

# **R.V.R. & J. C. COLLEGE OF ENGINEERING**

(Autonomous)

(Accredited by NAAC with 'A' Grade :: Affiliated to Acharya Nagarjuna University)  
Chandramoulipuram :: Chowdavaram :: GUNTUR – 522019

## Three Year P.G. Degree Program Master of Computer Applications

### Regulations (R-17)

[ *w.e.f.* 2017-2018 ]



Department of Computer Applications

# **Department of Computer Applications**

## **Department Vision**

To groom students achieve excellence in offering innovative solutions in tune with the needs of the society.

## **Department Mission**

To help students excel in building globally competent socio-technical systems.

## **About Department**

The Department of Computer Applications started functioning from 1995 and is offering Masters Degree in Computer Applications.

In the culturally and intellectually rich environment of R.V.R. & J.C. College of Engineering, the department educates thinkers who do and doers, who think broadly and strategically about problem solving methods and process that manipulate, transform information through computers. By providing a rigorous formal education while allowing a maximum intellectual flexibility and diversity, the department equips its students with know – how for technical innovation and vision for leadership. The students of M.C.A are nurtured to become world-class software professionals as Project Managers, System Analysts or Team leaders in Industry or become Entrepreneurs in their own innovative way.

The department has modern laboratories to serve the teaching and research needs of the students and faculty of the department. Substantial computing resources that include high end servers with 135 MNC branded systems and all the necessary licensed software, giving students a diversity of experience in Operating Systems are exclusively provided for the department. All systems are fully networked within the department and to the institute's campus using High End CISCO Switches and Fiber Optic Cables. Dedicated leased line internet connectivity is provided by B.S.N.L. The department provides mail accounts to all students and staff of the college in Google Apps mail service. The laboratories have been upgraded and modernized from time to time. These facilities are maintained by the department's staff of programmers and technicians.

With a right blend of young and experienced staff, the department demonstrates high level of entrepreneurial spirit and student centered approach. The faculty is dedicated to providing students with a challenging and rewarding course of study in a caring & sharing environment.

The skills associated within teams are learnt and assessed in individual projects. Post graduate research is strongly encouraged through seminars, projects, theses and through the different guest lectures given

by the experienced people from industry and academic.

The department encourages and nurtures the innate talents of students through the computer and information science Association(CISA) by organizing several activities like student meets, seminars, guest lectures by the industry and academic experts. CISA organizes a National Level Technical Student Meet CIS'SOIREE every year

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**REGULATIONS (R-17)**

**For 3-YEAR**

**MASTER OF COMPUTER APPLICATIONS (M.C.A.) DEGREE PROGRAM**

(w.e.f. the batch of students admitted into First Year M.C.A from the academic year 2017-18)

**1. ADMISSION**

The eligibility criteria for admission into Master of Computer Applications (M.C.A.) programme is as per the guidelines of Andhra Pradesh State Council of Higher Education (APSCHE), Amaravathi.

**1.1 Category – A Seats:**

The seats under this category shall be filled by the Convener, ICET Admissions.

**1.2 Category – B Seats:**

The seats under this category shall be filled by the College as per the guidelines of APSCHE

**2. DURATION OF THE COURSE AND MEDIUM OF INSTRUCTION**

**2.1** The duration of the course is three academic years consisting of two semesters in each academic year.

**2.2** The medium of instruction and examination is English.

**3. MINIMUM INSTRUCTION DAYS**

Each semester shall consist of a minimum number of 90 days of instruction excluding the days allotted for tests, examinations and preparation holidays.

**4. REGISTERING THE SUBJECTS OFFERED**

**4.1** A student has to register and secure 142 credits out of which 40 credits from laboratory subjects including project work.

**4.2** The structure of the M.C.A Programme comprises of six semesters of course work consisting of 21 Core subjects + 4 Elective subjects + 14 Labs + One Mini Project Work + One MOOCs followed by one semester of Major Project work. At the end of III Year II Semester the student should submit Project report.

