List of courses integrates cross cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum

Values	Program Name	Year	Course Code	Course Name	Course Objectives
Environment & Sustainability	All First Year BCA and BBA	2020-2021	BCA Env	Environmental Studies	To create awareness, acquire knowledge so that students manage their society properly inculcate skills for identifying problems associated with environment and develop ability to evaluate participate in environmental protection activities that is helpful to all living things.
Professional Ethics	BCA	2020-21	BCA 101	Foundation Course for managers	• To study the fundamental Accounting concepts, terms, jargons and learn the process of recording of financial transactions in the books of Accounts. • To develop the foundation for higher studies in the field of accounting.
			BCA 202	Professional Communication	To impart the basic communication skills among students.
			BCA 205	Practical on Professional Communication	To impart basic communication skills among students
		2021-2022	BCA 401	Introduction to Information System Audit	To impart the knowledge and importance of Information System and Audit among Students for Quality Management.
		2022-2023	BCA 501	Entrepreneurship Development	To impart the knowledge of Entrepreneurship Development among students.
			BCA 502	Cyber Security	To impart the knowledge of Cybercrime and cyber security among students.
			BCA 504	Software Engineering	To impart knowledge of software life cycle. Taught security and ethical concern to students.
			BCA 507	Field work on IT Project Assessment	To understand the issues in implemented It project by assessing it using research methodology.
			BCA 606	Practical on Employability Skills	To practically train students in developing required employability skills.
			BCA 607	Project Report & Viva	To prepare students to use applications of the theory and practical learned during the course.

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	BBA	2020-2021	A1.3	Professional Communication	• To impart the basic communication skills among students. • To improve the English Language Proficiency of the Students. • To develop confidence in Speaking English.
			A2.3	Business Ethics and Corporate Governance	The objective of this subject is to make the students more clear about the importance of ethics in business and practices of good corporate governance.
		2021-2022	A4.3	Human Resource Management	The course aims to provide inputs to the students regarding importance of HRM and its concepts, principles and various functions
		2022-2023	A5.2	Entrepreneurship Development	To make the student understand the concept & importance of Entrepreneurship and facilitate generation of young entrepreneurs
			A6.6	Practical's on Employability Skills-II	To make a students capable of obtaining jobs.
			A6.7	Project Report	• To enhance analytical skills of students and to depict thorough knowledge of the domain subject and develop decision making abilities through study of various types of issues that need to be addressed, evaluating strategic alternatives and formulating remedial plans of action as recommendations. • To Increase the understanding of what managers should and should not do in guiding a business to success
	Master of Management Studies(CM)	2018-2019	1.1	Principles of Management	To acquaint the students with the basic Business Management concept & process
			1.6	Lab 1-Practical on Tally ERP & Web Designing	To acquaint students use of tally software and aware them technically concept of web designing.
			2.1	Communication Skills	• To develop personality of student in the micro perspective. • to provide employability skills for students • To impart knowledge of process of interview Techniques& Group discussion among student.

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			3.1	CRM & Digital Marketing	To aware the students with the concepts of customer relationship management and digital marketing.
		2019-2020	3.2	Cyber Security and IT Act	• To introduce the student with information security, security threats and control. • To study and understand the basic concepts of cryptography, network security and cyber laws
			4.1	Human Resource Management	• To understand importance of Human Resource Management. • To provide essential knowledge of important function of HRM. • To get acquainted about latest trends & practices of HRM
			4.5	Project Report & Viva	To prepare students to use applications of the theory and practical learned during the course.
		2021-2022	AC201	Soft Skills	To make students well conversant in soft skills
Human Values	Master of Management Studies(CM)	2019-2020	4.1	Human Resource Management	• To understand importance of Human Resource Management. • To provide essential knowledge of important function of HRM. To get acquainted about latest trends & practices of HRM
	BBA	2021-2022	A4.3	Human Resource Management	The course aims to provide inputs to the students regarding importance of HRM and its concepts, principles and various functions

