

## Syllabus for ENVR 415

<b>Course Name: Environmental Management System (EMS)</b>		
<b>Course Code: ENVR415</b>	<b>Course Type (major)</b>	<b>Course Credits: 3</b>
<b>Class Schedule:</b> <b>Days</b> Monday, Wednesday, Friday <b>Timings</b> 12:00-12:50 pm <b>Class room</b> S109		<b>Student Meeting Hours</b> <b>Tuesday and Thursday</b> Office S326 10:00-12:00 pm
<b>Instructor Name: Dr. Shazia Ilyas</b> <b>Designation: Assistant Professor (Environmental Sciences)</b>		
<b>Instructor Contact Details</b> <b>Email:</b> <a href="mailto:shaziailyas@fccollge.edu.pk">shaziailyas@fccollge.edu.pk</a> <b>Mobile and WhatsApp</b> (03316671689) <b>Guidelines for contacting instructor:</b> If you have any question please send me an email. If you do not get reply from email visit my office.		
<b>Course Description:</b> Pre-requisites if any: Teacher approval This course is a market requirement providing an understanding of environmental management systems (EMS) based on ISO 14001:2015, the requirements of the standard and the relationship between the EMS and environmental legislation. It is a requirement for the industries for growing in the industrial field. Because of its importance, this course is also introduced as a core course to strengthen the program.		
<b>Main Mode of Instruction:</b> <b>Course material delivery:</b> Course material will be available on <a href="#">Moodle</a> . All students are required to use their Moodle account to access the course. Course material includes textbook chapters, printable lecture slides, recording of class lectures, videos, reading material etc. Students have to prepare the assignments/activities as instructed and submit on Moodle within due date.		
<b>Course Objectives or <a href="#">Student Learning Outcomes (SLOs)</a></b> At the end of course, students should be able to: <ol style="list-style-type: none"><li>1. Identify the objectives and benefits of an EMS and the requirements of ISO 14001.</li><li>2. Assess an organization's current state with regards to an EMS and perform a gap analysis to meet EMS standards.</li><li>3. Plan, develop and implement an EMS appropriate for organization.</li><li>4. Identify environmental aspects and impacts with the emphasis on continual improvement.</li></ol>		

# Course Content, Learning Material & Activities Schedule

Week	Topic/ Title
1	<b>Topic 1:</b> Introduction to Environmental Management and Environmental Disasters <i>Assignment#1</i>
2	<b>Topic 2:</b> International organization for standardization (ISO) Need of international standards, ISO standards, ISO 14001 series <i>Discussion Blog # 1</i>
3	<b>Topic 3:</b> History of development of EMS (Safety audit, total quality environmental management system, EMS, BS7750, EMAS, ISO14001) <b>Quiz 1</b> <i>Discussion Blog # 2</i>
4	<b>Topic 4:</b> Benefits and Organizational drivers for successful implementation of EMS
5	<b>Topic 5:</b> Organizational Barriers for EMS (Management style, Management commitment, Credible plans, Innovation, Communication, Corporate culture, strategy integration, technology, strategic complexity, resources, incentives and control, organizational structure) <i>Discussion Blog # 3</i> <i>PowerPoint ppt.</i>
6	<b>Topic 6:</b> Environmental planning and Policy, Planning steps of EMS, development of environmental policy <i>PowerPoint ppt.</i> <i>Assignment # 2</i>
7	<b>Topic 7: ISO14001:2015 standard requirements</b> <b>Planning and Leadership</b> 4.1 Understanding the organization and its context 4.2 Understanding the needs and expectations of interested parties 4.3 Determining the scope of the quality management system 4.4 Environmental management system 5.1 Leadership and commitment 5.2 Environmental policy 5.3 Organizational roles, responsibilities and authorities 6.1 Actions to address risks and opportunities 6.2 Environmental objectives and planning to achieve them <b>Mid Term Exam</b>
8	<b>Topic 8: ISO14001:2015 standard requirements</b> <b>Support</b> 7.1 Resources 7.2 Competence 7.3 Awareness 7.4 Communication 7.5 Documented information
9	<b>Topic 9: ISO14001:2015 standard requirements</b> <b>Operations</b> 8.1 Operational planning and control 8.2 Emergency preparedness and response <i>Discussion Blog # 4</i> <i>PowerPoint ppt.</i>

