

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM
SCHEME OF TEACHING AND EXAMINATION**

I SEMESTER B.E./B.Tech.

PHYSICS GROUP

15

Sl. No.	Subject Code	Subject	Teaching Department	Board	Theory /Lab/ Drawing (Hrs/ Week)	Examination Marks		
						Th./Pr.	I.A.	Total
1	14MAT11	Engineering Maths-I	Maths	Basic Sc.	4 (T)	100	25	125
2	14PHY12	Engineering Physics	Physics	Basic Sc.	4 (T)	100	25	125
3	14CIV13	Elements of Civil Engg. & Engineering Mechanics	Civil Engg.	Civil Engg.	4 (T)	100	25	125
4	14EME14	Elements of Mechanical Engg.	Mech. Engg.	Mech. Engg.	4 (T)	100	25	125
5	14ELE15	Basic Electrical Engg.	E & E	E & E	4 (T)	100	25	125
6	14WSL16	Workshop Practice	Mech., Auto, IP, IEM, Mfg. Engg.	Mech. Engg.	3 (L)	50	25	75
7	14PHYL17	Engg. Physics Lab	Physics	Basic Sc.	3 (L)	50	25	75
8	14CIP18	*Constitution of India & Professional Ethics	Any Department		2 (T)	50	25	75
9		Language (Kan.)	Humanities		2 (T)	---	---	---
Total					30	**600	**175	775

II SEMESTER B.E./B.Tech.

PHYSICS GROUP

16

Sl. No.	Subject Code	Subject	Teaching Department	Board	Theory /Lab/ Drawing (Hrs/ Week)	Examination Marks		
						Th./Pr.	I.A.	Total
1	14MAT21	Engineering Maths-II	Maths	Basic Sc.	4 (T)	100	25	125
2	14PHY22	Engineering Physics	Physics	Basic Sc.	4 (T)	100	25	125
3	14CIV23	Elements of Civil Engg. & Engineering Mechanics	Civil Engg.	Civil Engg.	4 (T)	100	25	125
4	14EME24	Elements of Mechanical Engg.	Mech. Engg.	Mech. Engg.	4 (T)	100	25	125
5	14ELE25	Basic Electrical Engg.	E & E	E & E	4 (T)	100	25	125
6	14WSL26	Workshop Practice	Mech./IP/Auto/ Mfg.Engg./ IEM	Mech. Engg.	3 (L)	50	25	75
7	14PHYL27	Engg. Physics Lab	Physics	Basic Sc.	3 (L)	50	25	75
8	14CIP28	*Constitution of India & Professional Ethics	Any Department	Civil	2 (T)	50	25	75
9		Language (Kan.)	Humanities		2 (T)	---	---	---
Total					30	**600	**175	775

I SEMESTER B.E./B.Tech.**CHEMISTRY GROUP**

Sl. No.	Subject Code	Subject	Teaching Department	Board	Theory /Lab/ Drawing (Hrs/ Week)	Examination Marks		
						Th./Pr.	I.A.	Total
1	14MAT11	Engineering Maths-I	Maths	Basic Sc.	4 (T)	100	25	125
2	14CHE12	Engineering Chemistry	Chemistry	Basic Sc.	4 (T)	100	25	125
3	14PCD13	Programming in C & Data Structures	Any Engineering Department	CSE	4 (T)	100	25	125
4	14CED14	Computer Aided Engineering Drawing	Mech./IP/Auto/ Mfg.Engg./ IEM	Mech. Engg.	6 (2T + 4L)	100	25	125
5	14ELN15	Basic Electronics	E & C / E & E / TC / IT	E & C	4 (T)	100	25	125
6	14CPL16	Computer Programming Lab	Any Engineering Department	CSE	3 (L)	50	25	75
7	14CHEL17	Engg. Chemistry Lab	Chemistry	Basic Sc.	3 (L)	50	25	75
8	14CIV18	*Environmental Studies	Civil / Environmental	Civil	2 (T)	50	25	75
9		Language (Eng.)	Humanities		2 (T)	---	---	---
Total					32	**600	**175	775

