



Bachelor of Science in Environmental Management (B. Sc. Env. Mgmt.)

CURRICULUM

Faculty of Science and Technology
Pokhara University
2014



POKHARA UNIVERSITY
Bachelor of Science in Environmental Management

1. Program Objectives

The Bachelor of Science in Environmental management(B. Sc. Env. Mgmt.) Of Pokhara University has been designed to offer an unique opportunity to acquire skillful knowledge and practical tools on Multi-disciplinary subjects related to Environmental Management. The course provides the fundamental basis for the understanding and application of Social, Physical, Biological, Legal and Economical components of Environment and their integrating into a holistic approach to provide a comprehensive working knowledge on the environmental management. The program focuses on developing social, environmental and developmental outlook and adequate skill in analysis, environmental decision-making, implementation, leadership, and communication among the students.

The specific objectives of the program are as follows:

1. Offer the courses and research study covering fundamentals, environmental management tools and advanced courses.
2. Provide an opportunity of carrying out research using cross- cutting tools and state of the art information for thesis.
3. Provide an opportunity for the students to acquire the advance knowledge on the subject and enhance the individual skills and expertise and
4. Contribute to policy research and support the concerned institution in the country

2. Curricular Structure

The curriculum is designed to equip the students with the competencies, knowledge, skills, and attitudes required for a successful Environmental Scientist and Manager. The coursework gives students multi-disciplinary holistic view of the complexity of environmental issues. The curriculum comprises the following 4 distinct components:

- **Fundamental Knowledge Courses (FKC):** The foundation and analytical courses provide the necessary academic background and analytical tools for B.Sc. study and are pre-requisite for advanced courses.
- **Environmental Management Tools (EMT):** An advanced courses on the application of Environmental management tools and methods for analytical study for solving complexity of environmental problems
- **Advanced Courses (AC):** The courses provides students with an opportunity for in-depth study with particular focus on the global environment issues.
- **Thesis:** Students are required to undertake an undergraduate research project that involves fieldwork and empirical data analysis of the information collected. Students are also required to prepare a thesis on a prescribed format. This would provide students with an opportunity to gain real-life experiences by applying the environmental management tools for solving complex environmental issues.

3. Program Features

The program is spread over eight semesters. A student needs to successfully complete 120 credit hours of course work. The program will use a range of pedagogical inputs that includes on-campus learning through classroom discussions, presentations, group work, case analysis and

guest lecture series, and off-campus learning through project work, on-line instructions.

4. The Semester System

The prominent feature of the semester system is the continuous evaluation of a student's performance, and flexibility given to the students to progress at pace suited to his/her individual ability as per the credit requirements.

The credit hour assigned to each course of this program varies depending on its lecture, tutorial and practical work hours in a week. One lecture/contact hour per week per semester is assigned one credit. That is, a three credit hours course has 48 class hours. A faculty member is assigned to teach each of the courses. If the course is taught by more than one faculty member, then one of the members is designated as the coordinator of that course.

5. Entry Requirements and Admission Procedures

Eligibility

The prospective individual with an intermediate or (+2) degree in science, forestry, agriculture and engineering and other related technical subjects or equivalent from recognized institutions are eligible to enter into the B.Sc. degree course in environmental management. Besides fulfilling the basic academic requirements, the student must pass the entrance test conducted by the concerned college.

Documents Required

The applicant is required to submit the following documents with the application form made available by the concerned college/school by paying a predetermined fee:

- Completed and signed B.Sc. application form
- Official transcripts from all the academic

- institutions attended
- Migration certificate

Certificates of all degrees should be photocopied and submitted with proper attestation. Enrolment is conditional upon completion of all admission formalities including payment of all fees as determined by the college. Incomplete applications shall not be processed.