NORTH MAHARASHTRA UNIVERSITY, JALGAON

'A' Grade NAAC Re-Accredited (3rd Cycle)

Faculty of Science and Technology
Syllabus

BACHELOR IN COMPUTER APPLICATION (BCA)

With effect from June- 2017-18

NORTH MAHARASHTRA UNIVERSITY, JALGAON
BACHELOR IN COMPUTER APPLICATION STRUCTURE
(W.E.F. June 2017)

Course Name: Bachelor in Computer Application

Short Title of Degree: B C A

Faculty to which assigned: Science and Technology

Duration: 3 years full time

Pattern: Semester

Examination Pattern: 60 (External) + 40 (Internal)

No of paper per semester: 4 Theory + 3 Practical

Eligibility: Passed Higher Secondary Examination in Any Stream

OR

Diploma recognized by Board of Technical Education with minimum Duration of 3 years

Medium of Instruction: English

Objectives:

- BCA COURSE strives to create outstanding computer professionals with ethical and human values to reshape the nation's destiny. This programme aims to prepare young minds for the challenging opportunities in the IT industry, nourished and supported by experts in the fields.
- The BCA Course aims at inculcating essential skills as demanded by the global software industry through interactive learning process. This also includes team-building skills, audio- visual presentations and personality development programmes.
- The programme enhances analytical, managerial and communication skill besides inculcating the virtues of self-study. The Curriculum has been designed to cater to the ever changing demands of information technology along with necessary inputs from the Industry.
  The OBJECTIVE of the course is to develop skilled manpower in the various areas of software industry and Information Technology.

COURSE STRUCTURE
Bachelor Of Computer Application (BCA)
w.e.f. –Academic Year 2017-18

First Year BCA - (Sem I & II) w.e.f. - July 2017-18

Paper	Semester -I	Paper	Semester –II
BCA 101	Foundation Course for Managers	BCA 201	Financial Accounting
BCA 102	Computer Fundament and Networking	BCA 202	Professional Communication
BCA 103	Essential of Web Design I	BCA 203	Essential of Web Design II
BCA 104	Programming In C	BCA 204	Programming In C++
BCA 105	Practical on Computer & Internet	BCA 205	Practical on Professional Communication
BCA 106	Practical on Web Design-I	BCA 206	Practical on Web Design-II
BCA 107	Practical on C Programming	BCA 207	Practical on C++ Programming

Second Year BCA - (Sem III & IV) w.e.f. - July 2018-19

Paper	Semester -III	Paper	Semester –IV
BCA 301	Mathematics and Statistics for Managers	BCA 401	Introduction to Information System Audit
BCA 302	Management Information System	BCA 402	RDBMS
BCA 303	Java Programming	BCA 403	C#.NET
BCA 304	Linux Operating System	BCA 404	Data Structure
BCA 305	Practical on Java	BCA 405	Practical on C#.NET
BCA 306	Practical on Linux	BCA 406	Practical on RDBMS using Oracle
BCA 307	Practical on Tally ERP	BCA 407	Practical on Data Structure using CPP

Third Year BCA - (Sem V & VI) w.e.f. - July 2019-20

Paper	Semester –V	Paper	Semester -VI
BCA 501	Entrepreneurship Development	BCA 601	E-Commerce & M-Commerce
BCA 502	Cyber Security	BCA 602	Cloud Computing
BCA 503	ASP.NET	BCA 603	Android Application Development
BCA 504	Software Engineering	BCA 604	Server Side Scripting using PHP
BCA 505	Practical on ASP.Net	BCA 605	Practical on Android &PHP
BCA 506	Practical on CASE Tool with MS-VISIO and Software Testing	BCA 606	Practical on Employability Skills
BCA 507	Field Work on IT Project Assessment	BCA 607	Project Report and Viva

NORTH MAHARASHTRA UNIVERSITY, JALGAON

'A' Grade NAAC Re-Accredited

FACULTY OF COMMERCE & MANAGEMENT

Structure, Equivalence and Syllabusof

Bachelor in Business Administration

(BBA)

(Semester 60-40 Pattern)

With effect from June- 2017-18

COURSE OBJECTIVES

The Bachelor of Business Administration equips student with an understanding of the competitive environment in which private and a public sector organization operate, and provides student with the analytical and operational skills to resolve business problems in both sectors.

