Centre for Environmental Sciences
Course Structure of Five Years Integrated M. Sc. in Environmental Sciences

Semester I

Sl. No.	Paper	Code	Credit (L+T+P)
1.	Basic Maths	MAT 111010	3+1+0
2.	Introductory Physics I	PHY 110020	3+0+0
3.	Principle of Chemistry I	CHM 110030	3+0+0
4.	Principles of Environmental Science and Ecology	ENV 111041	3+0+0
5.	Fundamentals of Computer and C Programming	COM 110050	2+0+2
6.	Environmental Studies	EVS 110060	3+0+0
7.	Ecology Lab	ENV 112070	0+0+2
8.	Introductory Physics I Lab	PHY 112080	0+0+2
9.	Principles of Chemistry I Lab	CHM 112090	0+0+2
		Total Credit	**26**

Semester II

Sl. No.	Paper	Code	Credit (L+T+P)
1.	Statistics	STA 121010	3+1+0
2.	Introductory Physics II	PHY 120020	3+1+0
3.	Principle of Chemistry II	CHM 120030	3+1+0
4.	English for Communication	ENG 120040	3+0+1
5.	Environmental Chemistry	ENV 121050	3+1+0
6.	Environmental Chemistry Lab	ENV 122100	0+0+2
7.	Introductory Physics II Lab	PHY 122110	0+0+2
8.	Principles of Chemistry II Lab	CHM 122120	0+0+2
		Total Credit	**26**

Semester III

Sl. No.	Paper	Code	Credit (L+T+P)
1.	Environmental Biology	ENV 211011	3+1+0
2.	Environmental Physics	ENV 211021	3+1+0
3.	Environmental Earth Science	ENV 211031	3+1+0
4.	Environmental Pollution	ENV 211040	3+1+0
5.	Disaster Management	LRM 210100	3+1+0
6.	Environmental Pollution and Earth Science Lab	ENV 212050	0+0+2
7.	Environmental Biology Lab	ENV 212060	0+0+2
8.	Local Field Visit to study Natural Ecosystem	ENV 213070	0+0+2
			26

Semester IV

Sl. No.	Paper	Code	Credit (L+T+P)
1.	Fundamentals of Soil Sciences	ENV 221010	3+1+0
2.	Environmental Microbiology and Biotechnology	ENV 221021	3+1+0
3.	Natural Resources and Management	ENV 221030	3+1+0
4.	Environmental Monitoring and Pollution Control Technologies	ENV 221040	3+1+0
5.	Environmental Microbiology and Biotechnology Lab	ENV 222050	0+0+2
6.	Soil Science Lab	ENV 222060	0+0+2
		Total Credit	**20**

Semester V (Electives) (any four from own Centre + one from other Centre)

Sl. No.	Paper	Code	Credit (L+T+P)
1.	Environmental Issues (E1)	ENV 315010	3+1+0
2.	Biodiversity (E2)	ENV 315020	3+1+0
3.	Aerosol & Environment (E3)	ENV 315030	3+1+0
4.	Forestry and Wildlife Management (E4)	ENV 315041	3+1+0
5.	Global Energy Scenario & Resources (E5)	ENV 315050	3+1+0
6.	Industrial Pollution and Control (E6)	ENV 315060	3+1+0
7.	Industrial Safety and Toxicology (E7)	ENV 315071	3+1+0
		Total Credit	**16+04=20**

Semester VI

Sl. No.	Paper	Code	Credit (L+T+P)
1.	Instrumentation and Analytical Techniques	ENV 321010	3+1+0
2.	Environmental Agriculture Meteorology	ENV 321020	3+1+0
3.	Municipal Solid and Hazardous Waste Management	ENV 321030	3+1+0
4.	Water Resource Management	ENV 321040	3+1+0
5.	Agro-Meteorology and Analytical Methods Lab	ENV 322050	0+0+2
6.	Research/Industrial training & report Writing (One Month)	ENV 323060	0+0+2
		Total Credit	**20**

Semester VII

Sl. No.	Paper	Code	Credit (L+T+P)
1.	Environmental Laws & Legislation	ENV 411010	3+1+0
2.	Ecology	ENV 411020	3+1+0
3.	Environmental Management and Sustainable Development	ENV 411030	3+1+0
4.	Water Supply and Treatment	ENV 411040	3+1+0
5.	Ecology & Biodiversity Lab	ENV 412050	0+0+2
6.	Water Supply and Treatment Lab	ENV 412060	0+0+2
7.	Visit to Water Treatment Plants/Sewage	ENV 413070	0+0+2

