GOA UNIVERSITY

FIRST YEAR OF BACHELOR'S DEGREE COURSE IN CIVIL ENGINEERING

(Revised in 2007-08)

SCHEME OF INSTRUCTION AND EXAMINATION

SEMESTER I: (Common for all branches of Engineering)

Sub Code	Subjects	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th. Dur (Hrs)	Marks				
						Th.	S	P	O	Total
1.1	Applied Mathematics I	4	-	-	3	100	25	-	-	125
1.2	Applied Science-1 (Physics & Chemistry)	4	-	2	3	100	50	-	-	150
1.3	Basic Civil Engineering and Engineering Mechanics.	4	-	2	3	100	25	-	-	125
1.4	Basic Electrical Engineering	3	-	2	3	100	25	-	-	125
1.5	Engineering Graphics	2	-	4	4	100	50	-	-	150
1.6	Communication Skills	3	-	-	3	100	25	-	-	125
1.7	Workshop Practice-I	-	-	4	-	-	50	-	-	50
	TOTAL	**20**		**14**		**600**	**250**			**850**

L-Lectures-Tutorials-Practicals. Th.dur-Duration of Theory Paper, Th-Theory, S-Sessional, P-Practical, O-Oral.

GOA UNIVERSITY

FIRST YEAR OF BACHELOR'S DEGREE COURSE IN CIVIL ENGINEERING

(Revised in 2007-08)

SCHEME OF INSTRUCTION AND EXAMINATION

SEMESTER II: (Common for all branches of Engineering)

Sub Code	Subjects	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th. Dur (Hrs)	Marks				
						Th.	S	P	O	Total
2.1	Applied Mathematics II	4	-	-	3	100	25	-	-	125
2.2	Applied Science-II (Physics & Chemistry)	4	-	2	3	100	50	-	-	150
2.3	Information Technology	4	-	2	3	100	25	-	-	125
2.4	Basic Mechanical Engineering	3	-	2	3	100	25	-	-	125
2.5	Basic Electronic Engineering	3	-	2	3	100	25	-	-	125
2.6	Environmental and Social Sciences	4	-	-	3	100	50	-	-	150
2.7	Workshop Practice-II	-	-	4	-	-	50	-	-	50
	TOTAL	**22**		**12**	**-**	**600**	**250**	**-**	**-**	**850**

L-Lectures-Tutorials-Practicals.
Th.dur-Duration of Theory Paper
Th-Theory, S-Sessional, P-Practical, O-Oral.

GOA UNIVERSITY

SECOND YEAR OF BACHELOR'S DEGREE COURSE IN MECHANICAL ENGINEERING

(Revised in 2007-08)

SCHEME OF INSTRUCTION AND EXAMINATION

SEMESTER III:

Sub Code	Name of the Subjects	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th. Dur (Hrs)	Marks				
						Th.	S	P	O	Total
3.1	Engineering Mathematics	3	1	-	3	100	25	-	-	125
3.2	Machine Drawing	1	1	3	4	100	25	-	-	125
3.3	Applied Thermodynamics	3	1	-	3	100	25	-	-	125
3.4	Engineering Material Science	3	1	-	3	100	25	-	-	125
3.5	Fluid Mechanics	3	1	-	3	100	25	-	-	125
3.6	Digital Electronics & Microprocessor Application	3	1	-	3	100	25	-	-	125
3.7	Practical in Applied Thermodynamics	-	-	2	-	-	-	25	-	25
3.8	Practical in Engineering Material Science	-	-	2	-	-	-	25	-	25
3.9	Practical in Fluid Mechanics	-	-	2	-	-	-	25	-	25
3.10	Practical in Digital Electronics & Microprocessor Application	-	-	2	-	-	-	25	-	25
TOTAL		**16**	**06**	**11**	**-**	**600**	**150**	**100**	**-**	**850**

L-lecture, T: Tutorials, P-Practical

Th.Dur: Duration of the Paper

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

GOA UNIVERSITY

SECOND YEAR OF BACHELOR'S DEGREE COURSE IN MECHANICAL ENGINEERING

(Revised in 2007-08)