The BBA program aims at developing a student's intellectual ability, executive personality and managerial skills through an appropriate blending of business and general education. The program assists the student in understanding and developing the unique leadership qualities required for successfully managing business functions, an organizational unit or an enterprise.

The specific objectives of the program are to:

- ✓ To prepare the students for higher studies in business at home and abroad.

- ✓ To introduce students to a range of core business disciplines, including marketing, accounting, human resources management, internet systems and organizational behavior.

- ✓ To provide opportunities to develop and practice professional skills essential in the workplace.

- ✓ To prepare the Students will be armed with skills which will enable them to think critically, research and analyze information and apply it in modern business contexts.

- ✓ To make the BBA degree is many a times referred to as the golden passport, since it gives its holder an edge in the job market by opening more doors ofopportunity.

- ✓ To meet the needs of small and medium enterprises as well as large corporations. It will give a professional qualification to those engaged in the administration and management of businesses and other organizations, including public, private and not-for-profit organizations.

- ✓ To improve professional communication skills and soft skills of the students alongwith enhancing administration skills in them.

- ✓ To help students to understand the various areas and explore various types of opportunities available in practical world of Business.

STRUCTURE

First Year BBA– (Sem I & II) w.e.f.2017-18

Paper	Semester I	Paper	Semester II
A1.1	Principles of Management	A2.1	Organizational Behavior
A1.2	Principles of Economics	A2.2	Managerial Economics
A1.3	Professional Communication	A2.3	Business Ethics and Corporate Governance
A1.4	Fundamentals of Accounting	A2.4	Financial Accounting and Costing
A1.5	Information Technology for Business	A2.5	Marketing Management
A1.6	Practicals on Professional Communication	A2.6	Practicals on Web Designing & Publishing
A1.7	Practicals on Office Automation	A2.7	Practicals on Management- "Learnings from Business Leaders"

Second Year BBA– (Sem III & IV) w.e.f.2018-19

Paper	Semester III	Paper	Semester IV
A3.1	Mathematics and Statistics for Managers	A4.1	Business Research Methods
A3.2	Corporate Accounting & Costing	A4.2	Direct & Indirect Taxes in India
A3.3	Business & Corporate Laws	A4.3	Human Resource Management
A3.4	Management of Small Scale Industries	A4.4	Production & Materials Management
A3.5	Management Information Systems & ERP	A4.5	Financial Management
A3.6	Practicals on Management of Small Scale Industries	A4.6	Practicals on Tally ERP
A3.7	Practicals on Advanced Excel	A4.7	Practicals on Tax Base Software

Third Year BBA– (Sem V & VI) w.e.f.2019-20

Paper	Semester V	Paper	Semester VI
A5.1	International Business Management	A6.1	Management of Services
A5.2	Entrepreneurship Development	A6.2	Family Business Management
A5.3	Case Studies in Management	A6.3	Cyber Security & Laws
	Elective Group-(A) Financial Management		Elective Group-(A) Financial Management
A5.4(A)	Banking and Insurance	A6.4(A)	Auditing Practices
A5.5(A)	Capital, Money and Commodity Market	A6.5(A)	Investment Banking
	Elective Group-(B) Marketing Management		Elective Group-(B) Marketing Management
A5.4(B)	Customer Relationship Management	A6.4(B)	e-commerce and Digital Marketing
A5.5(B)	Retail Management	A6.5(B)	Product and Brand Management
	Elective Group-(C) Human Resource Management		Elective Group-(C) Human Resource Management
A5.4(C)	Recruitment and Selection	A6.4(C)	Training & Development
A5.5(C)	Industrial Relations	A6.5(C)	Performance Management
A5.6	Practicals on Employability Skills-I	A6.6	Practicals on Employability Skills-II
A5.7	Practicals based on e-Commerce	A6.7	Project Report based on Elective Group

Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon

'A' Grade NAAC Re-Accredited (3rd Cycle)

FACULTY OF COMMERCE AND MANAGEMENT

Structure, Equivalence and Syllabus of Master of Management Studies (Computer Management) M.M.S. (C.M.) (CBCS Pattern) (w.e.f.: 2021-22)

Choice Based Credit System
(Outcome Based Curriculum)

Course Code	Course Type	Title of the Course	Contact hours/week			Distribution of Marks for Examination						Credits
						Internal		External		Total		
			Th(L)	Pr	Total	Th	Pr	Th	Pr	Th	Pr	
1.1	Core	Principles of Management	04	--	04	40	--	60	--	100	--	04
1.2	Skill Based	Financial Accounting	04	--	04	40	--	60	--	100	--	04
1.3	Core	Web Designing and Web Authoring Tools	04	--	04	40	--	60	--	100	--	04
1.4	Core	ICT fundamentals & Office Automation	04	--	04	40	--	60	--	100	--	04
1.5	Core	Programming in C	04	--	04	40	--	60	--	100	--	04
1.6	Skill Based	Lab I-Practical on Tally ERP & Web Designing	04	--	04	--	40	--	60	--	100	04
1.7	Skill Based	Lab II-Practical on Office Automation &C Programming	04	--	04	--	40	--	60	--	100	04
AC-101	Audit Course	Practicing Cleanliness		02	02		100	--	--	--	100	02

Kavayitri Bahinabai Chadhari North Maharashtra University, Jalgaon

'A' Grade NAAC Re-Accredited (3rd Cycle)

FACULTY OF COMMERCE & MANAGEMENT

Structure of

Master of Management Studies (Computer Management) - MMS (CM) (CBCS) w.e.f. 2021-22 , Semester – II

Course Code	Course Type	Title of the Course	Contact hours/week			Distribution of Marks for Examination						Credits
						Internal		External		Total		
			Th(L)	Pr	Total	Th	Pr	Th	Pr	Th	Pr	
2.1	**Skill Based**	Communication Skills	04	--	04	40	--	60	--	100	--	04
2.2	Core	Management Information System	04	--	04	40	--	60	--	100	--	04
2.3	Core	System Analysis and Design	04	--	04	40	--	60	--	100	--	04
2.4	Core	RDBMS	04	--	04	40	--	60	--	100	--	04
2.5	Core	Object Oriented Programming using C++	04	--	04	40	--	60	--	100	--	04
2.6	**Skill Based**	Lab III-Practical on RDBMS	04	--	04	--	40	--	60	--	100	04
2.7	**Skill Based**	Lab IV-Practical on C++	04	--	04	--	40	--	60	--	100	04
AC-201	**Audit Course** (Choose One)	**Personality and Cultural Development** AC-201A - Soft Skills AC-201B - Sport Activities AC-201C - Yoga AC-201D - Music		**02**	**02**	**100**	--	--	--	**100**		**02**

Kavayitri Bahinabai Chadhari North Maharashtra University, Jalgaon

'A' Grade NAAC Re-Accredited (3rd Cycle)

FACULTY OF COMMERCE & MANAGEMENT

Structure of

Master of Management Studies (Computer Management) - MMS (CM) (CBCS) w.e.f. 2022-23 , Semester – III

