1.3.2 (2) Courses that include experimental learning through Project work/field work/internship during last 5 years.

APJ Abdul Kalam Technological University

Sl No:	Program	Course Code	Course Name
1	BTech	**341	Design project
2		**451 and **492	Project Preliminary and Final Project
3			Mandatory credits by the way of student activities through internships
4	MTech	06CE7041 / 06CE7012	Project
5	MCA	20MCA 246/RLMCA 352	Main Project

Mahatma Gandhi University

6	BTech	**010710 /**010807	Project
7	MTech	MCETE 303/ MCETE 401	Master's Thesis

KERALA TECHNOLOGICAL UNIVERSITY

CET Campus, Thiruvananthapuram, Kerala-695016

ORDINANCE

For

Bachelor of Technology B.Tech./B.Tech. (Honours)

B.Tech. Programme.

Knowledge Segments	Credits
Design Project	2
Project	6
Student's Activities	2 [Audit- Pass/ Fail]

a) DESIGN PROJECT

Each student or a group of students has to take up a design project. The project topic could be arrived at in consultation with any faculty member in the department. The Evaluation of the project is to be done in two stages. Two project progress evaluations each carrying 20 marks and a final report evaluation and presentation of the project for 60 marks. The project supervisor and two other faculty members from the same or any other department, nominated by the Head of the Department form the evaluation board.

b) FINAL SEMESTER PROJECT

Students, either individually or in a small batch not exceeding four, have to do a project approved by their faculty supervisor.

The evaluation scheme is given below:-

i) Two progress assessments 20% by the faculty supervisor/s

ii) Final Project Report 30% by the Assessment Board

iii) Project presentation and Viva 50% by the Assessment Board

If the project work is not completed satisfactorily, the student has to put in more work and appear again for assessment on a specified date, not earlier than one month after the first evaluation. If the student fails in the project, a fresh registration for the project for one semester is mandatory.

The project assessment board shall consist of the following members. Chairman: Head of the Department

Members: Project supervisor/s of the student

One faculty member from the Department

(c) Student Activities Points:

To be an engineer capable of competing globally, in addition to technical knowledge and skills, students should develop excellent soft skills, nurture teamwork and leadership qualities, and have an entrepreneurial and trailblazing outlook. To achieve this, in addition to academics, students are to actively engage in co-curricular and extracurricular activities. For such activities, points are allotted. On getting a minimum of 100 activity points the student passes the course and earns 2 credits which do not count for the CGPA but are mandatory for the award of the degree. Listing of these activities and the maximum points that could be earned by engaging in them are given at the end of this document. Additional activities could be included in the list with the approval of the Academic Committee

(d) Curriculum, List of Courses, and Syllabi

i) Every branch of study in the B.Tethe ch., program will have a curriculum, list of courses, syllabi and course plans approved by the Academic Committee of the University.

ii) Courses are categorized as Core Theory (CT), Core Practice (CP), and Electives (EL).

iii) Each course has a course number. Course number includes the offering department or knowledge segment code and a three-digit number. Knowledge segment code is used when a course is offered by any one or more departments with the same course content and syllabus. Details on this are given under Rule, RU-1.

Thiruvanthapuram
26-6-2015

Registrar

Course code	Course Name	L-T-P - Credits	Year of Introduction
**341	DESIGN PROJECT	0-1-2-2	2016

Prerequisite : Nil

Course Objectives

- To understand the engineering aspects of design with reference to simple products
- To foster innovation in design of products, processes or systems
- To develop design that add value to products and solve technical problems

Course Plan

Study : Take minimum three simple products, processes or techniques in the area of specialisation, study, analyse and present them. The analysis shall be focused on functionality, strength, material, manufacture/construction, quality, reliability, aesthetics, ergonomics, safety, maintenance, handling, sustainability, cost etc. whichever are applicable. Each student in the group has to present individually; choosing different products, processes or techniques.