SCHEME OF INSTRUCTION AND EXAMINATION

SEMESTER IV:

Sub Code	Name of the Subjects	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th. Dur (Hrs)	Marks				
						Th.	S	P	O	Total
4.1	Theory of Machines I	3	-	2	3	100	25	-	-	125
4.2	Mechanics of Solids	3	1	-	3	100	25	-	-	125
4.3	Numerical Techniques & Computer Programming	3	1	-	3	100	25	-	-	125
4.4	Electrical Technology	3	-	-	3	100	25	-	-	125
4.5	Manufacturing Technology I	3	1	-	3	100	25	-	-	125
4.6	Energy Conversion	3	1	-	3	100	25	-	-	125
4.7	Practical in Numerical Techniques & Computer Programming	-	-	2	-	-	-	25	-	25
4.8	Practical in Electrical Technology	-	-	2	-	-	-	25	-	25
4.9	Practical in Manufacturing Technology I	-	-	2	-	-	-	25	-	25
4.10	Practical in Energy Conversion	-	-	2	-	-	-	25	-	25
TOTAL		**18**	**4**	**10**	**-**	**600**	**150**	**100**	**-**	**850**

L-lecture, T: Tutorials, P-Practical
Th.Dur: Duration of the Paper
Th: Theory, S: Sessional, P:Practical,O: Oral

GOA UNIVERSITY

THIRD YEAR OF BACHELOR'S DEGREE COURSE IN MECHANICAL ENGINEERING

(Revised in 2007-08)

SCHEME OF INSTRUCTION AND EXAMINATION

SEMESTER V:

Sub Code	Name of the Subjects	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th. Dur (Hrs)	Marks				
						Th.	S	P	O	Total
5.1	Machine Design I	3	-	2	3	100	25	-	-	125
5.2	Engg Economics & Management	3	1	-	3	100	25	-	-	125
5.3	Heat & Mass Transfer	3	1	-	3	100	25	-	-	125
5.4	Manufacturing Technology II	3	1	-	3	100	25	-	-	125
5.5	Theory of Machines II	3	1	-	3	100	25	-	-	125
5.6	Quality Engg. Management	3	-	-	3	100	25	-	-	125
5.7	Practical Heat & Mass Transfer	-	-	2	-	-	-	25	-	25
5.8	Practical in Manufacturing Technology II	-	-	2	-	-	-	25	-	25
5.9	Practical in Theory of Machines II	-	-	2	-	-	-	25	-	25
5.10	Practical in Quality Engg. Management	-	-	2	-	-	-	-	25	25
TOTAL		**18**	**4**	**10**	**-**	**600**	**150**	**75**	**25**	**850**

L-lecture, T: Tutorials, P-Practical

Th.Dur: Duration of the Paper

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

GOA UNIVERSITY

THIRD YEAR OF BACHELOR'S DEGREE COURSE IN MECHANICAL ENGINEERING

(Revised in 2007-08)

SCHEME OF INSTRUCTION AND EXAMINATION

SEMESTER VI

Sub Code	Name of the Subjects	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th. Dur (Hrs)	Marks				
						Th.	S	P	O	Total
6.1	Industrial Engg.	3	1	-	3	100	25	-	-	125
6.2	Machine Design II	3	-	2	3	100	25	-	25	150
6.3	Gas Dynamics & Turbomachinaries	3	1	-	3	100	25	-	-	125
6.4	Engineering Measurements & Metrology	3	-	-	3	100	25	-	-	125
6.5	Mechatronics	3	1	-	3	100	25	-	-	125
6.6	Operations & Project Management	3	1	-	3	100	25	-	-	125
6.7	Practical Gas Dynamics & Turbomachinaries	-	-	2	-	-	-	25	-	25
6.8	Practical in Engineering Measurement & Metrology	-	-	2	-	-	-	25	-	25
6.9	Practical in Mechatronics	-	-	2	-	-	-	25	-	25
TOTAL		**18**	**04**	**08**	**-**	**600**	**150**	**75**	**25**	**850**