Course Code	Course Type	Title of the Course	Contact hours/week			Distribution of Marks for Examination						Credits
						Internal		External		Total		
			Th(L)	Pr	Total	Th	Pr	Th	Pr	Th	Pr	
3.1	Core	CRM & Digital Marketing	04	--	04	40	--	60	--	100	--	04
3.2	Core	Cyber Security and IT Act	04	--	04	40	--	60	--	100	--	04
3.3	Skill Based	Graphics & Animation	04	--	04	40	--	60	--	100	--	04
3.4	Core	Web Scripting with PHPand MySQL	04	--	04	40	--	60	--	100	--	04
3.5	Core	C#.NET Programming	04	--	04	40	--	60	--	100	--	04
3.6	Skill Based	Lab V-Practical on Graphics& Animation & PHP	04	--	04	--	40	--	60	--	100	04
3.7	Skill Based	Lab VI-Practical on C#.NetProgramming	04	--	04	--	40	--	60	--	100	04
AC-301	Audit Course	Technology + Value Added Courses AC-301A - Computer Skills AC-301B - Cyber Security AC-301C - Seminar + Review Writing		02	02		100	--	--	--	100	02

Kavayitri Bahinabai Chadhari North Maharashtra University, Jalgaon
'A' Grade NAAC Re-Accredited (3rd Cycle)
FACULTY OF COMMERCE & MANAGEMENT
Structure of
Master of Management Studies (Computer Management) - MMS (CM) (CBCS) w.e.f. 2022-23 , Semester - IV

Course Code	Course Type	Title of the Course	Contact hours/week			Distribution of Marks for Examination						Credits
						Internal		External		Total		
			Th(L)	Pr	Total	Th	Pr	Th	Pr	Th	Pr	
4.1	Core	Human Resource Management	04	--	04	40	--	60	--	100	--	04
4.2	Core	E-commerce and M-commerce	04	--	04	40	--	60	--	100	--	04
4.3	Core	Internet Computing with ASP.NET	04	--	04	40	--	60	--	100	--	04
4.4	Core	Java Programming	04	--	04	40	--	60	--	100	--	04
4.5	Skill Based	Project Work	04	--	04	--	40	--	60	--	100	04
4.6	Skill Based	Lab VII-Practical on ASP.NET	04	--	04	--	40	--	60	--	100	04
4.7	Skill Based	Lab VIII-Practical on Java Programming	04	--	04	--	40	--	60	--	100	04
AC-401	Audit Course	**Professional and Social Value Added Courses** AC-401A - Human Rights AC-401B - Current Affairs AC-401C - Seminar + Review Writing AC-401D - Intellectual Property Rights (IPR)		02	02		100	--	--	--	100	02

North Maharashtra University, Jalgaon

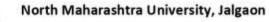**NAAC Re-accredited 'A' Grade University**

FACULTY OF
COMMERCE AND MANAGEMENT

Structure, Equivalence and Syllabus

of

Master in Management Studies (Computer Management)

MMS (CM)

(Semester 60-40 Pattern)

w.e.f AY 2017-18

North Maharashtra University, Jalgaon

(NAAC Reaccredited 'A' Grade University)

FACULTY OF COMMERCE and MANAGEMENT

STRUCTURE OF MASTER IN MANAGEMENT STUDIES M.M.S.(C.M.)

w.e.f. AY 2017-18

MMS-CM –I W.e.f A.Y. 2017-18

Semester I		Semester II	
Code	Subject	Code	Subject
1.1	Principles of Management	2.1	Communication Skills
1.2	Financial Accounting	2.2	Management Information System
1.3	Web Designing and Web Authoring Tools	2.3	System Analysis and Design
1.4	ICT fundamentals & Office Automation	2.4	RDBMS
1.5	Programming in C	2.5	Object Oriented Programming using C++
1.6	Lab I-Practical on Tally ERP & Web Designing	2.6	Lab III-Practical on RDBMS
1.7	Lab II-Practical on Office Automation & C Programming	2.7	Lab IV-Practical on C++