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II SEMESTER B.E./B.Tech.**CHEMISTRY GROUP**

Sl. No.	Subject Code	Subject	Teaching Department	Board	Theory /Lab/ Drawing (Hrs/ Week)	Examination Marks		
						Th./Pr.	I.A.	Total
1	14MAT21	Engineering Maths-II	Maths	Basic Sc.	4 (T)	100	25	125
2	14CHE22	Engineering Chemistry	Chemistry	Basic Sc.	4 (T)	100	25	125
3	14PCD23	Programming in C & Data Structures	Any Engineering Department	CSE	4 (T)	100	25	125
4	14CED24	Computer Aided Engineering Drawing	Mech./IP/Auto/ Mfg.Engg./ IEM	Mech. Engg.	6 (2T + 4L)	100	25	125
5	14ELN25	Basic Electronics	E & C / E & E / TC / IT	E & C	4 (T)	100	25	125
6	14CPL26	Computer Programming Lab	Any Engineering Department	CSE	3 (L)	50	25	75
7	14CHEL27	Engg. Chemistry Lab	Chemistry	Basic Sc.	3 (3)	50	25	75
8	14CIV28	*Environmental Studies	Civil / Environmental	Civil	2 (T)	50	25	75
9		Language (Eng.)	Humanities		2 (T)	---	---	---
Total					32	**600	**175	775

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* CIP/Env.Engg. : Question Papers will be of Objective Type. Students have to pass the subject compulsorily, however marks will not be considered for awarding class / rank.

**Excluding Environmental Studies/Constitution of India & Professional Ethics

Language (Kan./Eng.) – Audit Course

**Visvesvaraya Technological University
Belgaum**

MBA

Master of Business Administration

Draft Syllabus

(Effective from 2014-15)

**SCHEME OF TEACHING AND EXAMINATION
MASTER OF BUSINESS ADMINISTRATION**

I SEMESTER

Subject Code	Title of the Subject	Teaching hours / week			Duration of Exam Hours	Marks for		Total Marks
		Lecture	Practical / Field Work / Assignment	Total		IA	Exam	
14MBA11	Management & Organisational Behaviour	4	1	5	3	50	100	150
14MBA12	Economics for Managers	4	1	5	3	50	100	150
14MBA13	Accounting for Managers	4	1	5	3	50	100	150
14MBA14	Business Government and Society	4	1	5	3	50	100	150
14MBA15	Marketing Management	4	1	5	3	50	100	150
14MBA16	Managerial Communication	4	1	5	3	50	100	150
	Total	24	6	30	18	300	600	900

II SEMESTER

Subject Code	Title of the Subject	Teaching hours / week			Duration of Exam Hours	Marks for		Total Marks
		Lecture	Practical / Field Work / Assignment	Total		IA	Exam	
14MBA21	Human Resource Management	4	1	5	3	50	100	150
14MBA22	Financial Management	4	1	5	3	50	100	150
14MBA23	Research Methods	4	1	5	3	50	100	150
14MBA24	Business Analytics	4	1	5	3	50	100	150
14MBA25	Strategic Management	4	1	5	3	50	100	150
14MBA26	Entrepreneurial Development	4	1	5	3	50	100	150
	Total	24	6	30	18	300	600	900

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM
SCHEME OF TEACHING AND EXAMINATION FOR
M.Tech. Structural Engineering (Tentative)

I Semester

CREDIT BASED

Subject Code	Name of the Subject	Teaching hours/week		Duration of Exam in Hours	Marks for		Total Marks	CREDITS
		Lecture	Practical / Field Work / Assignment/ Tutorials		I.A.	Exam		
14CSE11	Computational Structural Mechanics	4	2	3	50	100	150	4
14 CSE 12	Advanced Design of RCC Structures	4	2	3	50	100	150	4
14 CSE 13	Mechanics of Deformable Bodies	4	2	3	50	100	150	4
14 CSE 14	Structural Dynamics	4	2	3	50	100	150	4
14 CSE 15X	Elective - I	4	2	3	50	100	150	4
14 CSE 16	Structural Engineering Lab-1	--	3	3	25	50	75	2
14 CSE 17	Seminar	--	3	--	25	--	25	1
Total		20	16	18	300	550	850	23

