

Central University of Himachal Pradesh

(ESTABLISHED UNDER CENTRAL UNIVERSITIES ACT 2009)
Dharamshala, Himachal Pradesh-176215



NAAC Criterion-I

Key Indicator – 1.2.2

Structure of the program clearly indicting the course as approved by competent Board of studies

1.2.2 Evidences



Central University of Himachal Pradesh, Dharamshala, Kangra

Structure of the M.Sc. Environmental Science Program

clearly indicating the courses, credits/Electives as approved by the BoS of Dept. Env. Sc.

S.No.	Academic Session	Page No.
1.	2016-17	2
2.	2017-18	3
3.	2019-20	4
4.	2020-21	5
5.	2021-22	6



2016-2017

7	Cradite	Curricular Framework" for M.Sc. in Environmen	Credits	Credits	Core- O	pen	Credits
Semester	Creuns	ENV 402a - Introduction to Earth Processes	2				-
100	1	ENV 403 - Environmental Chemistry	4				-
- N		ENV 434 - Fundamentals of Ecology and Environment	4				-
N	16	ENV 516 - Atmospheric Science	2				-
(2)		ENV 435 - Environmental Sciences Laboratory - I	2				-
		ENV 404 - Energy and Environment	2	0.0			-
		ENV 408 - Biodiversity and Wild Life Management	2		ENV 523	- Toxic and Hazardous Waste Management	4
- //		ENV 432 - Introduction to Statistical Techniques	4		ENV 569	- Environmental Pollution and Health issues	4
6	Marie 1	ENV 424 - Fundamentals of Remote Sensing	2		ENV 535	- Natural Hazards	2
- III	12	ENV 422- Basics of Natural Resource Conservation	2	4	ENV 525 - Environmental Geochemistry		2
5)		ENV 436 - Environmental Sciences Laboratory - II	2	ĺ	ENV 553 - Environmental Thermodynamics		2
					ENV 503	3 - Environmental Legislation: National & International	2
	4	ENV 524 - Environmental Impact Assessment	2		ENV 508	3 - Environmental Ethics	2
		ENV 571 - Remote Sensing and GIS Lab	2	1	ENV 572 - Land Use Planning		2
ш				4	ENV 573	3 – Water Resource Management	2
						Renewable and Non renewable Energy potential in HP State	2
						7 - Bio-resources and Environmental Biotechnology	4
		ENV 575 - M.Sc. Dissertation	6		-	7 - Environmental Engineering	2
		ENV 412- Analytical Technique	2		ENV 421	- Municipal Solid Waste Management	2
ıv	8			1 4	ENV 428	8 – Himalayan Geology	2
				1	ENV 574	4 - Bio Analytical Techniques	4
- 1					ENV 561	I - Science of Climate Change	2
Semester	Credits	Elective (Specialization)	Credits	Semester	Credits	Elective (Specialization)	Cred
Semester	Credita		T .			ENV 521 – Geo Engineering	2
		ENV 559 - Environmental Geophysics	2	-		ENV 577 - Carbon Management	2
ш	8	ENV 411 - Waste Management	2	lv	8	ENV 409 – Environmental Microbiology	2
2200	100	ENV 550 - Microbial Ecology	2			ENV 405 - Environmental inicioniology	
		ENV 611 – Atmospheric Chemistry	2			ENV 613 – Atmospheric Physics	2
		ENV 410 - Environmental Biotechnology	2	-		ENV 579 - Recent Trends in Environmental Biotechnology	2
		ENV 578- Introduction to Glaciology	2			ENV 580 - Recent Trends in Glaciology	2
		ENV 530 Green Chemistry and Environment	2	1		EVN 555 Emerging Ethical Issues for Nanotechnology in Environment	2