MMS-CM –II W.e.f A.Y. 2018-19

Semester III		Semester IV	
Code	Subject	Code	Subject
3.1	CRM & Digital Marketing	4.1	Human Resource Management
3.2	Cyber Security and IT Act	4.2	E-commerce and M-commerce
3.3	Graphics & Animation	4.3	Internet Computing with ASP.NET
3.4	Web Scripting with PHP and MySQL	4.4	Java Programming
3.5	C#.Net Programming	4.5	Project Work
3.6	Lab V-Practical on Graphics & Animation & PHP	4.6	Lab VII-Practical on ASP.NET
3.7	Lab VI-Practical on C#.NET Programming	4.7	Lab VIII-Practical on Java Programming

कवयित्री बहिणाबाई चौधरी उत्तर महाराष्ट्र विद्यापीठ, जळगाव
Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon

अभ्यास मंडळ विभाग

जा.क्र. :उमवि/२१/Environmental Studies/ ५२/ /२०१८

दिनांक:- २२/११/२०१८

प्रति,
क.ब.चौ.उमविशी संलग्न सर्व महाविद्यालयांचे मा.प्राचार्य
व मान्यता प्राप्त परिसंस्थांचे मा. संचालक आणि
मा.विभाग प्रमुख विद्यापीठ शैक्षणिक प्रशाळा / विभाग यांना...

विषय :- Environmental Studies या विषयाचे अभ्यासक्रमा संदर्भात.

महोदय / महोदया,

उपरोक्त विषयांस अनुसरुन आपणांस कळविण्यात येते की, मा.सर्वोच्च न्यायालयाचे निर्णयानुसार पर्यावरण संतुलन राखण्यासाठी प्रथम वर्षास प्रवेशित विद्यार्थ्यांसाठी सहा महिन्यांचा पर्यावरणशास्त्र विषयाचा अभ्यासक्रम जून, २००४ पासून सर्व विद्याशाखांमध्ये समाविष्ट करण्यात आलेला आहे.

शैक्षणिक वर्ष २०१८-१९ पासून प्रथम वर्ष कला विज्ञान व वाणिज्य वर्गांना Choice Based Credit System लागू करण्यात आलेली असल्याने Environmental Studies या विषयाचा अभ्यासक्रम Ability Enhancement Course अंतर्गत Choice Based Credit System प्रमाणे तयार करणेसाठी नियुक्त समितीच्या सभेत Environmental Studies विषयाच्या गुणांची विभागणी (Marks Pattern) देखील ६०:४० प्रमाणे करण्यात यावी, व गुणांकन (Marks Pattern) पुढील प्रमाणे करण्यात यावे, असे ठरले आहे.

लेखी परीक्षा (Theory)	६० गुण
अंतर्गत (Internal) परीक्षा फिल्ड वर्क /व्हायवा	४० गुण
एकूण	१०० गुण

अंतर्गत ४० गुणांची विभागणी पुढील प्रमाणे करण्यात यावी.

उपस्थिती (Attendance)	०५ गुण
वर्तणूक (Behaviour)	०५ गुण
व्हायवा (Viva-voce)	१० गुण
फिल्ड वर्क (Report of field Work)	२० गुण
	४० गुण

त्याअनुषंगाने Environmental Studies या विषयाचा अभ्यासक्रम विद्यापीठ अनुदान आयोगाने दिलेला असून तो जसाचे तसा लागू करण्यात आलेला असल्याने अभ्यासक्रमात बदल न करता अभ्यासक्रम तोच ठेवण्यात आला आहे. सदरचा अभ्यासक्रम उमविच्या संकेत स्थळावर अपलोड करण्यात आला आहे. तरी वरील आशय सर्व संबंधित प्राध्यापक व विद्यार्थी यांचे निदर्शनास आणून देवून पुढील योग्य ती कार्यवाही करुन विद्यापीठास सहकार्य करावे, ही विनंती.
म.कळावे,

