

**GOA UNIVERSITY**

**SECOND/THIRD YEAR OF BACHELOR'S DEGREE COURSE IN COMPUTER  
ENGINEERING**

**(REVISED IN 2007-08)**

**SCHEME OF INSTRUCTION AND EXAMINATION**

**SEMISTER III**

Sub Code	Subject	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th.Dur (Hrs)	Marks				
						Th.	S	P	O	Total
CE3.1 AM3	Applied Mathematics-III	3	1	0	3	100	20+5	-	-	125
CE3.2BC++	Basics of C++	3	1	2	3	100	20+5	50	-	175
CE3.3PPL	Principles of Programming Languages	3	0	2	3	100	20+5	-	-	125
CE3.4CONT	Computer Oriented Numerical Techniques	3	1	2	3	100	20+5	-	-	125
CE3.5LD	Logic Design	3	1	2	3	100	20+5	50	-	175
CE3.6IE	Integrated Electronics	3	1	2	3	100	20+5	-	-	125
<b>TOTAL</b>		<b>18</b>	<b>05</b>	<b>10</b>	<b>-</b>	<b>600</b>	<b>150</b>	<b>100</b>	<b>0</b>	<b>850</b>

L-lecture, T: Tutorials, P-Practical

Th.Dur: Duration of the Paper

Th: Theory, S: Sessional, P:Practical,O: Oral

25 Sessional marks will be split as follows:

20 marks are for the Internal Test.

5 marks are for continuous evaluation of Practicals/Assignments

## GOA UNIVERSITY

### SECOND/THIRD YEAR OF BACHELOR'S DEGREE COURSE IN COMPUTER ENGINEERING

(REVISED IN 2007-08)

#### SCHEME OF INSTRUCTION AND EXAMINATION

##### SEMISTER IV

Sub Code	Subject	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th.Dur (Hrs)	Marks				
						Th.	S	P	O	Total
CE4.1 DM3	Discrete mathematical Structures	3	1	0	3	100	20+5	-	-	125
CE4.2DS	Data Structure	3	1	2	3	100	20+5	50	-	175
CE4.3CO	Computer Organization	3	1	2	3	100	20+5	-	-	125
CE4.4EM	Electronic Measurements	3	1	0	3	100	20+5	-	-	125
CE4.5SAD	System Analysis and Design	3	1	2	3	100	20+5	-	-	125
CE4.6OOPC	Object Oriented Programming And Design Using C++	3	1	2	3	100	20+5	50	-	175
<b>TOTAL</b>		<b>18</b>	<b>06</b>	<b>8</b>	-	<b>600</b>	<b>150</b>	<b>100</b>	<b>0</b>	<b>850</b>

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### THIRD YEAR OF BACHELOR'S DEGREE COURSE IN COMPUTER ENGINEERING

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#### SCHEME OF INSTRUCTION AND EXAMINATION

##### SEMISTER V

Sub Code	Subject	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th.Dur (Hrs)	Marks				
						Th.	S	P	O	Total
CE 5.1	Organizational Behaviour and Cyber Law	3	0	0	3	100	20+5	-	-	125
CE 5.2	Automata Language and Computation	3	0	2	3	100	20+5	-	-	125
CE 5.3	Microprocessors and Microcontrollers	3	1	2	3	100	20+5	50		175
CE 5.4	Computer Hardware Design	3	1	2	3	100	20+5	-	-	125
CE 5.5	Database Management System	3	1	2	3	100	20+5	50	-	175
CE 5.6	Operating Systems	3	1	2	3	100	20+5	-	-	125
<b>TOTAL</b>		<b>18</b>	<b>04</b>	<b>10</b>	-	<b>600</b>	<b>150</b>	<b>100</b>	-	<b>850</b>

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**SEMISTER VI**

Sub Code	Subject	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th.Dur (Hrs)	Marks				
						Th.	S	P	O	Total
CE 6.1	Modern Algorithm Design Foundation	3	0	0	3	100	20+5	-	-	125
CE 6.2	Object Oriented Software Engineering	3	0	2	3	100	20+5	-	-	125
CE 6.3	Artificial Intelligence	3	1	2	3	100	20+5	50		175
CE 6.4	Computer Graphics	3	1	2	3	100	20+5	50	-	175
CE 6.5	Device Interface and PC Maintenance	3	1	2	3	100	20+5	-	-	125
CE 6.6	Data Communications	3	1	2	3	100	20+5	-	-	125
<b>TOTAL</b>		<b>18</b>	<b>04</b>	<b>10</b>	<b>-</b>	<b>600</b>	<b>150</b>	<b>100</b>	<b>-</b>	<b>850</b>

L-lecture, T: Tutorials, P-Practical

Th.Dur: Duration of the Paper

Th: Theory, S: Sessional, P: Practical, O: Oral.

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**SEMISTER VII**

Sub Code	Subject	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th.Dur (Hrs)	Marks				
						Th.	S	P	O	Total
CE 7.1LT	Language Translators	3	1	2	3	100	25	-	25	150
CE 7.2CN	Computer Networks	3	1	2	3	100	25	-	25	150
CE 7.3DSP	Digital Signal Processing	3	1	2	3	100	25	-	50	175
CE 7.4	Elective I	3	1	2	3	100	25	-	50	175
CE 7.5	Elective II	3	1	0	3	100	25	-	-	125
CE 7.6	Project	-	-	4	-	-	25	-	50*	75
<b>TOTAL</b>		<b>15</b>	<b>05</b>	<b>12</b>	<b>-</b>	<b>500</b>	<b>150</b>	<b>-</b>	<b>200</b>	<b>850</b>

**\*25 Sessional marks will be split as follows:**

20 marks are for the Internal Test

5 marks are for continuous evaluation of Practicals/Assignments

**\*Seminar & Project Oral**

**Electives: A student must take One Elective from each Group.**

**Group I: Subjects for CE 7.4**

- a) VLSI Design
- b) Software Development Frameworks (J2EE/NET)
- c) Fuzzy Logic and Neural Networks
- d) Web Technologies

**Group II: Subjects for CE 7.5**

- a) Data Compression
- b) Geographical Information System
- c) Bio Informatics
- d) Project Management and Quality Assurance

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**SEMESTER VIII**

Sub Code	Subject	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th.Dur (Hrs)	Marks				
						Th.	S	P	O	Total
CE 8.1ADSA	Advanced Data Structures and Algorithms	3	1	2	3	100	25	-	50	175
CE 8.2CCNS	Computer Cryptography and Network Security	3	1	2	3	100	25	-	50	175
CE 8.3	Elective III	3	1	2	3	100	25	-	50	175
CE 8.4	Elective IV	3	1	2	3	100	25	-	50	175
CE 8.5	Project	-	-	8	-	-	50	-	100*	150
<b>TOTAL</b>		<b>12</b>	<b>04</b>	<b>16</b>	<b>-</b>	<b>400</b>	<b>150</b>	<b>-</b>	<b>300</b>	<b>850</b>

**\*25 Sessional marks will be split as follows:**

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**\*Seminar & Project Oral**

**Electives: A student must take One Elective from each Group.**

**Group III: Subject for CE 8.3**

- a) Embedded System Design
- b) Multimedia Systems
- c) Distributed Operating System
- d) Data Mining
- e) Web Services

**Group VI: Subject for CE 8.4**

- a) Genetic Algorithms
- b) Image Processing
- c) Mobile Computing
- d) Machine Vision and Learning