

# CURRICULUM OF MASTERS' ACADEMIC PROGRAMMES

**REVISED (August, 2022)**



**School of Environment & Natural Resources  
(SENR)**



**Doon University  
Kedarpur, P.O- Ajabpur, Dehradun – 248001**



**Doon University, Dehradun**  
**School of Environment & Natural Resources (SENR)**  
**Revised course structure (August 2022)**

**M.Sc. Environmental Science**

**Course duration 4 semesters (maximum 6 semesters)**

**Minimum credit requirement (80 credits)**

Semester	Minimum Credit requirement			Field Study/Internship	Seminar	Thesis	Total Credits
	Core	Elective	General				
Semester-1 <sup>st</sup>	12	6	6	-	-	-	24
Semester-2 <sup>nd</sup>	20	6	-	-	-	-	26
Semester-3 <sup>rd</sup>	5	12	3			-	20
Semester-4 <sup>th</sup>	14		6	-	-		20
	<b>51</b>	<b>24</b>	<b>15</b>				<b>90</b>



**Doon University, Dehradun**  
**School of Environment & Natural Resources (SENR)**  
**Revised course structure (August 2022)**

**I. M. Sc. Environmental Science**

**FIRST SEMESTER**

**Total Credits: 24**

S.No	Course Type	Course code	Course Title	Credit	L-T-P
1	Core	EES-511	Ecology and Environment	4	2-1-1
2	Core	EES – 515	Environmental Pollution	4	2-1-1
4	Core	EES- 521	Earth Surface and its Processes	4	2-1-1
5	Elective	EES – 517	Environmental Chemistry	3	2-0-1
6	Elective	EES – 516	Environmental Impact Assessment	3	2-1-0
7	General	EGC – 571	Environmental Issues, Laws and Policies	3	2-1-0
8	General	EGC-596	Computational Methods in Environmental Science	3	2-1-0

**SECOND SEMESTER**

**Total Credits: 26**

S.No	Course Type	Course code	Course Title	Credit	L-T-P
1	Core	EES-513	Aquatic Environment	4	2-1-1
2	Core	EES – 627	Environmental Microbiology & Biotechnology	4	2-1-1
3	Core	EES – 514	Geomatics	4	2-1-1
4	Core	EES-520	Atmosphere, weather and Climate	4	3-1-0
5	Core	EES – 618	Analytical Techniques and Instrumentation	4	2-0-2
6	Elective	EES – 551:	Environment Waste Management	3	2-0-1
7	Elective	EES – 555:	Hazards, Risk Analysis and Management	3	2-1-0

**THIRD SEMESTER****Total credit: 20**

.No	Course Type	Course code	Course Title	Credit	L-T-P
1	Elective	EES-554	Statistics & Computer Applications	3	2-0-1
2	Elective	EES – 518	Environmental Toxicology	3	2-0-1
3	Elective	EES – 619	Green Technology	3	2-0-1
4	Elective		Optional From List of electives	3	2-0-1
5	Core	EES –635	Internship /Seminar	4+1	
6	General	EGC 556	IPR & Traditional Knowledge	3	2-1-0

**FOURTH SEMESTER****Total Credits: 20**

S.No	Course Type	Course Code	Course Title	Credit
1	Core	EES-690	Thesis/Dissertation	14
2	General	EGC-566	Environmental Economics	3
3	General	EGC- 576	Environmental Sociology	3

**List of Optional/Elective Courses to be offered in Third Semester:**

S.No	Course code	Course Title	Credit
1	ENR-559	Disaster Management	3
2	ETC-530	Solid & Hazardous Waste Management	3
3	EES- 615	Limnology & Chemical Speciation in Aquatic System	3
4	ETC-540	Air Pollution	3
5	EES- 530	Water Pollution	3
6	EES-625	Microbial Ecology	3
7	EES-570	Global climate change and its impacts	3
8	ENR-560	Soil science and Soil ecology	3
9	ENR-552	Trees outside forest	3
10	EES-559	Environmental Biochemistry and Biophysics	3
11	ETC-510	Water and Wastewater engineering	3
12	ENR-515	Integrated Watershed management	3
13	EES-612	Science of climate change	3
14	EES-614	Environmental Modeling	3
15	EES-590	Atmospheric Modelling	3
16	ENR-555	Biological Resources Management	3