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E	dits	Core	- Compulsory	Credits	Credits	sed on Choice Based Credit System (CBCS) (wef-20.06.18): (ANICOTE-Open and Elective-Open					
F		ENV	402a – Introduction to Earth Processes	2	5			Cred			
		ENV 403 - Environmental Chemistry		4				1			
6			434 - Fundamentals of Ecology and Environment	4				+			
	16		V 516 - Atmospheric Science	2			· · · · · · · · · · · · · · · · · · ·	-			
			V 435 - Environmental Sciences Laboratory – I	2	1		三	+			
		_		2			Mark Bally	+			
			V 404 - Energy and Environment	2		ENV 523	- Toxic and Hazardous Waste Management	+			
u			IV 408 - Biodiversity and Wild Life Management	_	1		- Environmental Pollution and Health issues	4			
			VV 432 - Introduction to Statistical Techniques	4	4	ENV 535 - Natural Hazards					
	12		NV 424 – Fundamentals of Remote Sensing	2		ENV 553 - Environmental Thermodynamics		2			
			NV 422- Basics of Natural Resource Conservation	2		ENV 503 - Environmental Legislation: National & International		2			
		E	NV 436 - Environmental Sciences Laboratory – II	2		ENV 503	ENV 503 – Environmental Ethics				
ııı		E	NV 524 - Environmental Impact Assessment	2			52 – Contemporary Environmental Issues				
	1	E	NV 571 - Remote Sensing and GIS Lab	2	4 1		- Water Resource Management	2			
	4				4+4		- Water Resource Management - Environmental Engineering	2			
·					1 1 1 1 1 1			2			
					1		- Disaster Management - Methods in Scientific Research	2			
						ENV 421 – Municipal Solid Waste Management					
		1	ENV 575 – M.Sc. Dissertation	6	-	ENV 421 - Municipal Solid Visite Management		2			
	1	1	ENV 412- Analytical Technique	2	-	The second secon		2			
IV	1 3	8		-	4+4	ENV 574 - Bio Analytical Techniques ENV 561 – Science of Climate Change		4			
						ENV 546 - Renewable and Non renewable Energy potential in HP State					
	-				-						
emeste	r Cre	dits	Elective (Specialization)	Credit	Semester	Credits	ENV 521 – Geo Engineering	Credits			
	1		ENV 559 - Environmental Geophysics	2			ENV 577 - Carbon Management	2			
ш		8	ENV 614 - Advanced Waste Management Techniques	1			ENV 616 – Advanced Microbial Technologies	2			
			ENV 550 – Microbial Ecology ENV 611 – Atmospheric Chemistry	2 2	- IV	8	ENV 613 – Atmospheric Physics				
			ENV 611 – Atmospheric Chemistry ENV 615 – Advanced Bioremediation Techniques	2	-	1		2			
			ENV 578- Introduction to Glaciology	2	-		ENV 579 - Recent Trends in Environmental Biotechnology ENV 580 - Recent Trends in Glaciology	2			
			ENV 530 Green Chemistry and Environment	2	1		EVN 555 - Emerging Ethical Issues for Nanotechnology in Environment	2			
* New	cones	es to	be introduced; course codes will be allotted according			-	Land 355 - Emerging Ethical issues for Manotechnology in Environment	2			

		ular Framework for Department of Environme				1 Canalli	System (CBCS) (¥851-2846)	Credits	Faculty
TABLE-1	: Currie	ulan re	aral Science	es based or	n Choice B	ased Crean	Core-Open/Elective-Open	Create	6
Semester	Credie	and Framework for Department of Environme	Credita	Faculty	Credits				
			2	AL	_				
(≥)	1	ENV 402a - Introduction to Earth Processes		DUS+SC	1				
∞ ⁄	16	ENV 403 - Environmental Chemistry	4						8
		ENV 434 - Fundamentals of Ecology and Environment	4	MA	-				6
	1	ENV 560 - Meteorology & Climatology	4	AT				2	AL
	_	435 - Environmental Sci	2	All			4 Favironment		AL
	l	thoughterity and with the	2	MA		ENV 404 - En	ergy and Environment	2	
li l	1	The state Management		sc	1		tural Hazards	2	DBS
- 1	12	ENV 432 - Interest	2		ŀ	ENV 422- Ba	sics of Natural Resource Conservation		
- 1		ENV 501 - Environmental Pollution and Human	4	AT	4	MITT THE DE			
-	_	ENV 436 - Envis	2	sc					
- 1		ENV 436 - Environmental Sciences Laboratory - II	2	All				2	AL
···	6	ENV 424 - Fundamental Sciences Laboratory - II ENV 524 - Environ	2	AL		ENV 573 - V	Vater Resource Management	2	sc
- 1			2	DBS			Latinal Tachnique	2	DBS
		ENV S71 - Remote Sensing and GIS Lab			4+2	ENV 503-E	nvironmental Legislations: National Inc.	2	sc
. 1			2	AL			International ENV 547- Contemporary Environmental Issues		
IV	6	ENV 575 - M.Sc. Dissertation				ENV 547- Contemporary Environmental Engineering		2	AT
	- 1		6	All				2	AKM
	-				4+2		Disaster Management	2	AL
ester Cr	edits				4-2	ENV 583 -	Soil Science	2	AKM
		Elective (Specialization)			7	ENV 428 -	Himalayan Geology	Credits	Faculty
- 1	1	Elective (Specialization) ENV 564 - Near Surface Geophysics	Credits	Faculty	Semester	Credits	Elective (Specialization)	4	MA
1 8			4		IV		ENV 585* - Fundamentals of Basics & Applied		
	Bi	NV 557- Bio-resources and Environmental		AKM			Environmental Microbiology ENV 509 - Glaciology	4	AL
			4		-		ENV 586* - Nano-Techniques and Applications in	4	DBS
1	E	NV 582* – Atmospheric Chemistry and Physics	-	sc		8		1 .	
1 -		Chemistry and Physics	4	AT		1	Environment	1	
tester Cre	dits	Human Making and Skill Development Courses	Credits	_	_			-	ts Faculty
1000	/ E	NV 443 - Basics of Climate Change (HM)		Faculty		r Credits	Human Making and Skill Development Courses		SC
, /-	4		2 `	AT	11		ENV 508 - Environmental Ethics	2	30
	1	ENV 553 - Environmental Thermodynamics (SD)	2	DBS		. 4	ENV 441 - Water Resource Conservation in Hilly	2	AL
7	manused.	in the 8th meeting of BoS.		TXI.		- A	Region		. 5/8/
	A CAMPAINT	M. M. GT(06/2019) Ay		\U\\\	How	Charles Charles	97 97 642 C	Monday	MI KUN
				- \		d.	mil.		. 110