#### 4.3 MOOCs (Massive Open Online Courses) Requirements.

- Enrolment of MOOCs Course will be initiated from the date of commencement of class work for II Year I Semester.
- MOOCs course completion certificate must be submitted on or before the last instruction day of III Year I Semester, otherwise his/her Semester End Examination results will not be declared.
- Two credits will be secured from MOOCs.
- List of MOOCs courses will be announced by the Board of Studies at the time of commencement of class work for II Year I Semester.

4.4 Project work shall be carried out under the Supervision of a Faculty Member in the department. A candidate may, however, in certain cases, be permitted to work on his Project/Dissertation at the place of employment, any recognized Institution/R&D Organization/Industry with the approval of the Head of The Department and Head of the Organization. In such cases, the Project Work shall be jointly supervised by a member of the faculty and a person from the Organization in the concerned area of specialization.

### **5. ATTENDANCE**

5.1 Students shall put in attendance of not less than 75% in aggregate in the prescribed subjects in each semester.

5.2 Condonation of shortage in attendance may be recommended on genuine medical grounds, up to a maximum of 10% provided the student puts in at least 65% attendance, provided the Principal is satisfied with the genuineness of the reasons and the conduct of the candidate.

5.3 Students who have put in less than 65% of attendance are not eligible for grant of condonation on shortage of attendance and also they are not eligible to appear in Semester End examination of that semester. Such students shall have to repeat the regular course of study of the corresponding semester in subsequent academic year in order to become eligible to appear for the examination. The seats of candidates admitted for repetition of the semester be treated as extra seats over and above the sanctioned strength.

## 6. LABORATORY

In any semester, a minimum 80% of total experiments / exercises specified in the syllabus for laboratory subject shall be completed by the candidate and get the record certified by the concerned Head of the Department, to be eligible to appear for the Semester End Examination in that laboratory subject.

## 7. SCHEME OF INSTRUCTION AND EVALUATION

- 7.1 Instruction in various subjects shall be provided by the college as per the Scheme of instruction and syllabi prescribed.
- 7.2 At the end of each semester, Semester End Examinations shall be held as prescribed in the scheme of examination.
- 7.3 The distribution of marks between sessional work (based on internal assessment) and Semester End Examination is as follows:

Nature of the subject	Sessional Marks	Semester End Exam. Marks
Theory subjects	40	60
Laboratory subjects	40	60
Mini Project Work	100	--
Major Project Work	40	60

- 7.4 The performance of the student in each semester is evaluated subject wise. The Internal Examination consists of a midterm examination for 30 Marks (18 Marks for Sessional Test and 12 Marks for Assignment Test) and an Assignment for 10 Marks. The Semester End examination will be conducted for 60 marks. The Internal Evaluation for Theory subjects is based on performances in the two midterm examinations one held in the middle of the semester and another held immediately after the completion of the instruction. The Sessional marks for the midterm examinations shall be awarded giving a weight age of 15 marks out of 18 marks (80% approx.) to that midterm examination in which the candidate scores more marks and the remaining 3 marks (20% approx.) for other midterm examination in which the candidate scores less marks. Similarly a weight age of 10 marks (80% approx.) out of 12 marks earmarked for assignment tests shall be given for the assignment in which the candidate scores more marks and remaining 2 marks (20% approx.) shall be given for the assignment test in which the candidate scores less marks. The internal evaluation for laboratory

subjects is based on the day-to-day performance and Semester End Internal Laboratory Examination.

- 7.5 The marks for Mini project work will be awarded by internal evaluation by a panel of two faculty members.
- 7.6 A student who could not secure a minimum of 50% aggregate sessional marks is not eligible to appear for the Semester End Examination and shall have to repeat that Semester.
- 7.7 If any student fails to get marks in internal assessments or abstains for the internal assessment tests, he/she has to get required marks in the Semester End Examination for a pass.
- 7.8 For each theory subjects, there is a comprehensive Semester End Examination at the end of each Semester.
- 7.9 For each laboratory subject the Semester End Examination is conducted by one internal and one external examiner appointed by the Principal of the College. The duration of the examination is specified in the detailed Schemes of Instruction & Examination.
- 7.10 Viva-voce Examination in Major Project Work is conducted by one internal examiner and one external examiner appointed by the Principal.
- 7.11 If any student failed in any subject, then he/she has to appear the Semester End Examination in that subject in the corresponding semester in subsequent academic year for a pass.