Design: The project team shall identify an innovative product, process or technology and proceed with detailed design. At the end, the team has to document it properly and present and defend it. The design is expected to concentrate on functionality, design for strength is not expected.

Note : The one hour/week allotted for tutorial shall be used for discussions and presentations. The project team (not exceeding four) can be students from different branches, if the design problem is multidisciplinary.

Expected outcome.

The students will be able to

i. Think innovatively on the development of components, products, processes or technologies in the engineering field
ii. Analyse the problem requirements and arrive workable design solutions

Reference:

Michael Luchs, Scott Swan, Abbie Griffin, 2015. Design Thinking. 405 pages, John Wiley & Sons, Inc

Evaluation

First evaluation (Immediately after first internal examination) 20 marks
Second evaluation (Immediately after second internal examination) 20 marks
Final evaluation (Last week of the semester) 60 marks

Note: All the three evaluations are mandatory for course completion and for awarding the final grade.

Course code	Course Name	L-T-P - Credits	Year of Introduction
**451	Seminar and Project Preliminary	0-1-4-2	2016
Prerequisite : Nil			

Course Objectives

- To develop skills in doing literature survey, technical presentation and report preparation.
- To enable project identification and execution of preliminary works on final semester project

Course Plan

Seminar: Each student shall identify a topic of current relevance in his/her branch of engineering, get approval of faculty concerned, collect sufficient literature on the topic, study it thoroughly, prepare own report and present in the class.

Project preliminary:

Identify suitable project relevant to the branch of study. Form project team (not exceeding four students). The students can do the project individually also. Identify a project supervisor. Present the project proposal before the assessment board (excluding the external expert) and get it approved by the board.

The preliminary work to be completed: (1) Literature survey (2) Formulation of objectives (3) Formulation of hypothesis/design/methodology (4) Formulation of work plan (5) Seeking funds (6) Preparation of preliminary report

Note: The same project should be continued in the eighth semester by the same project team.

Expected outcome.

The students will be able to

i. Analyse a current topic of professional interest and present it before an audience
ii. Identify an engineering problem, analyse it and propose a work plan to solve it.

Evaluation

Seminar : **50 marks**

(Distribution of marks for the seminar is as follows: i. Presentation : 40% ii. Ability to answer questions : 30% & iii. Report : 30%)

Project preliminary : **50 marks**(Progress evaluation by the supervisor : 40% and progress evaluation by the assessment board excluding external expert : 60%. Two progress evaluations, mid semester and end semester, are mandatory.)

Note: All evaluations are mandatory for course completion and for awarding the final grade.

Course code	Course Name	Credits	Year of Introduction
**492	PROJECT	6	2016

Prerequisite : Nil

Course Objectives

- To apply engineering knowledge in practical problem solving
- To foster innovation in design of products, processes or systems
- To develop creative thinking in finding viable solutions to engineering problems

Course Plan

In depth study of the topic assigned in the light of the preliminary report prepared in the seventh semester
Review and finalization of the approach to the problem relating to the assigned topic
Preparing a detailed action plan for conducting the investigation, including team work
Detailed Analysis/Modelling/Simulation/Design/Problem Solving/Experiment as needed
Final development of product/process, testing, results, conclusions and future directions
Preparing a paper for Conference presentation/Publication in Journals, if possible
Preparing a report in the standard format for being evaluated by the dept. assessment board
Final project presentation and viva voce by the assessment board including external expert

Expected outcome

The students will be able to

iii. Think innovatively on the development of components, products, processes or technologies in the engineering field
iv. Apply knowledge gained in solving real life engineering problems

Evaluation

Maximum Marks : 100

(i) Two progress assessments	20% by the faculty supervisor(s)
(ii) Final project report	30% by the assessment board
(iii) Project presentation and viva voce	50% by the assessment board

Note: All the three evaluations are mandatory for course completion and for awarding the final grade.