Admission Procedures

A notice inviting applications for admission is publicly announced. Application forms and information brochures are provided, on request, after the payment of the prescribed fee. The concerned college scrutinizes the application. The eligible candidates are informed to take the entrance test. The date and time for the entrance test are informed to the applicants by the concerned colleges. The college may also interview the candidates for final selection for admission. A college may, however, modify the selection procedure to suit its needs with prior approval of the Dean.

The candidates, who are given provisional admission under special condition, are required to submit all necessary documents within a month of the beginning of regular classes. Otherwise, the admission will be canceled.

6. Academic Schedule and Course Registration

The academic session consists of two semesters. The Fall Semester starts in September and the Spring Semester starts in March. Students are normally admitted to the program in the Fall Semester.

Students are required to register courses at the beginning of each semester. Since registration is a very important

procedural part of the credit system, all students must present themselves at the college. Registration in absence may be allowed only in rare cases at the discretion of principal. A student's nominee cannot register for courses but will only be allowed to complete other formalities.

7. Addition and Withdrawal from Courses

A student would have the option to add or drop from the course. This can, however, be done only during the first week of the semester. A student wishing to withdraw from a course, should apply on the prescribed form within two weeks from the starting date of the Semester.

8. Normal and Maximum Duration of Study

The duration for the completion of the program is as follows:

- Normal duration: 4 Years (8 Semesters)
- Maximum Duration: 8 Years

A full-time student has to take a minimum of 12 credits.

9. Attendance Requirements

The students must attend every lecture, tutorial and practical class. However, to accommodate for late registration, sickness and other such contingencies, the attendance requirements will be a minimum of 80% of the classes actually held.

10. Evaluation System

A student's academic performance in a course is evaluated in two phases as:

- Internally by the concerned faculty member and
- Externally by the Office of the Controller of Examinations through semester-end examinations. A fifty percent weight is given to internal evaluation and fifty percent

weight is given to external evaluation (Semester-end examination). The pass mark for both the internal evaluation and external evaluation (Semester-end examination) is forty-five percent. A student must qualify in both evaluations separately to get a pass grade in a particular course. The final grade awarded to a student in a course is based on his/her consolidated performance in both internal and external evaluations.

The internal evaluation may consist of various components like project works, quizzes, presentations, written examinations, reflection notes preparation, and the like. A student will get NOT QUALIFIED (NQ) status in the internal evaluation if his/her performance falls below the minimum requirement. Such students will not be allowed to appear in the semester-end examination of that particular course.

11. Grading System

Pokhara University follows a four-point letter grade system. The letter grades awarded to students will be as follows:

Grade	Grade Point	Description
A	4.0	Excellent
A-	3.7	
B+	3.3	
B	3.0	Good
B-	2.7	
C+	2.3	
C	2.0	Satisfactory
C-	1.7	
D+	1.3	
D	1.0	Minimum Requirement
F	0	Fail

If a student cannot finish all the assigned works for the

course, he/she will be given an incomplete grade 'I'. If all the required assignments are not completed within the following semester, the grade of 'I' will automatically be converted into 'F'.

The performance of a student is evaluated in terms of two indices: (a) Semester Grade Point Average (SGPA) which is the grade point average of the particular semester, and (b) Cumulative Grade Point Average (CGPA) which is the grade point average of all the semesters.

$$SGPA = \frac{\text{Total honor points earned in a semester}}{\text{Total number of credits registered in a semester}}$$

$$CGPA = \frac{\text{Total honor points earned}}{\text{Total number of credits completed}}$$

Where,

Honor Point = Grade point earned in a subject × Number of credits assigned to that subject

12. Degree Requirements

For graduation a student should have:

- A 'D' or better grade in each of the courses as specified in the grading system section.
- Completed all the courses, project work and Thesis as specified in the curricular structure section within the maximum time period specified in the normal and maximum duration of study section.
- A CGPA of 2 or better.

13. Distinction and Dean's List

A student who obtains a cumulative GPA of 3.60 or better will receive the B.Sc. degree with distinction. The Dean's

list recognizes outstanding academic performance in the Faculty of Science and Technology. To qualify to this list, a student must have a CGPA of 3.70 or better.