## **8. CONDITION(S) FOR PROMOTION**

A student shall be eligible for promotion to next semester, if he/she satisfies the minimum requirements of attendance and internal marks as stipulated in ***Clauses 5 and 7***.

## **9. CONDITIONS FOR PASS**

A student is declared to have passed in individual subject if he / she secures a minimum of 40% marks in theory and 50% marks in laboratory subjects / Mini Project Work / Major Project Work in Semester End Examination and a minimum of 50% marks in both Sessional & Semester End Examinations put together.

## 10. AWARD OF CREDITS

Credits are awarded for all subjects. Each theory subject is awarded 4 credits and each laboratory subject / Mini Project Work / MOOCs is awarded 2 credits. Major Project Work at the end of III Year II Semester is awarded 10 credits.

### 10.1 AWARD OF GRADES

S.No.	Range of Marks	Grade	Grade Points
1.	≥90%	O	10.0
2.	80%-89%	A+	9.0
3.	70%-79%	A	8.0
4.	60%-69%	B+	7.0
5.	55%-59%	B	6.0
6.	50%-54%	C	5.0
7.	≤49%	F	0.0
8.	The grade 'W' represents withdrawal/absent (subsequently changed into pass or C to O or F grade in the same semester)	W	0.0

10.2 A student securing 'F' grade in any subject there by securing zero grade points has to reappear and secure at least 'C' grade in the subsequent examinations for that subject.

10.3 After each semester, Grade sheet will be issued which will contain the following details:

- The list of subjects for each semester and corresponding credits and grades obtained,
- The Semester Grade Point Average (SGPA) for each semester and
- The Cumulative Grade Point Average (CGPA) of all subjects put together up to that semester.

SGPA is calculated based on the following formula:

$$\frac{\sum [\text{No.of credits} \times \text{Grade points}]}{\sum \text{No.of Credits}}$$

CGPA will be calculated in a similar manner, considering all the subjects up to that semester.



10.4 A consolidated Grade Sheet shall be issued to the student, after completing all, indicating the CGPA of all the Three years put together.

10.5 Conversion of CGPA into equivalent Percentage of marks:

$$\text{Equivalent Percentage of Marks} = 9.25 \times \text{CGPA}.$$

## 11. ELIGIBILITY FOR AWARD OF M.C.A DEGREE

The M.C.A. Degree shall be conferred on a student who satisfies the following requirements:

11.1 The student who satisfies the conditions for pass in all the subjects including labs of all the years as stipulated in **Clause 9**.

11.2 Maximum Time Limit for completion of M.C.A. Degree

A student, who fails to fulfill all the academic requirements for the award of the degree within six academic years from the year of admission, shall forfeit his/her seat in M.C.A Degree.

## 12. AWARD OF CLASS

A student who becomes eligible for the award of M.C.A Degree as stipulated in **Clause 10** shall be placed in one of the following Classes.

S.No.	Class	CGPA
1	First Class With Distinction	8.0 or more
2	First Class	6.5 or more but less than 8.0
3	Second Class	5.0 or more but less than 6.5

## 13. AWARD OF RANK

The rank shall be awarded based on the following:

13.1 Ranks shall be awarded for the top five percent of the candidates appearing for the Regular Semester End Examinations or the top ten candidates whichever is minimum.

13.2 The Rank shall be awarded only to those students who complete

their degree within three academic years.

13.3 For the purpose of awarding rank, those students who have passed all subjects in the first attempt only shall be considered.