RULES FOR ASSIGNING ACTIVITY POINTS

Encouraging the extra and co curricular activities of B.Tech & B.Arch students

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

KTU Academics

Professional Self Initiatives	8	Tech Fest, Tech Quiz	10	20	30	40	50	a	50	
	9	MOOC with final assessment certificate	50					a	50	
	10	Competitions conducted by Professional Societies - (IEEE, IET, ASME, SAE, NASA etc.)	10	15	20	30	40	a	40	
	11	Attending Full time Conference/ Seminars / Exhibitions/ Workshop/ STTP conducted at IITs /NITs	20					a	40	
	12	Paper presentation/ publication at IITs /NITs	30					a	40	
		Additional 10 points for certificate of recognition.								
	13	Poster Presentation at IITs /NITs	20					a	30	
		Additional 10 points for certificate of recognition.								
	14	Industrial Training/ Internship (atleast for 5 full days)	20					a/b	20	
	15	Industrial/ Exhibition visits	5					a/b/d	10	

KERALA TECHNOLOGICAL UNIVERSITY

ERNAKULAM- I CLUSTER

SCHEME AND SYLLABI

FOR

M. Tech. DEGREE PROGRAMME

IN

COMPUTER AIDED STRUCTURAL ENGINEERING

(2015 ADMISSION ONWARDS)

Course No.	Course Title	L-T-P-Credits	Year of Introduction
06CE7041	Project (Phase 1)	0-0-8-6	2015
Pre-requisites	Nil		

Course Objectives

Syllabus

Normally students are expected to do the project within the college. However they are permitted to do the project in an industry or in a government research institute under a qualified supervisor from that organization. Progress of the project work is to be evaluated at the end of the third semester. For this a committee headed by the head of the department with two other faculty members in the area of the project, of which one shall be the project supervisor. If the project is done outside the college, (provision is available for them only in the fourth semester), the external supervisor associated with the student will also be a member of the committee. Final evaluation of the project will be taken up only on completion of the project in the fourth semester. This shall be done by a committee constituted for the purpose by the principal of the college. The concerned head of the department shall be the chairman of this committee. It shall have two senior faculty members from the same department, project supervisor and the external supervisor, if any, of the student and an external expert either from an academic/R&D organization or from Industry as members. Final project grading shall take into account the progress evaluation done in the third semester and the project evaluation in the fourth semester. If the quantum of work done by the candidate is found to be unsatisfactory, the committee may extend the duration of the project up to one more semester, giving reasons for this in writing to the student. Normally further extension will not be granted and there shall be no provision to register again for the project.

M.Tech projects should be socially relevant and research oriented ones. Each student is expected to do an individual project. The project work is carried out in two phases – Phase I in III semester and Phase II in IV semester.Project work is to be evaluated both in the third and the fourth semesters. Based on these evaluations the grade is finalised in the fourth semester.

Project evaluation weights shall be as follows:-

For convenience the marks are allotted as follows.

Total marks for the Project: 150

In the 3rd Semester:- Marks:50

Project Progress evaluation:

Progress evaluation by the Project Supervisor : 20 Marks

Presentation and evaluation by the committee : 30 Marks

Course Outcome

On completion of the project (Phase 1) the student is expected to conduct preliminary work and review previous literatures on a relevant and research oriented topic to be continued in the following semester.

Course No.	Course Title	L-T-P-Credits	Year of Introduction
06CE7012	Project (Phase 2)	0-0-21-12	2015
Pre-requisites			

Course Objectives

Syllabus

Phase II of the project work shall be in continuation of Phase I only. At the completion of a project the student will submit a project report, which will be evaluated (end semester assessment) by duly appointed examiner(s). This evaluation will be based on the project report and a viva voce examination on the project. The method of assessment for Phase II is as given:

In the 4th Semester:- Marks:100

Project evaluation by the supervisor/s : 30 Marks

Evaluation by the External expert : 30 Marks

Presentation & evaluation by the Committee : 40 Marks

Course Outcome

At the successful completion of a project, the student will be well versed in the work and should submit a report of the work done.

