

AMITY SCHOOL OF EARTH & ENVIRONMENT SCIENCES

FLEXILEARN

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PROGRAMME STRUCTURES

2018

AMITY UNIVERSITY HARYANA

GURGAON

B.Sc. (Honors) Earth Sciences (Total Credits-150)

Programme Structure-2018

FIRST SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credit
ESC2101	Basics of Earth System Sciences	3	-	-	3
ESC2102	Earth Surface Features & Processes	3	-	-	3
ESC2103	Physics for Earth Sciences-I	2	-	-	2
ESC2104	Chemistry for Earth Sciences-I	2	-	-	2
ESC2105	Mathematics-I	2	-	-	2
ESC2106	Biology for Earth Sciences	2	-	-	2
ESC2107	Chemistry Laboratory	-	-	2	1
ESC2108	Field Survey-I	-	-	-	2
Open Electives					*7+3
LAN2151	Foreign Language-I*	3	-	-	3
LAN2152	French-I				
LAN2153	German-I				
LAN2154	Spanish-I				
LAN2155	Russian-I				
LAN2156	Chinese-I				
LAN2157	Portuguese-I				
LAN2158	Korean-I				
LAN2159	Japanese-I				
LAN2159	Hindi-I **				
CSS2151	Effective Listening *	1	-	-	1
BEH2151	Understanding Self for Effectiveness*	1	-	-	1
ENV2151	Environmental Studies-I*	2	-	-	2
	Minor Track Course (Flexi)	-	-	-	3
TOTAL					27

** Hindi as Foreign Language for Foreign National Students

SECOND SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credit
ESC2201	Crystallography & Mineralogy	3	-	-	3
ESC2204	Physics for Earth Sciences-II	2	-	-	2

ESC2205	Chemistry for Earth Sciences-II	2	-	-	2
ESC2206	Mathematics-II	2	-	-	2
ESC2210	Structural Geology	3	-	-	3
ESC2208	Earth Science Laboratory-I	-	-	4	2
ESC2209	Field Survey-II	-	-	-	2
Open Electives					*7+3
LAN2251	Foreign Language-II*	3	-	-	3
LAN2252	French-II				
LAN2253	German-II				
LAN2254	Spanish-II				
LAN2255	Russian-II				
LAN2256	Chinese-II				
LAN2257	Portuguese-II				
LAN2258	Korean-II				
LAN2259	Japanese-II				
LAN2259	Hindi-II				
CSS2251	Presentation Skills *	1	-	-	1
BEH2251	Problem solving and creative Thinking*	1	-	-	1
ENV2251	Environmental Studies-II*	2	-	-	2
	Minor Track Course (Flexi)	-	-	-	3
TOTAL					26

SUMMER PROJECT- I

SUMMER PROJECT/INTERNSHIP (DURING SUMMER BREAK: Summer Internship will be held at the end of 2nd Semester (4-6 weeks), evaluation will be done in the 3rd Semester and credits will be added in the 3rd Semester.)

THIRD SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credit
ESC2301	Igneous Petrology	3	-	-	3
ESC2302	Sedimentology	2	-	-	2
ESC2303	Metamorphic Petrology	2	-	-	2
ESC2304	Atmospheric Science	2	-	-	2
ESC2309	Marine Science	2	-	-	2
ESC2307	Earth Science Laboratory-II	-	-	4	2
ESC2308	Field Survey-III	-	-	-	3
ESC2335	Summer Project Evaluation-I	-	-	-	3
Open Electives					*4+3

LAN2351	Foreign Language-III*	2	-	-	2
LAN2352	French-III				
LAN2353	German-III				
LAN2354	Spanish-III				
LAN2355	Russian-III				
LAN2356	Chinese-III				
LAN2357	Portuguese-III				
LAN2358	Korean-III				
LAN2359	Japanese-III				
LAN2359	Hindi-III				
CSS2351	Reading & Comprehension *	1	-	-	1
BEH2351	Group Dynamics and Team Building*	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				26

FOURTH SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credit
ESC2405	Economic Geology	2	-	-	2
ESC2406	Geochemistry	3	-	-	3
ESC2410	Remote Sensing & GIS	2	-	-	2
ESC2411	Hydrogeology	2	-	-	2
ESC2412	Geophysics	2	-	-	2
ESC2408	Earth Science Laboratory-III	-	-	4	2
ESC2409	Field Survey-IV	-	-	-	3
	Open Electives				*4+3
LAN2451	Foreign Language-IV*	2	-	-	2
LAN2452	French-IV				
LAN2453	German-IV				
LAN2454	Spanish-IV				
LAN2455	Russian-IV				
LAN2456	Chinese-IV				
LAN2457	Portuguese-IV				
LAN2458	Korean-IV				
LAN2459	Japanese-IV				
LAN2459	Hindi-IV				
CSS2451	Corporate Communication*	1	-	-	1
BEH2451	Stress and Coping Strategies	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				23

SUMMER PROJECT-II (8 WEEKS)

SUMMER PROJECT/INTERNSHIP (DURING SUMMER BREAK: Summer Internship will be held at the end of 4th Semester (4-6 weeks), evaluation will be done in the 5th Semester and credits will be added in the 5th Semester.)