Courses with astrix( \*) will be offered on the availability of faculty



**Doon University, Dehradun**  
**School of Environment & Natural Resources (SENR)**  
**Revised course structure (August 2022)**

**M.Sc. Environmental Science (Natural Resource Management)**

**Course duration 4 semesters (maximum 6 semesters)**

**Minimum credit requirement (80 credits)**

Semester	Minimum Credit requirement			Field Study/Internship	Seminar	Thesis	Total Credits
	Core	Elective	General				
Semester-1	12	06	06				24
Semester-2	20	06	-				26
Semester-3	05	15	03				23
Semester-4	14		06				20
	<b>51</b>	<b>27</b>	<b>15</b>				<b>93</b>



**Doon University, Dehradun**  
**School of Environment & Natural Resources (SENR)**  
**Revised course structure (August 2022)**

**M. Sc. Environmental Science (Natural Resource Management)**

**FIRST SEMESTER**

**Total Credits: 24**

S. No	Course Type	Course code	Course Title	Credit	L-T-P
1	Core	ENR- 513	Fundamentals of Natural Resources Management	4	3-1-0
2	Core	ENR – 514	Forest Ecosystem and Management	4	2-1-1
3	Core	EES –521	Earth Surface and its Processes	4	3-1-0
5	Elective	ENR – 557:	Himalayan Ecosystem and People	3	2-1-0
6	Elective	EES – 516:	Environmental Impact Assessment	3	2-1-0
7	General	EGC – 571	Environmental Issues, Laws, and Policies	3	2-1-0
8	General	EGC-596	Computational Methods in Environmental Science (EVS/NRM)	3	2-0-1

**SECOND SEMESTER**

**Total Credits: 26**

S. No	Course Type	Course code	Course Title	Credit	L-T-P
1	Core	ENR-511	Water Resources and their Management	4	3-1-0
2	Core	ENR- 516	Biodiversity Assessment and Conservation	4	2-1-1
3	Core	EES- 618	Analytical Techniques and Instrumentation	4	2-0-2
4	Core	EES-514	Geomatics	4	3-1-0
5	Core	EES – 520:	Atmosphere, Weather and Climate	4	3-1-0
6	Elective	EES-515	Hazards, Risks Analysis and Management	3	2-1-0
7	Elective	ENR- 558	Wildlife Management and Ecotourism	3	2-1-0

**THIRD SEMESTER****Total Credits: 23**

S.No	Course Type	Course code	Course Title	Credit	L-T-P
1	Elective	ENR – 512:	Energy Resources and Their Management	3	2-1-0
2	Elective	EES- 554	Statistics & Computer Applications	3	2-0-1
3	Elective	EES – 619	Green Technology	3	2-0-1
4	Elective	ENR-553	Restoration Ecology	3	2-0-1
5	Elective		Optional From List of electives	3	
6	General	EGC-556	IPR Traditional Knowledge	3	2-1-0
7	Core	EES –635	Internship /Seminar	4+1	

**FOURTH SEMESTER****Total Credits: 20**

S.No	Course Type	Course code	Course Title	Credits
1	Core	EES-690	DISSERTATION	14
2	General	EGC- 566	Environmental Economics	3
3	General	EGC- 576	Environmental Sociology	3

**List of Optional/Elective Courses to be offered in Third Semester:**

S.No	Course code	Course Title	Credit
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2	ETC-530	Solid & Hazardous Waste Management	3
3	EES- 615	Limnology & Chemical Speciation in Aquatic System	3
4	ETC-540	Air Pollution	3
5	EES- 530	Water Pollution	3
6	EES-625	Microbial Ecology	3
7	EES-570	Global climate change and its impacts	3
8	ENR-560	Soil science and Soil ecology	3
9	ENR-552	Trees outside forest	3
10	EES-559	Environmental Biochemistry and Biophysics	3
11	ETC-510	Water and Wastewater engineering	3
12	ENR-515	Integrated Watershed management	3
13	EES-612	Science of climate change	3
14	EES-614	Environmental Modeling	3
15	EES-590	Atmospheric Modelling	3
16	ENR-555	Biological Resources Management	3

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