Elective – 1

14 CSE 151 Design of Industrial Structures

14 CSE 152 Special concretes

14 CSE 153 Repair and Rehabilitation of Structures

14 CSE 154 AI & Expert System in Structural Engineering

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM
SCHEME OF TEACHING AND EXAMINATION FOR
M.Tech. Structural Engineering

II Semester

CREDIT BASED

Subject Code	Name of the Subject	Teaching hours/week		Duration of Exam in Hours	Marks for		Total Marks	CREDITS
		Lecture	Practical / Field Work / Assignment/ Tutorials		I.A.	Exam		
14CSE21	Design of Plates & Shells	4	2	3	50	100	150	4
14 CSE 22	Earthquake Resistant Structures	4	2	3	50	100	150	4
14 CSE 23	Finite Element Method of Analysis	4	2	3	50	100	150	4
14 CSE 24	Design concepts of Substructures	4	2	3	50	100	150	4
14 CSE 25X	Elective-II	4	2	3	50	100	150	4
14 CSE 26	Structural Engineering Lab-2		3	3	25	50	75	2
14 CSE 27	Seminar	--	3	--	25	--	25	1
	**Project Phase-I(6 week Duration)	--	--	--	--	--	--	--
Total		20	16	18	300	550	850	23

Elective – 2

14 CSE 251 Reliability Analysis of Structures

14 CSE 252 Design of Tall Structures

14 CSE 253 Masonry structures

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM

SCHEME OF TEACHING AND EXAMINATION FOR M.TECH. Machine Design

I SEMESTER

CREDIT BASED

Subject Code	Name of the Subject	Teaching hours/week		Duration of Exam in Hours	Marks for		Total Marks	CREDITS
		Lecture	Practical / Field Work / Assignment/ Tutorials		I.A.	Exam		
14 MDE11	Applied Mathematics	4	2	3	50	100	150	4
14 MDE12	Finite Element Method	4	2	3	50	100	150	4
14CAE13	Continuum Mechanics	4	2	3	50	100	150	4
14CAE14	Experimental Mechanics	4	2	3	50	100	150	4
	Elective – I	4	2	3	50	100	150	4
14MDE16	Design Engineering Lab I	--	3	--	25	50	75	2
14MMD17	SEMINAR	--	3	--	25	--	25	1
Total		20	13	15	300	550	850	23

ELECTIVE-I

14MDE 151	Computer Graphics	14 MDE 153	Mechatronics System Design
14MDE 152	Computer Applications in Design	14MDE 154	Design for Manufacture
14MEA155	Advanced Fluid Dynamics		

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM

SCHEME OF TEACHING AND EXAMINATION FOR

M.TECH. Machine Design

II SEMESTER

CREDIT BASED

Subject Code	Name of the Subject	Teaching hours/week		Duration of Exam in Hours	Marks for		Total Marks	CREDITS
		Lecture	Practical / Field Work / Assignment/ Tutorials		I.A.	Exam		
14MST 21	Composite Materials Technology	4	2	3	50	100	150	4
14MDE 22	Advanced Machine Design	4	2	3	50	100	150	4
14MDE 23	Dynamics & Mechanism Design	4	2	3	50	100	150	4
14MDE 24	Advanced Theory of Vibrations	4	2	3	50	100	150	4
	Elective – II	4	2	3	50	100	150	4
14MDE26	Design Engineering Lab II		3	3	25	50	75	2
14MMD27	SEMINAR	--	3	--	25	--	25	1
	**PROJECT WORK PHASE-I COMMENCEMENT (6 WEEKS DURATION)	--	--	--	--	--	--	--
Total		20	13	15	300	550	850	23