TABLE-I: Curricular Framework for Department of Environmental Sciences based on Choice Based Credit System (CBCS) (Year 2020)

iemester	Credits	Core- Compulsory	Credits	Faculty	Credits	Core-C	Open/Elective-Open	Credits	Facult
	16	ENV 401 - Introduction to Ecology	2	PT*		Billia			
	100	ENV 402a - Introduction to Earth Processes	2	4L	7	MALLE		理 唐城	
		ENV 403 - Environmental Chemistry	1	DBS	1	OF THE PERSON		SI PROPERTY.	
		ENV 501 - Environmental Pollution and Human	2	SC		9500			MATE AND DESCRIPTION OF THE PARTY OF THE PAR
		ENV 560 - Meteorology and Climatology	1	AT				5 613	原屋 建設
		ENV 444** - Environmental Geo Science Laboratory	2	AKM					
I	12	ENV 411 - Waste Management	2	SC	4	ENV 42	28- Himlayan Geology	2	AKM
		ENV 422 - Basics of Natural Resource Conservation	2	DBS		ENV 40	04 - Energy and Environment	2	AL
		ENV 424 - Fundamentals of Remote Sensing	2	AL	7	ENV 40	98 - Biodiversity and Wild Life Management	2	SC
		ENV 432 - Introduction to Statistical Techniques	4	AT				100	
		ENV 445** Environmental Chemistry Laboratory	2	PT*	7	EE 1/1/2			
II	6	ENV 524 - Environmental Impact Assessment	2	DBS	4+2	ENV 41	2- Analytical Technique	2	SC
		ENV 536- Disaster Management	2	AKM		ENV 50 Internat	3-Environmental Legislations: National and tional	2	DBS
		ENV 551 - Remote Sensing and GIS Lab	2	4L		ENV 57	3 - Water Resource Management	2	AL.
V.	6	ENV 575 - M.Sc. Dissertation	6	All		ENV 53	7 – Environmental Engineering	2	AT
	1					ENV 54	7- Contemporary Environmental Issues	2	SC
	80					ENV 58.	3 - Soil Science	2	PT*
emester	Credits	Elective (Specialization)	Credits	Faculty	Semester	Credits	Elective (Specialization)	Credits	Faculty
I	8	ENV 587*-Regional (Indian) Environmental	đ	PT	IV	8	ENV 564 - Near Surface Geophysics	4	AKM
		Policies ENV 582* - Atmospheric Chemistry and Physics	4	4T			ENV 509 - Glaciology	4	AL
		ENV 555- Bio-resources and Environmental Biotechnology	4	SC			ENV 586* - Nano-Techniques and Applications in Environment	1	DBS
emester	Credits	Human Making and Skill Development Courses	Credits	Faculty	Semester	Credits	Human Making and Skill Development Courses	Credits	Faculty
		ENV 508 - Environmental Ethics (HM)	2	SC	П		ENV 443 - Basics of Climate Change (HM)	2	4T
		ENV 441 - Water Resource Conservation in Hilly Region (SD)	2	AL			ENV 553 - Environmental Thermodynamics (SD)	2	DBS

