



AHMEDABAD UNIVERSITY

AES INSTITUTE OF COMPUTER STUDIES
B++ ACCREDITATION BY NAAC OF UGC

Empowering Knowledge, Creating Skills

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SECOND YEAR MCA SYLLABUS

TRIMESTER - V

YEAR - 2010 – 2011

September, 2010
(For Internal Use Only)



Academic Calendar (2010-2011)

Trimester – IV <ul style="list-style-type: none">- Commencement- Scheduled lectures- Mid Term Examination- TW/Practical/Project Submission- Trimester-end Examination	June 15, 2010 – September 15, 2010 <ul style="list-style-type: none">- June 15, 2010- June 15,2010 – August 31, 2010- July 20-24,2010- September 1-3, 2010- September 6-15, 2010
Trimester – V <ul style="list-style-type: none">- Scheduled lectures- Mid Term Examination- Diwali Break- TW/Practical/Project Submission- Trimester-end Examination- Christmas Break	September 16, 2010 – January 2, 2011 <ul style="list-style-type: none">- September 16,2010 – December 17, 2010- October 19-23,2010- November 1-15, 2010- December 15-16,2010- December 20-29, 2010- December 30,2010- January 2, 2011
Trimester – VI <ul style="list-style-type: none">- Scheduled lectures- Mid Term Examination- TW/Practical/Project Submission- Trimester-end Examination	January 03, 2011 – April 14, 2011 <ul style="list-style-type: none">- January 03, 2011– April 1, 2011- February 15-18,2011- April 2-3, 2011- April 4-14, 2011
Year-end (Supplementary Exams)	April 16-30, 2011
Summer Vacation	May 1, 2011 – June 5, 2011

- Continuous Evaluation in a subject will be decided by the concerned faculty member.
- MCA Trimester-I will commence as per the admissions by GCET committee.



MCA – Course Structure

FIRST YEAR MCA					
Subject Code	Trimester – I	Subject Code	Trimester – II	Subject Code	Trimester - III
MCA111	Structured Programming using C	MCA121	Data Structures	MCA131	Operating Systems
MCA112	Computer Organization and Architecture	MCA122	Database Management Systems –II	MCA132	Object Oriented Concepts and Programming using C++
MCA113	Database Management Systems-I	MCA123	Programming using C and C++	MCA133	Design and Analysis of Algorithms
MCA114	IT Tools	MCA124	Discrete Mathematics for Computer Science	MCA134	Computer Oriented Numerical and Statistical Methods
		MCA125	Communication Skills	MCA 135	Management Systems
SECOND YEAR MCA					
Subject Code	Trimester – IV	Subject Code	Trimester – V	Subject Code	Trimester – VI
MCA241	Core Java	MCA251	Web Development using ASP.NET	MCA261	TCP/IP Protocol Suite
MCA242	Software Engineering	MCA252	Object Oriented Analysis and Design using UML	MCA262	Open Source Technologies
MCA243	Operations Research	MCA253	Managerial Economics	MCA263	Elective-I
MCA244	Enterprise Application Development using .NET	MCA254	Data Communication and Networking	MCA264	Enterprise Application Development (Project)
MCA245	System Software	MCA255	Seminar		
THIRD YEAR MCA					
Subject Code	Trimester – VII	Subject Code	Trimester - VIII	Subject Code	Trimester – IX
MCA371	Software Project Management	MCA381	Enterprise Applications (ERP, SCM, CRM)	MCA391	System Development Project
MCA372	Mobile Computing	MCA382	Distributed Computing and Service Oriented Architecture (SOA)		
MCA373	Advanced Java	MCA383	Elective-III		
MCA374	Elective-II	MCA384	Web based Application Development (Project)		

Elective-I	Elective-II	Elective-III
1. Artificial Intelligence 2. Linux Administration 3. Computer Graphics 4. Search Engine Optimization	1. Compiler Construction 2. Multimedia Systems 3. Software Quality Management, Testing and Standards	1. Network Security 2. GIS 3. E-Security and Cyber laws 4. Data Warehousing and Data Mining 5. IT Infrastructure Management 6. E-Governance

“Enthusiasm is the genius of sincerity and truth accomplishes no victories without it.”