ELECTIVE-II

14CAE 251	Design Optimization	14CAE 253	Advanced Manufacturing Process Simulation
14MDE252	Theory of Plasticity	14MDE 254	Rotor Dynamics
14MEA255	Automobile System Design		

**** Between the II Semester and III Semester, after availing a vacation of 2 weeks.**

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM

SCHEME OF TEACHING AND EXAMINATION FOR M.TECH(COMPUTER SCIENCE and ENGINEERING)

I Semester

Total Credits: 23

Subject Code	Name of the Subject	Teaching hours/week		Duration of Exam in Hours	Marks for		Total Marks	CREDIT S
		Lecture	Practical / Fieldwork / Assignment / Tutorials		I.A.	Exam		
14SCS11	Advances in Operating Systems	4	--	03	50	100	150	4
14SCS12	Cloud Computing	4	2 *	03	50	100	150	4
14SCS13	Advances in Data Base Management System	4	2 *	03	50	100	150	4
14SCS14	Multi Core Architecture and Programming	4	2	03	50	100	150	4
14SCS15x	Elective – I	4	2	03	50	100	150	4
14SCS16	Advances in Operating Systems Laboratory	0	3	03	25	50	75	2
14SCS17	Seminar #	0	3	--	25	--	25	1
Total		20	13	18	300	550	850	23

Elective I:

- 14SCS151 Advances in Digital Image Processing
- 14SCS152 Advances in Storage Area Networks
- 14SCS153 Embedded Computing Systems
- 14SCS154 Advances in Computer Graphics

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM
SCHEME OF TEACHING AND EXAMINATION FOR
M.TECH(COMPUTER SCIENCE and ENGINEERING)

II Semester

Total Credits: 23

Subject Code	Name of the Subject	Teaching hours/week		Duration of Exam in Hours	Marks for		Total Marks	CREDIT S
		Lecture	Practical / Fieldwork/ Assignment / Tutorials		I.A.	Exam		
14SCS21	Managing Big Data	4	2 *	03	50	100	150	4
14SCS22	Advances in Computer Networks	4	2 *	03	50	100	150	4
14SCS23	Advanced Algorithms	4	--	03	50	100	150	4
14SCS24	Artificial Intelligence and Agent Technology	4	2	03	50	100	150	44
14SCS25x	Elective – II	4	2	03	50	100	150	4
14SCS26	Advanced Algorithms Laboratory	0	3	03	25	50	75	2
14SCS27	Seminar #	0	3	--	25	--	25	1
	** Project Phase I (6 Week Duration)	--	--	--	--	--	--	--
Total		20	13	18	300	550	850	23

ELECTIVE- II

- 14SCS251 Web Services
- 14SCS252 Information and Network Security
- 14SCS253 Pattern Recognition
- 14SCS254 Optical Networks

**** Between the II Semester and III Semester after availing a vacation of 2 weeks.**

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM

SCHEME OF TEACHING AND EXAMINATION FOR M.TECH. Thermal Power Engineering.

I SEMESTER

CREDIT BASED

Subject Code	Name of the Subject	Teaching hours/week		Duration of Exam in Hours	Marks for		Total Marks	CREDITS
		Lecture	Practical / Field Work / Assignment/ Tutorials		I.A.	Exam		
14MDE11	Applied Mathematics	4	2	3	50	100	150	4
14MTP12	Finite Element Method	4	2	3	50	100	150	4
14MTP13	Advanced Fluid Mechanics	4	2	3	50	100	150	4
14MTP14	Thermodynamics & Combustion Engineering	4	2	3	50	100	150	4
	Elective – I	4	2	3	50	100	150	4
14MTP16	Thermal Engineering Measurement Lab- 1	--	3	--	25	50	75	2
14MTP17	SEMINAR	--	3	--	25	--	25	1
Total		20	13	15	300	550	850	23

ELECTIVE-I

14MTP 151	Non Conventional Energy System	14 MTP 153	Energy Conservation and Management
14MTP 152	Nuclear Energy Conversion	14MTP 154	Refrigeration and Air Conditioning

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM
SCHEME OF TEACHING AND EXAMINATION FOR
M.TECH. Thermal Power Engineering.