^{**} Course to be introduced: [Credit distribution: AT-22: AL-22: SC-22: DBS-22: PT-16: AKM-14

Department of Environmental Sciences

Curricular Framework for based on Choice Based Credit System (CBCS) (Year 2021-22-NEP)

Semester	Credits	Core- Compulsory	Credita	Faculty	Credits		DC	Credits	Faculty
		ENV 402a - Introduction to Earth Processes	2	AL					
l		ENV 403 - Environmental Chemistry	4	DBS+DP					
1	1 1	RNV 501 - Environmental Pollution and Human Health	2	SC]				
1	I 12	ENV 516 - Atmospheric Science	2	AT	1				
		ENV 444 - Environmental Geo Science Laboratory	2	AKM	1				
			+	-	1			_	
		ENV 401 - Introduction to Ecology	2	SC		ENV 428	- Himalayan Geology	2	AKM
l		ENV 424 - Fundamentals of Remote Sensing		AL.		ENV 443	3 - Basics of Climate Change	2	AT
ш	8	ENV 432a - Basics of Statistical Techniques	2	AT	4	ENV 404	- Energy and Environment	2	AL
		ENV 445- Environmental Chemistry Laboratory	2	DBS]		5- Biodiversity and wild life management	2	9C
							8 – Ecology Lab		
		RNV 551 - Remote Sensing and GIS Lab	2	AL.		ENV 553	-Envrionmental Thermodynamics	2	DBS
l		ENV 412- Analytical Technique	2	5C		ENV535	- Natural Hazard	2	AL
l		RNV 531 - Tozicology Laboratory	2	DP+SC		ENV 503	Environmental Legislations: National and International	2	DBS
ш	6				- 6	ENV XX	X – Environmental Data Analysis Laboratory	2	AT
			+-	\vdash	-			-	-
			+		1			_	-
							- Disaster Management	2	AKM
IA	6	ENV 575 - M.Sc. Dissertation	6	A/II	6	ENV 573	9 – Wafer Resource Management	2	AL
		BAY 5/5 - M.Sc. Dissertation		1		ENV 547	7- Contemporary Environmental Issues	2	DBS
						ENV 577	7- Carbon management	2	DP
Semester	Credits	Elective (Specialization)	Credits	Faculty	Semester	Credits	Elective (Specialization)	Credits	Faculty
		ENV 582 - Atmospheric Chemistry and Physics	4	AT			ENV 509 - Glaciology	4	AL
l	1 1	RNV 586 - Nano-Techniques and Applications in Environment	4	DBS	1		ENV 588- Advanced Environmental Technology		DBS
ш	8	ENV 564 - Near Surface Geophysics	4	AKM	1 rv	8	ENV 561-Science of Climate Change	4	AT
1	1 1	ENV 431- Environmental Data Analysis	4	AT	1		ENV 610-Applied Biotechnology and Bioremediation	4	SC
l	1 1	RNV 557- Bio resources and Environmental Biotechnology	4	SC	1		ENV 589* Climatology	4	AT
l	1 1	ENV 574-Bio-Analystical Technique	alystical Technique 4		1		ENV xxx- Chemistry of toxicity and detoxification	4	DP
		** Glacial Remote Sensing	4	AL					
Semester	Credits	IKS & VS	Credits	Faculty	Semester	Credite	TKS & VS	Credits	Faculty
	Licuity	RNV 508a - Indiau Tradition and Environmental Ethics (IKS)	2	SC	- Constant	Ci cany	ENV 438a - Environment and Society in Indian Perspective (IKS)	2	SC
		ENV 441 - Water Resource Conservation in Hilly Region (IKS)	2	AL	1		ENV 539 - Indigenous Traditional Knowledge & Environmental	2	DBS
1					1 11		Conservation (IKS)	 	
-		ENV 411 - Waste Management (VS)	2	DP	- 1		ENV 524- Environmental impact Assessment (VS)	2	DBS
		ENV 537 – Environmental Engineering (VS)	2	AT			ENV447* - Computational Statistical Analysis Laboratory (VS Lab)	2	AT