Mahatma Gandhi University

Course Regulations

of

B.Tech. Degree Courses (Revised)

(With effect from 2010 admissions)

1. Project and Viva Voce

For Seminar, Project, and Viva Voce (in 8th semester), the minimum for a pass shall be 50% of the total marks assigned to the respective examination.

If a candidate has passed all examinations of B.Tech. course (at the time of publication of results of eighth semester) except Viva-Voce in the eighth semester, a re- examination for the Viva-Voce should be conducted within one month after the publication of results. Each candidate should apply for this 'Save a Semester examination' within one week after the publication of eighth semester results.

2.Additional Requirements for the degree

In addition to the requirement prescribed for the award of B.Tech. degree, each student must complete compulsory social service for a total duration of 15 days during 3rd to 7th semesters of the course. A record is to be kept showing the details of social service activities undertaken and it should be approved by the Staff Advisor. Head of Institution should verify this compulsory requirement before permitting the student to register for the eighth semester.

Students are expected to undertake industrial training(s) of total 10 days minimum duration or industrial visits (to minimum 2 industries) for studying about the industries of importance to the branch concerned during 4th to 7th semester. Students may also undertake an educational tour, the tour period shall be considered as part of the working periods of a semester. The tour maybe conducted during the vacation/holidays taking not more than 3 working days, combined with the vacation/holidays if required, between 5th and 8th semesters for visiting industries (at least two) of importance to the branch concerned. Faculty members shall accompany the students for the industrial visits/educational tour. Each student shall submit detailed bound report(s) of the training/visit/tour to the Head of Department within two weeks after the programme. These bound report(s), signed by the staff advisor or faculty in charge of tour/training/visit and by the head of department, shall also be brought during the final Viva-Voce.

AU 010 710 Project Work

Teaching scheme **credits: 1**

1 hour practical per week

Project work, in general, means design and development of a system with clearly specified objectives. The project is intended to be a challenge to intellectual and innovative abilities and to give students the opportunity to synthesize and apply the knowledge and analytical skills learned in the different disciplines.

The project shall be a prototype; backed by analysis and simulation etc. No project can be deemed to be complete without having an assessment of the extent to which the objectives are met. This is to be done through proper test and evaluation, in the case of developmental work, or through proper reviews in the case of experimental investigations.

- The project work has to be started in the seventh semester and to be continued on to eighth semester.
- Project work is to be done by student groups. Maximum of four students only are permitted in any one group.
- Projects are expected to be proposed by the students. They may also be proposed by faculty member (Guide) or jointly by student and faculty member.
- Students are expected to finalise project themes/titles with the assistance of an identified faculty member as project guide during the first week of the seventh semester.

The progress from concept to final implementation and testing, through problem definition and the selection of alternative solutions is monitored. Students build self confidence, demonstrate independence, and develop professionalism by successfully completing the project.

Each student shall maintain a project work book. At the beginning of the project, students are required to submit a project plan in the project book. The plan should not exceed 600 words but should cover the following matters.

- ❖ Relevance of the project proposed
- ❖ Literature survey
- ❖ Objectives
- ❖ Statement of how the objectives are to be tackled

CE 010 710 Project Work

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1 hour practical per week

Project work, in general, means design and development of a system with clearly specified objectives. The project is intended to be a challenge to intellectual and innovative abilities and to give students the opportunity to synthesize and apply the knowledge and analytical skills learned in the different disciplines.