Sl. No.		Code	Credit
	Treatment Plants		
		Total Credit	**22**

Semester VIII

Sl. No.	Paper	Code	Credit (L+T+P)
1.	Environmental Application of Microbiology and Biotechnology	ENV 421010	3+1+0
2.	Science of the Climate	ENV 421020	3+1+0
3.	Environmental Impact Assessment and Auditing	ENV 421030	3+1+0
4.	Basics of Remote Sensing	ENV 421040	3+1+0
5.	Remote Sensing and GIS Lab	ENV 422050	0+0+2
6.	Applied Microbiology and Biotechnology Lab	ENV 422060	0+0+2
		Total Credit	**20**

Semester IX (Any three electives)

Sl. No.	Paper	Code	Credit (L+T+P)
1.	Environmental Economics and Economics of Pollution Control	ENV 511010	3+1+0
2.	Environmental Modeling and Statistics	ENV 511020	3+1+0
3.	Restoration Ecology (E1)	ENV 516030	3+1+0
4.	Mining impacts on Environment (E2)	ENV 516040	3+1+0
5.	Climate Change, Clean Technology and Zero Pollution (E3)	ENV 516050	3+1+0
6.	Atmospheric Diffusion and Air Pollution Modelling (E4)	ENV 516060	3+1+0
		Total Credit	**08+12=20**

Semester X

Sl. No.	Paper	Code	Credit (L+T+P)
1.	Synopsis (submission and presentation)	ENV 524010	0+0+2
2.	Mid Term Evaluation (Report and Presentation)	ENV 524020	0+0+2
3.	Dissertation (both soft and hardcopy)	ENV 524030	0+0+12
4.	Seminar (PPT presentation)	ENV 524040	0+0+4
			20

Course Structure of
2 Years M. Sc. in Environmental Sciences

Semester I

Code	Paper	Credit (L+T+P)
ENV/M/411010	Ecology and Ecosystem	2+1+0
ENV/M/411020	Basics of Meteorology and Climatology	2+1+0
ENV/M/411030	Environmental Pollution and Monitoring	2+1+0
ENV/M/411040	Environmental Chemistry	2+1+0
ENV/M/411050	Environmental Laws and Legislation	2+1+0
ENV/M/412060	Ecology Lab & Field visit	0+0+2
ENV/M/412070	Environmental Chemistry Lab	0+0+2
	Total Credit:	**19**

Semester II

ENV/M/421010	Environmental Microbiology and Biotechnology	2+1+0
ENV/M/421020	Environmental Toxicology and Industrial Safety	2+1+0
ENV/M/421030	Instrumentation and Analytical Techniques	2+1+0
ENV/M/426040	Forestry and Wildlife management (Elective)	2+1+0
ENV/M/426050	Biodiversity Conservation (Elective)	2+1+0
ENV/M/426060	Aerosol and Environment (Elective)	2+1+0
ENV/M/426070	Air pollution monitoring and control (Elective)	2+1+0
ENV/M/426080	Renewable energy Resources (Elective)	2+1+0
ENV/M/426090	Water and Waste water treatment (Elective)	2+1+0
ENV/M/4220100	Toxicology Lab	0+0+2
ENV/M/4220110	Environmental Microbiology and Biotechnology Lab	0+0+2
	Total Credit:	**22**

Semester III

ENV/M/511010	Environmental Geology	2+1+0
ENV/M/511020	Environment Impact Assessment and Auditing	2+1+0
ENV/M/511030	Environmental Modelling and Statistics	2+1+0
ENV/M/511040	Fundamentals of Remote Sensing and GIS	2+1+0
ENV/M/516050	Carbon Sequestration and Agro-management (Elective)	2+1+0
ENV/M/516060	Restoration Ecology (Elective)	2+1+0
ENV/M/516070	Solid Waste Management (Elective)	2+1+0
ENV/M/516080	Land Surface processes and micro meteorology (Elective)	2+1+0
ENV/M/516090	Environmental Agriculture meteorology (Elective)	2+1+0
ENV/M/5160100	Soil Sciences (Elective)	2+1+0
ENV/M/5120110	Remote Sensing and GIS Lab	0+0+2
ENV/M/5130120	Field Visit	0+0+2
	Synopsis preparation for dissertation	
	Total Credit:	**22**

Semester IV

ENV/M/524010	Synopsis Presentation	0+0+4
ENV/M/524020	Mid Term Evaluation (Report and Presentation)	0+0+2
ENV/M/524030	Dissertation (Both soft and hardcopy)	0+0+10
ENV/M/524040	Seminar (PPT presentation)	0+0+4
	Total Credit:	**20**