14. Repeating a Course

A course may be taken only once for grade. Since passing of all courses individually is a degree requirement, the student must retake the failing course when offered and must successfully complete the course. A student will be allowed to retake maximum of two courses to achieve a minimum CGPA of 2.0. The grade earned on the retake examination will substitute the earlier grade earned by the student in that course. A student can retake a course only when it is offered by the college/university.

15. Credit Transfer and Withdrawal

A maximum of 25% of the total credit hours of course work completed by a student in an equivalent program of a recognized university/institution may be transferred/waived for credit by the Dean on the recommendation of the principal of the college. However, for such transfer of credit, a student must have received a grade of 'B' or better in the respective course. Courses taken more than five years earlier than the date of application will not be accepted for transfer of credit.

Credit transfers will also be allowed from different programs of Pokhara University. In such cases, all credits earned by students in compatible courses with a minimum grade of B may be transferred to the new program.

The student may apply for withdrawal from the entire semester only on medical grounds. However, partial withdrawal from courses registered in a semester will not be considered.

16. Unfair Means

Students are strictly forbidden from adopting unfair means in class assignments, tests, report-writing and final examination. The following would be considered as adoption of unfair means during examination:

- Communicating with fellow students for obtaining help.
- Copying from another student's script/report/paper.
- Copying from disk, mobile, palm of hand or other incriminating documents and equipment.
- Possession of any incriminating documents, whether used or not.
- Any approach in direct or indirect form to influence teacher concerning grade.
- Unruly behavior which disrupts academic program.

If the instructor detects a student using unfair means, the student may be given an 'F' grade at the discretion of the Examination Board. Adoption of unfair means may result in the dismissal of the student from the program and expulsion of the student from the college and as such from Pokhara University.

17. Dismissal from the Program

A student is normally expected to obtain a GPA of 2.0 in the semester end examinations of the B.Sc. program. If a student's performance falls short of maintaining this CGPA continuously over the semester he/she may be advised to leave the program or dismissed from the program.

18. Detailed Curricular Structure

The B.Sc. students are required to complete 37 courses, Students are required to complete Fundamental Knowledge Course 11 (31 credits), Advance Management Courses 10(30 credits) Tools and Techniques Course 11 (32 credits) Specialized Courses 6 (credit 27), including thesis

work.

Fundamental Knowledge Course (31 Credit Hours)

ENG 101 General English	2
MTH 102 Fundamentals of Mathematics	3
ENV 103 Introductory Biology	3
ENV 104 Introductory Chemistry	3
ENV 105 Introductory Physics	2
ENV 106 Environmental Geology and Soil	3
ENG 107 Communication and Technical English	3
MTH 108 Applied Mathematics	3
ENV 109 Environmental Microbiology	3
ENV 110 Environmental Chemistry	3
ENV 111 Ecology and Environment Science	3

Environmental Management Course (30 Credit Hours)

SOC 201 Environmental Sociology	3
ECO 202 Fundamental Economics	3
STT 203 Applied Statistics	3
ENV 204 Biodiversity and Biotechnology	3
ENV 205 Hydrology and Meteorology	3
ENV 206 Environmental Resources and Sustainable Development	3
ECO 207 Environmental Economics and Trade	3
ENV 208 Environmental Engineering	3
MGT 209 Environmental Policy, Laws and Conventions	3
MGT 210 Project Management	3

Environmental Management tools and Techniques (32 Credit Hours)

ENV 211 Sustainable Tourism Management	3
ENV 212 Environmental Management System	3

ENV 213	Environmental Assessment Techniques	3
ENV 214	Environmental Monitoring	3
ENV 215	Environmental Governance	3
ENV 216	Geo-information Management	3
MGT217	Comprehensive Environmental Planning and Conflict Management	3
ENV 218	Disaster and Risk Assessment Techniques	3
ENV 219	Urban Development and Environmental Management	3
ENV 220	Integrated Watershed Management	3
ENV 221	Environmental Technology	2