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- ❖ Literature survey
- ❖ Objectives
- ❖ Statement of how the objectives are to be tackled

CS 010 710 Project Work

Teaching scheme **credits: 1**

1 hour practical per week

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- ❖ Relevance of the project proposed
- ❖ Literature survey
- ❖ Objectives
- ❖ Statement of how the objectives are to be tackled

EE 010 710 Project Work

Teaching scheme **credits: 1**

1 hour practical per week

Project work, in general, means design and development of a system with clearly specified objectives. The project is intended to be a challenge to intellectual and innovative abilities and to give students the opportunity to synthesize and apply the knowledge and analytical skills learned in the different disciplines.

The project shall be a prototype; backed by analysis and simulation etc. No project can be deemed to be complete without having an assessment of the extent to which the objectives are met. This is to be done through proper test and evaluation, in the case of developmental work, or through proper reviews in the case of experimental investigations.

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- ❖ Literature survey
- ❖ Objectives
- ❖ Statement of how the objectives are to be tackled

ME 010 710 Project Work

Teaching scheme **credits: 1**

1 hour practical per week

Project work, in general, means design and development of a system with clearly specified objectives. The project is intended to be a challenge to intellectual and innovative abilities and to give students the opportunity to synthesize and apply the knowledge and analytical skills learned in the different disciplines.

The project shall be a prototype; backed by analysis and simulation etc. No project can be deemed to be complete without having an assessment of the extent to which the objectives are met. This is to be done through proper test and evaluation, in the case of developmental work, or through proper reviews in the case of experimental investigations.

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- ❖ Literature survey
- ❖ Objectives
- ❖ Statement of how the objectives are to be tackled

AU010 807 Project Work

Teaching scheme **credits: 4**

6 hours practical per week

The progress in the project work is to be presented by the middle of eighth semester before the evaluation committee. By this time, the students will be in a position to publish a paper in international/ national journals/conferences. The EC can accept, accept with modification, and request a resubmission.

The progress of project work is found unsatisfactory by the EC during the middle of the eighth semester presentation, such students has to present again to the EC at the end of the semester and if it is also found unsatisfactory an extension of the project work can be given to the students.

Project report: To be prepared in proper format decided by the concerned department. The report shall record all aspects of the work, highlighting all the problems faced and the approach/method employed to solve such problems. Members of a project group shall prepare and submit **separate** reports. Report of each member shall give details of the work carried out by him/her, and only summarise other members' work.

The student's sessional marks for project will be out of 100, in which 60 marks will be based on day to day performance assessed by the guide. Balance 40 marks will be awarded based on the presentation of the project by the students before an evaluation committee.

For Project, the minimum for a pass shall be 50% of the total marks assigned to the Project work.

CE010 807 Project Work

Teaching scheme **credits: 4**

6 hours practical per week

The progress in the project work is to be presented by the middle of eighth semester before the evaluation committee. By this time, the students will be in a position to publish a paper in international/ national journals/conferences. The EC can accept, accept with modification, and request a resubmission.

The progress of project work is found unsatisfactory by the EC during the middle of the eighth semester presentation, such students has to present again to the EC at the end of the semester and if it is also found unsatisfactory an extension of the project work can be given to the students.

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The student's sessional marks for project will be out of 100, in which 60 marks will be based on day to day performance assessed by the guide. Balance 40 marks will be awarded based on the presentation of the project by the students before an evaluation committee.

For Project, the minimum for a pass shall be 50% of the total marks assigned to the Project work.

CS010 807 Project Work

Teaching scheme **credits: 4**

6 hours practical per week

The progress in the project work is to be presented by the middle of eighth semester before the evaluation committee. By this time, the students will be in a position to publish a paper in international/ national journals/conferences. The EC can accept, accept with modification, and request a resubmission.

The progress of project work is found unsatisfactory by the EC during the middle of the eighth semester presentation, such students has to present again to the EC at the end of the semester and if it is also found unsatisfactory an extension of the project work can be given to the students.

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The student's sessional marks for project will be out of 100, in which 60 marks will be based on day to day performance assessed by the guide. Balance 40 marks will be awarded based on the presentation of the project by the students before an evaluation committee.

