

**GODAVARI INSTITUTE OF ENGINEERING AND TECHNOLOGY (A),RAJAHMUNDRY
COURSE STRUCTURE (GRCA-20)**

MASTER OF COMPUTER APPLICATIONS

**Approved by AICTE, Accredited by NBA & NAAC 'A+' Grade, Recognized under 2(f) and 12(b) of UGC,
Permanently Affiliated to JNTUK, Kakinada**

NH-16, Chaitanya Knowledge City, Rajahmundry – 533296. E.G.Dt., - AP.



DEPARTMENT OF COMPUTER APPLICATIONS

2 YEARS MCA COURSE STRUCTURE

(2020-21)

GODAVARI INSTITUTE OF ENGINEERING AND TECHNOLOGY (A),RAJAHMUNDRY
COURSE STRUCTURE (GRCA-20)

MASTER OF COMPUTER APPLICATIONS

I Year

I Semester

| S. No. | Course Code | Course Title | Periods per week | | | C | Scheme of Examination Maximum Marks | | |
|--------|-------------|---|------------------|---|---|-----------|--|------------|------------|
| | | | L | T | P | | Int. | Ext. | Total |
| 1. | 20309101 | Probability and Statistics | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 2. | 20309102 | Discrete Mathematical Structures | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 3. | 20300103 | Problem Solving using C & Data Structures | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 4. | 20300104 | Computer Organization | 4 | - | - | 4 | 30 | 70 | 100 |
| 5. | 20300105 | Database Management Systems | 4 | - | - | 4 | 30 | 70 | 100 |
| 6. | 20300111 | C &Data Structures Lab | - | - | 3 | 1.5 | 30 | 70 | 100 |
| 7. | 20300112 | Database Management Systems Lab | - | - | 3 | 1.5 | 30 | 70 | 100 |
| 8. | 20300113 | Python Programming Lab | - | - | 4 | 2 | 30 | 70 | 100 |
| Total | | | | | | 25 | 240 | 560 | 800 |

L- LECTURE T-TUTORIAL P – PRACTICAL C – CREDITS Int. – INTERNAL Ext. - EXTERNAL



University Nominee
(Dr.Ch.Suresh)



Subject Expert-1
(Dr.B.Sateesh Kumar)



Subject Expert-2
(Dr.K.V.Kadambari)



Industry Expert
(Mr.Rajasekhar Raavi)



Member, GIET (A)
(Mrs.R.Tamilkodi)



Member, GIET (A)
(Mr.L.V.Kiran)



Member, GIET (A)
(Mr.K.Praveen Kumar)



Member, GIET (A)
(Mrs.N.Durga Devi)



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COURSE STRUCTURE (GRCA-20)

MASTER OF COMPUTER APPLICATIONS

I Year

II Semester

| S. No. | Course Code | Course Title | Periods per week | | | C | Scheme of Examination Maximum Marks | | |
|--------|-------------|---------------------------------|------------------|---|---|-----------|-------------------------------------|------------|------------|
| | | | L | T | P | | Int. | Ext. | Total |
| 1. | 20300201 | OOPS Through Java | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 2. | 20300202 | Operating Systems | 4 | - | - | 4 | 30 | 70 | 100 |
| 3. | 20300203 | Software Engineering | 4 | - | - | 4 | 30 | 70 | 100 |
| 4. | 20300204 | Design & Analysis of Algorithms | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 5. | 20300205 | Computer Networks | 4 | - | - | 4 | 30 | 70 | 100 |
| 6. | 20300211 | OOPS Through Java Lab | - | - | 4 | 2 | 30 | 70 | 100 |
| 7. | 20300212 | Operating Systems and Unix Lab | - | - | 3 | 1.5 | 30 | 70 | 100 |
| 8. | 20300213 | Software Engineering Lab | - | - | 3 | 1.5 | 30 | 70 | 100 |
| | | Total | | | | 25 | 240 | 560 | 800 |

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MASTER OF COMPUTER APPLICATIONS

II Year

III Semester

| S. No. | Course Code | Course Title | Periods per week | | | C | Scheme of Examination Maximum Marks | | |
|--------|-------------------|-------------------------------------|------------------|---|---|-----------|--|------------|------------|
| | | | L | T | P | | Int. | Ext. | Total |
| 1. | 20300301 | Full Stack Web Development | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 2. | 20300302 | Data Science | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 3. | 20300303 | Internet of Things | 3 | 1 | - | 4 | 30 | 70 | 100 |
| 4. | 20300364(A/B/C/D) | Elective -1 | 4 | - | - | 4 | 30 | 70 | 100 |
| 5. | 20309305 | Professional Ethics | 4 | - | - | 4 | 30 | 70 | 100 |
| 6. | 20300311 | Full Stack Web Development Lab | - | - | 4 | 2 | 30 | 70 | 100 |
| 7. | 20300312 | Data Science with R Programming Lab | - | - | 3 | 1.5 | 30 | 70 | 100 |
| 8. | 20300313 | Internet of Things Lab | - | - | 3 | 1.5 | 30 | 70 | 100 |
| 9. | 20300321 | Mini Project # | | | | 2 | 50 | - | 50 |
| Total | | | | | | 27 | 290 | 560 | 850 |

L- LECTURE T-TUTORIAL P – PRACTICAL C – CREDITS Int. – INTERNAL Ext. – EXTERNAL

This can be done within the Institute /Internship in Industry during *semester break* and evaluated at the end of 3rd Sem.

LIST OF ELECTIVES

Department Elective 1:

- A. Cyber Security and Forensics (20300364A)
- B. Software Testing and Quality Management (20300364B)
- C. Design Patterns (20300364C)
- D. Simulation Modelling (20300364D)



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II Year

IV Semester

| S. No. | Course Code | Course Title | Periods per week | | | C | Scheme of Examination Maximum Marks | | |
|--------|--------------------|---------------------------|------------------|---|---|-----------|--|------------|------------|
| | | | L | T | P | | Int. | Ext. | Total |
| 1. | 20300461(A/B/C/D) | Elective -2 | 4 | 0 | - | 4 | 30 | 70 | 100 |
| 2. | 20300462 (A/B/C/D) | Elective -3 | 4 | 0 | - | 4 | 30 | 70 | 100 |
| 3. | 20300431 | Seminar | - | - | - | 2 | 50 | - | 50 |
| 4. | 20300441 | Project Work/Dissertation | - | - | - | 10 | - | 100 | 100 |
| Total | | | | | | 20 | 110 | 240 | 350 |

L- LECTURE T-TUTORIAL P – PRACTICAL C – CREDITS Int. – INTERNAL Ext. – EXTERNAL

LIST OF ELECTIVES

Department Elective 2:

- A. Digital Image Processing (20300461A)
- B. Machine Learning (20300461B)
- C. Big Data Analytics (20300461C)
- D. MOOCS - 1 (NPTEL/SWAYAM) (20300461D) *

Department Elective 3:

- A. Software Project and Process Management (20300462A)
- B. Multimedia Applications and Development (20300462B)
- C. Cloud Computing (20300462C)
- D. MOOCS - 2 (NPTEL/SWAYAM) (20300462D) *

***Students going for Industrial Project/Thesis will complete these courses through MOOCs**



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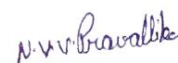
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