#### **14. TRANSITORY REGULATIONS**

14.1 A student, who is detained or discontinued in any semester, on readmission shall be required to do all the courses in the curriculum prescribed for such batch of candidates in which the candidates joins subsequently.

14.2 A student, studied under Acharya Nagarjuna University regulations, detained due to lack of academics/attendance at the end of the I Year I Semester, shall join in I Year I Semester of R-17 regulations.

14.3 A student, studied under Acharya Nagarjuna University regulations, detained due to lack of academics/attendance at the end of the I Year II Semester and onwards, shall continue Acharya Nagarjuna University regulations.

#### **15. CONDUCT AND DISCIPLINE**

15.1 Students shall conduct themselves within and outside the premises of the institute in a manner befitting the candidates of our institution.

15.2 As per the order of Hon'ble Supreme Court of India, ragging in any form is considered as a criminal offence and is banned. Any form of ragging will be severely dealt with.

15.3 The following acts of omission and / or commission shall constitute gross violation of the code of conduct and are liable to invoke disciplinary measures with regard to ragging.

- a) Lack of courtesy and decorum, indecent behavior anywhere within or outside the campus.
- b) Willful damage of college / individual property.
- c) Possession, consumption or distribution of alcoholic drinks or any kind of narcotics or hallucinogenic drugs.

- d) Mutilation or unauthorized possession of library books.
- e) Noisy and unseemly behavior, disturbing studies of fellow candidates.
- f) Hacking of computer systems (such as entering into other person's areas without prior permission, manipulation and / or damage of computer hardware and software or any other cyber-crime etc.).
- g) Usage of camera / cell phone in the campus.
- h) Plagiarism of any nature.
- i) Any other acts of gross indiscipline as decided by the academic council from time to time.

15.4 Commensurate with the gravity of offense, the punishment may be reprimand, fine, expulsion from the institute / hostel, debar from examination, disallowing the use of certain facilities of the institute, rustication for a specified period or even outright expulsion from the institute or even handing over the case to appropriate law enforcement or the judiciary, as required by the circumstances.

15.5 For an offence committed in (i) a hostel (ii) a department or in a class room (iii) elsewhere, the chief warden, the head of the department and the principal respectively, shall have the authority to reprimand or impose fine.

15.6 Cases of adoption of unfair means and / or any malpractice in an examination shall be reported to the principal for taking appropriate action.

15.7 All cases of serious offence, possibly requiring punishment other than reprimand, shall be reported to the academic council.

15.8 The institute level standing disciplinary action committee constituted by the academic council shall be the authority to investigate the details of the offence, and recommend disciplinary action based on the nature and extent of the offence committed.

15.9 The principal shall deal with any academic problem, which is not

covered under these rules and regulations, in consultation with the programmes committee in an appropriate manner, and subsequently such actions shall be placed before the academic council for ratification. Any emergency modification of regulation, approved by the appropriate authority, shall be reported to the academic council for ratification.

15.10 "Grievance and Redressal Committee" (General) constituted by the Principal shall deal with all grievances pertaining to the academic / administrative / disciplinary matters.

## **16. MALPRACTICES**

16.1 The Principal shall refer the cases of malpractices in internal assessment tests and semester-end examinations to a malpractice enquiry committee constituted by him / her for the purpose. Such committee shall follow the approved scales of punishment. The principal shall take necessary action, against the erring candidates basing on the recommendations of the committee.

16.2 Any action on the part of a candidate during an examination trying to get undue advantage or trying to help another, or drive the same through unfair means is punishable according to the provisions contained hereunder. The involvement of the staff, who are in-charge of conducting examinations, valuing examination papers and preparing / keeping records of documents relating to the examinations in such acts (inclusive of providing incorrect or misleading information) that infringe upon the course of natural justice to one and all concerned in the examination shall be viewed seriously and recommended for award of appropriate punishment after thorough enquiry.

## **17. AMENDMENTS**

The College may, from time to time, revise, amend, or change the Regulations, Schemes of Examinations, and / or Syllabus.