For Project, the minimum for a pass shall be 50% of the total marks assigned to the Project work.

EC010 807 Project Work

Teaching scheme **credits: 4**

6 hours practical per week

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The student's sessional marks for project will be out of 100, in which 60 marks will be based on day to day performance assessed by the guide. Balance 40 marks will be awarded based on the presentation of the project by the students before an evaluation committee.

For Project, the minimum for a pass shall be 50% of the total marks assigned to the Project work.

EE010 807 Project Work

Teaching scheme **credits: 4**

6 hours practical per week

The progress in the project work is to be presented by the middle of eighth semester before the evaluation committee. By this time, the students will be in a position to publish a paper in international/ national journals/conferences. The EC can accept, accept with modification, and request a resubmission.

The progress of project work is found unsatisfactory by the EC during the middle of the eighth semester presentation, such students has to present again to the EC at the end of the semester and if it is also found unsatisfactory an extension of the project work can be given to the students.

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The student's sessional marks for project will be out of 100, in which 60 marks will be based on day to day performance assessed by the guide. Balance 40 marks will be awarded based on the presentation of the project by the students before an evaluation committee.

For Project, the minimum for a pass shall be 50% of the total marks assigned to the Project work.

ME010 807 Project Work

Teaching scheme **credits: 4**

6 hours practical per week

The progress in the project work is to be presented by the middle of eighth semester before the evaluation committee. By this time, the students will be in a position to publish a paper in international/ national journals/conferences. The EC can accept, accept with modification, and request a resubmission.

The progress of project work is found unsatisfactory by the EC during the middle of the eighth semester presentation, such students has to present again to the EC at the end of the semester and if it is also found unsatisfactory an extension of the project work can be given to the students.

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For Project, the minimum for a pass shall be 50% of the total marks assigned to the Project work.

Mahatma Gandhi University

Course Regulations

of

B.Tech. Degree Courses (Revised)

(With effect from 2010 admissions)

1. Electives

All students shall choose four elective subjects, one in the sixth, one in the seventh and two in eighth semesters from a set of elective subjects prescribed in the syllabus and offered by the institution. There should be at least 25% students of the class for an elective subject to be offered. However, any student having a CGPA of not less than 7.5 shall be permitted to select an elective of his/her choice and register under a faculty subject to the permission from the faculty and Head of Department. The student will have to study this subject on his own (self-study mode) or the classes of this subject shall be taken during off-hours.

A student can opt for interdisciplinary electives, termed as global electives in the syllabus, maximum one during 8^{th} semesters subject to the permission from both Heads of Departments and the faculty handling the elective subject. Minimum number of students for a global elective shall be 15 and maximum 60.

New electives may be introduced according to the needs of emerging fields in technology. The name of the elective and its syllabus should be approved by the university before the subject is offered as an elective.

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
MASTER OF COMPUTER APPLICATIONS
CURRICULUM - SEMESTERS I TO IV
YEAR: 2020

SEMESTER I									
Course No	Course	Hours/week			IA Marks	ESE Marks	Total	Credits	Exam Slot
		L	T	P					
20MCA101	Mathematical Foundations for Computing	3	1	-	40	60	100	4	A
20MCA103	Digital Fundamentals & Computer Architecture	3	1	-	40	60	100	4	B
20MCA105	Advanced Data Structures	3	1	-	40	60	100	4	C
20MCA107	Advanced Software Engineering	3	1	-	40	60	100	4	D
20MCA131	Programming Lab	0	1	3	50	50	100	2	R
20MCA133	Web Programming Lab	0	1	3	50	50	100	2	S
20MCA135	Data Structures Lab	0	1	3	50	50	100	2	T
20MCANC1	Entrepreneurship & Innovations in Technology	-	-	1	-	-	-	0	
	Minimum one MOOC Course is to be completed	-	-	-	-	-	-	0	
		12	7	10	310	390	700	22	