FIFTH SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credit
ESC2503	Exploration Geology	2	-	-	2
ESC2505	Paleontology	2	-	-	2
ESC2509	Stratigraphy of India	3	-	-	3
ESC2510	Engineering Geology	2	-	-	2
ESC2507	Earth Science Laboratory-IV	-	-	4	2
ESC2508	Field Survey-V	-	-	-	3
ESC2535	Summer Project Evaluation-II	-	-	-	6
	Open Electives				*4+3
LAN2551	Foreign Language-V*	2	-	-	2
LAN2552	French-V				
LAN2553	German-V				
LAN2554	Spanish-V				
LAN2555	Russian-V				
LAN2556	Chinese-V				
LAN2557	Portuguese-V				
LAN2558	Korean-V				
LAN2559	Japanese-V				
LAN2559	Hindi-V				
CSS2551	Employability Skills *	1	-	-	1
BEH2551	Individual ,Society and Nations	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				27

SIXTH SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical (P) Hours Per Week	Total Credit
ESC2603	Coal and Petroleum Geology	3	-	-	3
ESC2604	Hazard Assessment & Risk Management	3	-	-	3
ESC2633	Workshop / Seminar / Conference/ Symposium	-	-	-	1
ESC2637	Dissertation	-	-	-	9

	Open Electives				*2+3
CSS2651	Workplace Communication	1	-	-	1
BEH2651	Interpersonal Communication and Relationship Management	1	-	-	1
	Minor Track Course (Flexi)	-	-	-	3
	TOTAL				21

M.Sc. Environmental Sciences & Management (Total Credit-100)

Programme Structure-2018

FIRST SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical/Field work (P) Hours Per Week	Total Credit
ENV4101	Ecology and Ecosystem Dynamics	3	-	-	3
ENV4102	Earth System Sciences	3	-	-	3
ENV4103	Environmental Biology	2	-	-	2
ENV4109	Chemistry of Environment	3	-	-	3
ENV4110	Environmental Physics & Energy	3	-	-	3
ENV4111	Basic Mathematics	2	-	-	2
ENV4107	Analytical Laboratory-I	-	-	6	3
ENV4131	Term Paper/Seminar	-	-	-	1
Open Electives					5
CSS4151	Basics of Communication	1	-	-	1
BEH4151	Self-Development and Interpersonal Skills	1	-	-	1
LAN4151 LAN4152 LAN4153 LAN4154 LAN4155 LAN4156 LAN4157 LAN4158 LAN4159	Foreign Business Language French-I German-I Spanish-I Russian-I Chinese-I Portuguese-I Korean-I Japanese-I Hindi-I **	3	-	-	3
TOTAL					25

** Hindi as Foreign Language for Foreign National Students

SECOND SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical/Field work (P) Hours Per Week	Total Credit
ENV4201	Pollution Control and Management	3	-	-	3
ENV4204	Environmental Analysis: Tools and Techniques	3	-	-	3
ENV4209	Atmospheric Science & Climate Change	3	-	-	3
ENV4210	Geoinformatics for Environmental Management	3	-	-	3
ENV4211	Statistical Tools and Research Methodology	2	-	-	2
ENV4212	Analytical Laboratory-II	-	-	6	3
ENV4231	Term Paper/Seminar	-	-	-	1
ENV4232	Project (Field Survey)	-	-	-	2
	Open Electives				5
CSS4251	Corporate Communication	1	-	-	1
BEH4251	Behavioral Communication and Relationship Management	1	-	-	1
LAN4251	Foreign Business Language French-II	3	-	-	3
LAN4252	German-II				
LAN4253	Spanish-II				
LAN4254	Russian-II				
LAN4255	Chinese-II				
LAN4256	Portuguese-II				
LAN4257	Korean-II				
LAN4258	Japanese-II				
LAN4259	Hindi-II				
	TOTAL				25

SUMMER INTERNSHIP (DURING SUMMER BREAK): Summer Internship will be held at the end of 2nd Semester (4-6 weeks), evaluation will be done in the 3rd Semester and credits will be added in the 3rd Semester.)

THIRD SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical/ Field work (P) Hours Per Week	Total Credit
ENV4301	Environmental Conservation and Sustainable Development	3	-	-	3
ENV4313	Water Resources Management	3	-	-	3
ENV4314	Eco-toxicology, Health and Safety	3	-	-	3
ENV4315	Waste Management & Valorization	2	-	-	2
ENV4316	Analytical Laboratory -III	-	-	6	3
ENV4317	Environmental Economics	2	-	-	2
ENV4331	Term Paper/Seminar (Research Article)	-	-	-	1
ENV4335	Summer Internship Evaluation + Project Formulation	-	-	-	6
	Concentration Electives (Any One)				3
ENV4309	Environmental Biotechnology	3	-	-	3
ENV4310	Environmental Geology	3	-	-	3
ENV4311	Green Energy	3	-	-	3
ENV4312	Waste Water Treatment	3	-	-	3
	Open Electives				4
CSS4351	Interpersonal Communication	1	-	-	1
BEH4351	Leading Through Teams	1	-	-	1
LAN4351 LAN4352 LAN4353 LAN4354 LAN4355 LAN4356 LAN4357 LAN4358 LAN4359	Foreign Business Language French-III German-III Spanish-III Russian-III Chinese-III Portuguese-III Korean-III Japanese-III Hindi-III	2	-	-	2
	TOTAL				30

FOURTH SEMESTER

Course Code	Course Title	Lectures (L) Hours Per Week	Tutorial (T) Hours Per Week	Practical/ Field work (P) Hours Per Week	Total Credit
ENV4401	Environmental Law and Environmental Impact Assessment	3	-	-	3
ENV4402	Urban Ecosystem and Industrial Ecology	2	-	-	2
ENV4403	Natural Hazards and Disaster Management	2	-	-	2
ENV4431	Term Paper/Seminar (Research Article)	-	-	-	1
ENV4437	Research based Project work**	-	-	-	12
	TOTAL				20

**Student will be sent to laboratories at universities, national institute and industries for their project based research work during 4th semester. At the end of 4th semester student will be evaluated on the basis of dissertation followed by presentation of their research work.