Specialized Course (27 Credit Hours)

ENV 301	Aquatic Environmental Management	3
ENV302	Climate change and society	3
RCH303	Research Methodologies	3
ENV 304	Environmental Health and Sanitation	3
ENV 305	Emerging Issues, Seminar and Proposal Writing	3
ENV 306	Thesis (Research Work)	12

Thesis

During the study in 8th Semester, students are required to undertake a research assignment as thesis work and prepare a research report in any areas of environmental management as approved by the Principal of Colleges. The principal of College should appoint a research supervisor for each student based on the topics of research. For undergraduate program (B.Sc.), the research supervisor should be holding a Ph. D. degree or more than 10 years experiences for those who are holding only M.Sc. degrees on that particular area of research. Each student preparing for a thesis should submit a synopsis of research topics and

curriculum vitae of research supervisor to the Principal of College and after approval; it should be forwarded to the Dean office of the University for Registration.

Students are required to attend the viva-voce examination and give a seminar presentation of their report as organized by the University. The weight given for viva and the research report will be 25% and 75% respectively. For the evaluation of the research report, the University shall appoint external examiners. The external examiner shall be appointed from the list approved by the Office of the Dean and the search supervisor will act as internal examiner.

Pokhara University
Bachelor of Science in Environmental Management Program
CURRICULAR STRUCTURE AND COURSE CYCLE

Semester I			Semester II		
Course Code	Course Description	Credit Hours	Course Code	Course Description	Credit Hours
ENG 101	General English	2	ENG 107	Communication and Technical English	3
MTH 102	Fundamental of Mathematics	3	MTH 108	Applied Mathematics	3
ENV 103	Introductory Biology	3	ENV 109	Environmental Microbiology	3
ENV 104	Introductory Chemistry	3	ENV 110	Environmental Chemistry	3
ENV 105	Introductory Physics	2	ENV 111	Ecology and Environment Science	3
ENV 106	Environmental Geology and Soil	3			
		16			15

Semester III			Semester IV		
Course Code	Course Description	Credit Hours	Course Code	Course Description	Credit Hours
SOC 201	Environmental Sociology	3	ENV206	Environmental Resources and Sustainable Development	3
ECO 202	Fundamental Economics	3	ECO 207	Environmental Economics and Trade	3
STT 203	Applied Statistics	3	ENV 208	Environmental Engineering	3
ENV 204	Biodiversity and Biotechnology	3	MGT 209	Environmental Policy, laws and Conventions	3
ENV 205	Hydrology and Meteorology	3	MGT 210	Project Management	3
		15			15

Semester V			Semester VI		
Course Code	Course Description	Credit Hours	Course Code	Course Description	Credit Hours
ENV 211	Sustainable Tourism Management	3	MGT 217	Comprehensive Environmental Planning and Conflict Management	3
ENV 212	Environmental Management System	3	ENV 218	Disaster and Risk Assessment Techniques	3
ENV 213	Environmental Assessment Techniques	3	ENV 219	Urban Development and Environmental Management	3
ENV 214	Environmental monitoring	3	ENV220	Integrated Watershed Management	3
ENV 215	Environmental Governance	3	ENV 221	Environmental Technology	2
ENV 216	Geo-information Management	3			
		18			14

Semester VII			Semester VIII		
Course Code	Course Description	Credit Hours	Course Code	Course Description	Credit Hours
ENV 301	Aquatic Environmental Management	3	ENV 306	Thesis Work	12
ENV 302	Climate Change and Society	3			
RCH 303	Research Methodology	3			
ENV 304	Environmental Health and Sanitation	3			
ENV 305	Emerging Issues Seminar and Proposal Writing	3			

Curriculum Development Center

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