II SEMESTER

CREDIT BASED

Subject Code	Name of the Subject	Teaching hours/week		Duration of Exam in Hours	Marks for		Total Marks	CREDITS
		Lecture	Practical / Field Work / Assignment/ Tutorials		I.A.	Exam		
14MTP 21	Advanced Heat Transfer	4	2	3	50	100	150	4
14MTP 22	Steam & Gas Turbines	4	2	3	50	100	150	4
14MTP 23	Advanced Power Plant Cycles	4	2	3	50	100	150	4
14MTP 24	Theory of IC Engines	4	2	3	50	100	150	4
	Elective - II	4	2	3	50	100	150	4
14MTP26	Simulation Laboratory Projects on Thermal Engineering - Lab 2		3	3	25	50	75	2
14MTP27	SEMINAR	--	3	--	25	--	25	1
	**PROJECT WORK PHASE-I COMMENCEMENT (6 WEEKS DURATION)	--	--	--	--	--	--	--
Total		20	13	15	300	550	850	23

ELECTIVE-II

14MTP 251	Thermal Power Station - 1	14MTP 253	Modeling and Simulation of Thermal Systems
14MTP252	Alternate Fuels for IC Engines	14MTH 254	Computational Methods in Heat Transfer & Fluid Flow

**** Between the II Semester and III Semester, after availing a vacation of 2 weeks.**

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM
SCHEME OF TEACHING AND EXAMINATION FOR
M.Tech. Electronics

I Semester

CREDIT BASED

Subject Code	Name of the Subject	Teaching hours/week		Duration of Exam in Hours	Marks for		Total Marks	CREDITS
		Lecture	Practical / Field Work / Assignment/ Tutorials		I.A.	Exam		
14ELD11	Advanced Mathematics	4	2	3	50	100	150	4
14EVE12	Digital VLSI Design	4	2	3	50	100	150	4
14EVE13	Advanced Embedded Systems	4	2	3	50	100	150	4
14ELD14	Digital Circuits and Logic Design	4	2	3	50	100	150	4
14ELD15X	Elective - I	4	2	3	50	100	150	4
14ELD16	Digital Electronics Lab -1	--	3	3	25	50	75	2
14ELD17	Seminar on Advanced topics from refereed journals	--	3	--	25	--	25	1
Total		20	16	18	300	550	850	23

Elective-1

14 ELD 151	Digital System Design using Verilog	14 EVE 154	ASIC Design
14 ELD 152	Automotive Electronics	14 ELD 155	Simulation, Modeling and Analysis
14 ELD 153	NanoElectronics		

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM
SCHEME OF TEACHING AND EXAMINATION FOR
M.Tech. Electronics

II Semester**CREDIT BASED**

Subject Code	Name of the Subject	Teaching hours/week		Duration of Exam in Hours	Marks for		Total Marks	CREDITS
		Lecture	Practical / Field Work / Assignment/ Tutorials		I.A.	Exam		
14ELD21	Modern DSP	4	2	3	50	100	150	4
14ELD22	Coding Theory	4	2	3	50	100	150	4
14ELD23	Digital Signal Compression	4	2	3	50	100	150	4
14ELD24	Real Time Operating Systems	4	2	3	50	100	150	4
14ELD25X	Elective-2	4	2	3	50	100	150	4
14ELD26	Digital Electronics Lab -2		3	3	25	50	75	2
14ELD27	Seminar on Advanced topics from refereed journals	--	3	--	25	--	25	1
**Project Phase-I(6 week Duration)								
Total		20	16	18	300	550	850	23

Elective -2:

14 ELD 251	VLSI Design and Verification	14 ECS 254	Multimedia Communication
14 ELD 252	Synthesis & Optimization of Digital Circuits	14 ECS 255	Spread Spectrum Communication
14 ELD 253	MEMS		

**** Between the II Semester and III Semester, after availing a vocation of 2 weeks.**