आपला विश्वासु,

(ए.सी.मनोरे)
उपकुलसचिव
अभ्यास मंडळ विभाग

CORE MODULE SYLLABUS FOR ENVIRONMENTAL STUDIES
FOR UNDER GRADUATE COURSES OF ALL BRANCHES
OF HIGHER EDUCATION

Vision

The importance of environmental science and environmental studies cannot be disputed. The need for sustainable development is a key to the future of mankind. Continuing problems of pollution, loss of forget, solid waste disposal, degradation of environment, issues like economic productivity and national security, Global warming, the depletion of ozone layer and loss of biodiversity have made everyone aware of environmental issues. The United Nations Coference on Environment and Development held in Rio de Janerio in 1992 and world Summit on Sustainable Development at Johannesburg in 2002 have drawn the attention of people around the globe to the deteriorating condition of our environment. It is clear that no citizen of the earth can afford to be ignorant of environment issues. Environmental management has captured the attention of health care managers. Managing environmental hazards has become very important.

Human beings have been interested in ecology since the beginning of civilization. Even our ancient scriptures have emphasized about practices and values of environmental conservation. It is now even more critical than ever before for mankind as a whole to have a clear understanding of environmental concerns and to follow sustainable development practices.

India is rich in biodiversity which provides various resources for people. It is also basis for biotechnology.

Only about 1.7 million living organisms have been diescribed and named globally. Still manay more remain to be identified and described. Attempts are made to

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conserve them in ex-situ and in-situ situations. Intellectual property rights (IPRs) have become importanat in a biodiversity-rich country like India to protect microbes, plants and animals that have useful genetic properties. Destruction of habitats, over-use of energy resource and environmental pollution have been found to be responsible for the loss of a large number of life-forms. It is feared that a large proportion of life on earth may get wiped out in the near future.

Inspite of the deteriorating status of the environment, study of environment have so far not received adequate attention in our academic programmes. Recognizing this, the Hon'ble Supreme Court directed the UGC to introduce a basic course on environment at every level in college education. Accordingly, the matter was considered by UGC and it was decided that a six months compulsory core module course in environmental studies may be prepared and compulsorily implemented in all the University/Colleges of India.

The experts committee appointed by the UGC has looked into all the pertinent questions, issues and other relevant matters. This was followed by framing of the core module syllabus for environmental studies for undergraduate courses of all branches of Higher Education. We are deeply conscious that there are bound to be gaps between the ideal and real. Geniune endeavour is required to minimize the gaps by intellectual and material inputs. The success of this course will depend on the initiative and drive of the teachers and the receptive students.

SYLLABUS

Unit 1 : Multidisciplinary nature of environmental studies

Definition, scope and importance

(2 lectures)

Need for public awareness.

II

Unit 2 : Natural Resources :

Renewable and non-renewable resources :
Natural resources and associated problems.

a) Forest resources : Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest and tribal people.

b) Water resources : Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.

c) Mineral resources : Use and exploitation, environmental effects of extracting and using mineral resources, case studies.

d) Food resources : World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.

e) Energy resources : Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources. Case studies.

f) Land resources : Land as a resource, land degradation, man induced landslides, soil erosion and desertification.

- Role of an individual in conservation of natural resources.
- Equitable use of resoureces for sustainable lifestyles.

(8 lectures)

Unit 3 : Ecosystems

- Concept of an ecosystem.

- Structure and function of an ecosystem.

- Producers, consumers and decomposers.

- Energy flow in the ecosystem.

- Ecological succession.

- Food chains, food webs and ecological pyramids.

- Introduction, types, characteristic features, structure and function of the

  following ecosystem :-

  a. Forest ecosystem

  b. Grassland ecosystem

  c. Desert ecosystem

  d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

  (6 lectures)

Unit 4 : Biodiversity and its conservation

- Introduction – Definition : genetic, species and ecosystem diversity.

