writing scientific reports, thesis
BS010105	Laboratory Course I	The course aims to provide the student basic practical experience in analysis and estimation of different macromolecules, solution preparation, in culture, isolation and identification of microbes, in immunology and enzymology and in basic bioinformatics tools.
BS010205	Laboratory Course II	The course is designed to provide the students practical knowledge regarding methods in plant tissue culture and biomass conversion
BS010305	Laboratory course III	The laboratory course aims to provide the student practical experience in the basic techniques in genetic engineering experiments, plant transformation and formulation and practices in countering pathogen/ pest attack
BS010401	Laboratory course IV	To impart practical knowledge in plant tissue culture with emphasis on organ culture and protoplast fusion and in the area of molecular markers.



BS010402	Research Project & Dissertation	For providing the students the real life scenario of research and lab environment, the intricacies in writing scientific reports, thesis
BT010105	Laboratory course I	Identification of Carbohydrates, Proteins and Lipids by Qualitative Analysis
BT010205	LABORATORY COURSE II	Sterilization techniques, Preparation of Nutrient media, Plating techniques, Isolation of Bacteria, Yeast and fungi, Growth of Bacteria, Growth curve by turbidity and colony counting Bacterial staining procedures.
BT010305	LABORATORY COURSE III	Practical knowledge in immunological techniques
BT010401	LABORATORY COURSE IV	Working knowledge, understanding and demonstration of molecular biology techniques
BT010402	Research Project & dissertation	For providing the students the real life scenario of research and lab environment, the intricacies in writing scientific reports, thesis
BS040105	LABORATORY COURSE I	The course aims to provide the student basic practical experience in analysis and estimation of different macromolecules, solution preparation, in culture, isolation and identification of microbes, in immunology and enzymology and in basic bioinformatics tools.
BS040205	Laboratory Course II	The course is designed to impart a basic practical knowledge in nanomaterial synthesis including metal nanoparticles, metal oxides and semiconductors as well as synthesis of polymer and protein nanoparticles



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