10	<b>Topic 10: ISO14001:2015 standard requirements</b> <b>Check and Act</b> 9.1 Monitoring, measurement, analysis and evaluation 9.2 Internal audit 9.3 Management review 10.1 Nonconformity and corrective action 10.2 Continual improvement <i>PowerPoint ppt.</i>
11	<b>Topic 11: Implementation of EMS</b> Step by step development and implementation of EMS, Employees awareness sessions, Gap analysis, mandatory documents and procedures <b>Quiz 2</b>
12	<b>Topic 12: Aspects and Impacts Analysis</b> Identification and evaluation of environmental aspects and impacts and control
13	<b>Topic 13: Environmental Auditing</b> Concept of environmental auditing, types and scope of auditing, audit activities step by step <i>Assignment # 3</i>
14	<b>Topic 14: Environmental indicators</b> What are env indicators? Why to use env indicators? How firms develop env indicators
15	<b>Topic 15: Industrial case studies</b> EMS certified, EMS non certified
16	<i>Final Project Submission, Final Exam</i>

**'Out-of-class' Study Required (across all 3 categories of students -- those attending in-person, online, or asynchronously)**

*Attend the class sessions regularly and take notes during class. Reading material will be available on Moodle before class so please read that before coming to class.*

*If you have any question then ask/post in chat in QA session of class (10 min for QA at the end of each class).*

*You will be given guidance to prepare your assignments and all assessments activities.*

*You expected to spend 4 hours per week for class and around 5-8 hours out of class study that includes reading and activities preparation.*

**Textbooks, Materials, Supplies and other Resources**

- Environmental Management Systems: Understanding Organizational Drivers and Barriers by Stephen Tinsley published by Earth Scan, 2006.
- ISO 14001 Environmental Systems Handbook by Ken Whitelaw published by Elsevier, 2004.
- ISO 14001:2015 manual

**Course Requirements:**

*In order to pass this course students need to complete assessment activities given in above table. Due dates for each activity submission is given in the table.*

The breakup is as follows:

<b>Assignments (written, PowerPoint, Poster, discussion blogs)</b>	<b>30%</b>
<b>Quizzes (2*5):</b>	<b>10%</b>
<b>Mid Term</b>	<b>10</b>
<b>Final term exam:</b>	<b>30%</b>
<b>Final Project</b>	<b>20%</b>
<b>TOTAL</b>	<b>100%</b>

**Attendance Policy:** Attendance will be marked for all the classes and if you will miss any class inform me in advance by sending email. 75% attendance is mandatory to pass this course.

**Classroom Participation:**

-Classroom participation will be part of your assessment. You will be given tasks in groups during class where you are required to participate actively.

**Grade Determination & Course Assessment as per FCC Policy:**

- Missed exams will influence your over grades
- Late submissions of assignments will affect your grades as it carries 5% marks

**Grading Legend**

Below is the grading legend of FCCU

Grade	Point Value	Numerical Value	Meaning
A	4.00	93-100	Superior
A-	3.70	90-92	
B+	3.30	87-89	Good
B	3.00	83-86	
B-	2.70	80-82	
C+	2.30	77-79	Satisfactory
C	2.00	73-76	
C-	1.70	70-72	
D+	1.30	67-69	Passing
D	1.00	60-66	
F	0.00	59 or below	Failing

**Student Conduct & Other Issues:**

- Classroom interactions will remain civil, respectful, and supportive.

**Student Support Services**

Go through following documents for additional support

[Student Counseling Services](#)

[Writing Center](#)

[Mercy Health Center](#)

[Sexual Harassment Policy](#)

[Anti-Corruption Policy](#)

[Academic integrity](#)

[Plagiarism Policy](#)

[Academic Calendar](#)

[FCC Policy for Fall Semester 2020](#)

**Note:**

I expect that you will strictly follow the core values of FCCU and put your entire efforts to learn as per the course requirements, attend classes, read the textbook(s)/other assigned reading material and do the assignments in the stipulated time period