L-lecture, T: Tutorials, P-Practical

Th.Dur: Duration of the Paper

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

GOA UNIVERSITY

FINAL AND/FOURTH YEAR OF BACHELORS DEGREE COURSE IN MECHANICAL ENGINEERING
(Revised in 2007-08)
SCHEME OF INSTRUCTION AND EXAMINATION

SEMESTER VII

Sub Code	Subject	Scheme of Instruction Hrs/Week			Scheme Of Examination					
		L	T	P	Th.Dur (Hrs)	Marks				
						Th.	S	P	O	Total
7.1	CAD-CAM	3	1	2	3	100	25	25	25	175
7.2	Refrigeration & Air Conditioning	3	1	2	3	100	25	25	25	175
7.3	Manufacturing Technology III	3	1	-	3	100	25	-	-	125
7.4	Elective I	3	1	2*	3	100	25	-	25	150
7.5	Elective II	3	1	2*	3	100	25	-	25	150
7.6	Project	-	-	4	-	-	25**	-	50	75
TOTAL		**15**	**05**	**12**	**-**	**500**	**150**	**50**	**150**	**850**

L-lecture, T: Tutorials, P-Practical
Th.Dur: Duration of the Paper
Th: Theory, S: Sessional, P: Practical, O: Oral

*Practical slots for Elective Subjects are to be decided based on nature of subjects offered and explicitly specified in the Elective list.
A journal containing assignments such as design exercises/or experiments conducted and results obtained to be submitted for assessment.

** Progress Seminar of PROJECT

Elective 4- major groups (thermal, design, manufacturing and industrial) and I-non departmental like Computer, IT and management.

Revised Course (Revised in 2007-08) Sem VII (Mech) Elective to be introduced from I term of 2010-2011

Subject Code	Title
7.4.1	Advanced Mechanic of Solids

7.4.2	Tool Engg. Design
7.4.3	Cryogenics
7.4.4	Engineering Tribology
7.4.5	Management Information System
7.4.6	6-Sigma Management
7.4.7	Analysis & Synthesis of Mechanisms
7.4.8	Artificial Intelligence
7.5.1	Random Vibrations
7.5.2	Advanced material Technology
7.5.3	Rapid Prorotyping
7.5.4	Design of Thermal System
7.5.5	Stochastic Process
7.5.6	Applied O.R.
7.5.7	Automobile Engg.
7.5.8	MEMS

GOA UNIVERSITY

FINAL AND/FOURTH YEAR OF BACHELORS DEGREE COURSE IN MECHANICAL ENGINEERING
(Revised in 2007-08)
SCHEME OF INSTRUCTION AND EXAMINATION

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
8.1	Reliability based Design	3	1	-	3	100	25	-	50	175
8.2	Power Plant Engineering	3	1	-	3	100	25	-	50	175
8.3	Elective III	3	1	2*	3	100	25	-	50	175
8.4	Elective IV	3	1	2*	3	100	25	-	50	175
8.5	Project	-	-	8	-	-	50	-	100**	150
TOTAL		**12**	**04**	**12***	**-**	**400**	**150**	**-**	**300**	**850**

L-lecture, T: Tutorials, P-Practical
Th. Dur: Duration of the Paper
Th: Theory, S: Sessional, P: Practical, O: Oral

*Practical slots for Elective Subjects are to be decided based on nature of subjects offered and explicitly specified in the Elective list.
A journal containing assignments such as design exercises/or experiments conducted and results obtained to be submitted for assessment during oral examination.

** Semester, demonstration & Oral

Elective 4- major groups (thermal, design, manufacturing and industrial) and I-non departmental like Computer, IT and management.

BE (M)-Semester VIII

Elective III	
Code	**Title**
8.3.1	Finite element methods
8.3.2	Industrial Robotics
8.3.3	Computational Fluid Mechanics
8.3.4	Maintenance Engineering and Management
8.3.5	System Simulation
8.3.6	Control System Engineering
8.3.7	Energy Management

BE (M)-Semester VIII

Elective IV	
Code	**Title**
8.4.1	Precision Engineering
8.4.2	Advanced metal forming
8.4.3	Supply chain management
8.4.4	Low cost automation
8.4.5	Fluid power control
8.4.6	Nano Technology
8.4.7	Fibre Reinforced Composites