- Biogeographical classification of India

- Value of biodiversity : consumptive use, productive use, social, ethical, aesthetic and option values

- Biodiversity at global, National and local levels.

- Inida as a mega-diversity nation

- Hot-sports of biodiversity.

- Threats to biodiversity : habitat loss, poaching of wildlife, man-wildlife conflicts.

- Endangered and endemic species of India

- Conservation of biodiversity : In-situ and Ex-situ conservation of biodiversity.

(8 lectures)

Unit 5 : Environmental Pollution

Definition

- Cause, effects and control measures of :-

  a.   Air pollution

  b.   Water pollution

  c.   Soil pollution

  d.   Marine pollution

  e.   Noise pollution

  f.   Thermal pollution

  g.   Nuclear hazards

- Solid waste Management : Causes, effects and control measures of urban and industrial wastes.

- Role of an individual in prevention of pollution.

- Pollution case studies.

- Diaster management : floods, earthquake, cyclone and landslides.

(8 lectures)

V

Unit 6 : Social Issues and the Environment

- From Unsustainable to Sustainable development

- Urban problems related to energy

- Water conservation, rain water harvesting, watershed management

- Resettlement and rahabilitation of people; its problems and concerns. Case Studies

- Environmental ethics : Issues and possible solutions.

- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies.

- Wasteland reclamation.

- Consumerism and waste products.

- Environment Protection Act.

- Air (Prevention and Control of Pollution) Act.

- Water (Prevention and control of Pollution) Act

- Wildlife Protection Act

- Forest Conservation Act

- Issues involved in enforcement of environmental legislation.

- Public awareness.

(7 lectures)

Unit 7 : Human Population and the Environment

- Population growth, variation among nations.

- Population explosion – Family Welfare Programme.

VI

- Environment and human health.

- Human Rights.

- Value Education.

- HIV/AIDS.

- Women and Child Welfare.

- Role of Information Technology in Environment and human health.

- Case Studies.

(6 lectures)

Unit 8 : Field work

- Visit to a local area to document environmental assets-
river/forest/grassland/hill/mountain

- Visit to a local polluted site-Urban/Rural/Industrial/Agricultural

- Study of common plants, insects, birds.

- Study of simple ecosystems-pond, river, hill slopes, etc. (Field work Equal to 5
lecture hours)

SIX MONTHS COMPULSORY CORE MODULE COURSE IN

ENVIRONMENTAL STUDIES : FOR UNDERGRADUATES

Teaching Methodologies

The core Moudle Syllabus for Environment Studies includes class room teaching and Field Work. The syllabus is divided into eight units covering 50 lectures. The first seven units will cover 45 lectures which are class room based to enhance knowledge skills and attitute to environment. Unit eight is based on field activites which will be covered in five lecture hours and would provide student first hand knowledge on varios local environmental aspects. Field experience is one of the most effective learning tools for environmental concerns. This moves out of the scope of the text book mode of teaching into the realm of real learning in the field, where the teacher merely acts as a catalyst to interpret what the student observes or discovers in his/her own environment. Field studies are as essential as class work and form an irreplaceable synergistic tool in the entire learning process.

Course material provided by UGC for class room teaching and field activities be utilized.

The universities/colleges can also draw upon expertise of outside resource persons for teaching purpose.

Environmental Core Module shall be integrated into the teaching programmes of all undergraduate courses.

Annual System : The duration of the course will be 50 lectures. The exam will be conducted along with the Annual Examination.

Semester System : The Environment course of 50 lectures will be conducted in the second semester and the examination shall be conducted at the end of the second semester.

Credt System : The course will be awarded 4 credits.

Exam Pattern : In case of awarding the marks, the question paper should carry 100 marks. The structure of the question paper being :

Part-A, Short answer pattern   -   **20** marks

Part-B, Essay type with inbuilt choice   -   **40** marks

Part-C, Field Work   -   **40** marks

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