SEMESTER II									
Course No	Course	Hours/week			IA Marks	ESE Marks	Total	Credits	Exam Slot
		L	T	P					
20MCA102	Advanced Database Management Systems	3	1	-	40	60	100	4	A
20MCA104	Advanced Computer Networks	3	1	-	40	60	100	4	B
20MCA1--	Elective 1	3	1	-	40	60	100	4	C
20MCA1--	Elective 2	3	1	-	40	60	100	4	D
20MCA132	Object Oriented Programming Lab	0	1	3	50	50	100	2	R
20MCA134	Advanced DBMS Lab	0	1	3	50	50	100	2	S
20MCA136	Networking & System Administration Lab	0	1	3	50	50	100	2	T
20MCANC2	Industrial Readiness Training	-	-	1	-	-	-	0	
	Second MOOC Course is to be completed	-	-	-	-	-	-	0	
		12	7	10	310	390	700	22	

SEMESTER III									
Course No	Course	Hours/week			IA Marks	ESE Marks	Total	Credits	Exam Slot
		L	T	P					
20MCA201	Data Science & Machine Learning	3	1	-	40	60	100	4	A
20MCA203	Design & Analysis of Algorithms	3	1	-	40	60	100	4	B
20MCA2--	Elective 3	3	1	-	40	60	100	4	C
20MCA2--	Elective 4	3	1	-	40	60	100	4	D
20MCA241	Data Science Lab	0	1	3	50	50	100	2	R
20MCA243	Mobile Application Development Lab	0	1	3	50	50	100	2	S
20MCA245	Mini Project	0		4	100	-	100	2	T
20MCANC3	Domain Expertise Workshops	-	-	1	-	-	-	0	
		12	6	11	360	340	700	22	

SEMESTER IV									
Course No	Course	Hours/week			IA Marks	ESE Marks	Total	Credits	Exam Slot
		L	T	P					
20MCA242	Comprehensive Viva	-	-	-	-	100	100	6	
20MCA244	Seminar	-	-	2	50	-	50	2	
20MCA246	Main Project	-	-	27	70	30	100	12	
				29	120	130	250	20	
							2350	86	

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

MASTER OF COMPUTER APPLICATIONS (REGULAR)

CURRICULUM – SEMESTERS I to VI

Year : 2016

No. of credits : 123

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SEMESTER 5

	Master of Computer Applications (Regular)	Hours / week			IA marks	ESE Marks	Total	Credits	Exam slot
Course No	Course	L	T	P					
RLMCA301	Web Data Mining	3	1	-	40	60	100	4	A
RLMCA303	E-Commerce	3	-	-	40	60	100	3	B
RLMCA305	Cryptography and Cyber Security	3	1	-	40	60	100	4	C
RLMCA3- -	Elective II	3	1	-	40	60	100	4	D
RLMCA3- -	Elective III	3	1	-	40	60	100	4	E
RLMCA341	Seminar	-		2	50	-	50	2	S
RLMCA351	Mini Project	-		8	150	-	150	2	T
	TOTAL	**15**	**4**	**10**	**400**	**300**	**700**	**23**	

ELECTIVE-II		ELECTIVE-III	
RLMCA361	Compiler Construction	RLMCA381	Cloud Computing
RLMCA363	IPR and Cyber Law	RLMCA383	Human Computer Interaction
RLMCA365	Cyber Forensics	RLMCA385	Bioinformatics
RLMCA367	Internet of Things	RLMCA387	Computer Graphics
RLMCA369	Python Programming	RLMCA389	Parallel and Distributed Computing
RLMCA371	Social Network Analysis	RLMCA391	Artificial Intelligence

SEMESTER 6

	Master of Computer Applications (Regular)	Hours / week			IA marks	ESE Marks	Total	Credits	
Course No	Course	L	T	P					
RLIMCA352	Project and Viva Voce			30	70	30	100	12	
		Cumulative Total					**3600**	**123**	