AES INSTITUTE OF COMPUTER STUDIES

Teaching Scheme

Second Year MCA

Trimester – IV

Subject Code	Subject	Contact hrs/week				Credits
		L	T	P	Total	
MCA241	Core Java	3	1	4	8	8
MCA242	Software Engineering	3	1	-	4	4
MCA243	Operations Research	3	1	-	4	4
MCA244	Enterprise Application Development using .NET	3	1	4	8	8
MCA245	System Software	3	1	4	8	8
	Total	15	5	12	32	32

Trimester – V

Subject Code	Subject	Contact hrs/week				Credits
		L	T	P	Total	
MCA251	Web Development using ASP.NET	3	1	4	8	8
MCA252	Object Oriented Analysis and Design using UML	3	1	2	6	6
MCA253	Managerial Economics	3	1	-	4	4
MCA254	Data Communication and Networking	3	1	4	8	8
MCA255	Seminar	3	-	-	3	3
	Total	15	4	10	29	29

Trimester – VI

Subject Code	Subject	Contact hrs/week				Credits
		L	T	P	Total	
MCA261	TCP/IP Protocol Suite	3	1	4	8	8
MCA262	Open Source Technologies	3	1	4	8	8
MCA263	Elective-I	3	1	4	8	8
MCA264	Enterprise Application Development (Project)	-	4	4	8	8
	Total	9	7	16	32	32

“The secret of life is honesty and fair dealing. If you can fake that, you've got it made.”



Examination Scheme

Second Year MCA

Trimester – IV

Sr. No.	Subject	Internal Assessment		External Assessment		Total
		Mid-Term	Assignment	Theory	Practical	
MCA241	Core Java	25	25	50	50	150
MCA242	Software Engineering	25	25	50	-	100
MCA243	Operations Research	25	25	50	-	100
MCA244	Enterprise Application Development using .NET	25	25	50	50	150
MCA245	System Software	25	25	50	50	150
	Total	125	125	250	150	650

Trimester – V

Sr. No.	Subject	Internal Assessment		External Assessment		Total
		Mid-Term	Assignment	Theory	Practical	
MCA251	Web Development using ASP.NET	25	25	50	50	150
MCA252	Object Oriented Analysis and Design using UML	25	25	50	50	150
MCA253	Managerial Economics	25	25	50	-	100
MCA254	Data Communication and Networking	25	25	50	50	150
MCA255	Seminar	50	50	-	-	100
	Total	150	150	200	150	650

Trimester – VI

Sr. No.	Subject	Internal Assessment		External Assessment		Total
		Mid-Term	Assignment	Theory	Practical	
MCA261	TCP/IP Protocol Suite	25	25	50	50	150
MCA262	Open Source Technologies	25	25	50	50	150
MCA263	Elective-I	25	25	50	50	150
MCA264	Enterprise Application Development (Project)		100		100	200
	Total	125	125	150	250	650

“Honesty is the first chapter in the book of wisdom.”



Evaluation Pattern

- The evaluation of students shall be continuous throughout every trimester. Evaluation of students will be on the basis of their performance in the trimester end examination, quality of projects, quality of assignments, participation in case studies and seminar, attendance and class participation.
- A course can be either theory or a combination of theory and practical. Total marks to determine the grade at the end of the trimester will be 100 for a theory only course, 150 for theory with practical, 200 for project work in Trimester VI and VIII and 600 for full time project in Trimester IX.
- The final evaluation in every course will be a combination of internal and external components with different weightage.
- Faculty member will decide the evaluation criteria and weightage for the course at the beginning of each trimester.

Internal Evaluation

The students may be evaluated on the following criteria.

For Mid-Term

- Theory Examination
- Practical Examination with viva
- Unit Test
- Quiz
- Class Participation, Attendance and behavior

For Assignment

- Regularity in Termwork Submission
- Presentation
- Seminars
- Case Study
- Problem Analytical Skills
- Debate
- Group Discussion

External Evaluation

The external evaluation shall be done through Written and Practical Examination at the end of Trimester as per the Examination Scheme.

“Courage is the discovery that you may not win, and trying when you know you can lose.”