

الكلية : الهندسة

القسم : الهندسة البيئية

M.Sc. in Environmental Engineering ماجستير العلوم في الهندسة البيئية

M.Eng. in Environmental Engineering وماجستير الهندسة في الهندسة البيئية

**study plan**

Article 13-1: Schematic illustration for the course semesters

**Schematic outline path (Academic Landscape) and layout of courses of the program**

1 <sup>st</sup> Year: M.Sc & M.Eng		2 <sup>nd</sup> Year: M.Sc.		2 <sup>nd</sup> Year: M.Eng	
1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester	1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester	1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester
Advanced Solid Waste Management and Remediation (3 Cr)	Future Sustainable Development (3 Cr)	Seminar I1 (3 Cr)	Seminar I1 (3 Cr)	Environmental Law and Regulation (3 Cr)	Seminar (3 Cr)
Water Reuse Technologies and Applications (3 Cr)	Statistics and research methodology (0 Cr) Environmental Engineering Modeling (3 Cr)	Thesis Work (3 Cr)	Thesis Work (3 Cr)	Technical Elective I (3 Cr)	Project (0)
Air Quality Engineering (3 Cr)	Water Resources Planning (3 Cr)			Technical Elective II (3 Cr)	
<b>(9 Cr)</b>	<b>(9 Cr)</b>	<b>(6 Cr)</b>	<b>(6 Cr)</b>	<b>(9 Cr)</b>	<b>3</b>

Mathematics & Sciences: Credits 30 (20%)

Core Infrastructure & Engineering: Credits

Others: Credits (%)

\*Selection of elective courses is to be done under the supervision of the Program Coordinator / Departmental Chair / Student Advisor.



Table (22a) List of courses of proposed program  
First Year Semester Wise Core Course Allocation (For both tracks, M.Sc. and M.Eng.)

First Year (First Semester)					
Course code	Course title	Credit hours			Prerequisite
		Theoretical	Practical	Credit	
ENVEN 600	Advanced Solid Waste Management and Remediation	2	3	3	None
ENVEN 601	Water Reuse Technologies and Applications	2	3	3	None
ENVEN 602	Air Quality Engineering	2	3	3	None
<b>Semester Total</b>				<b>9</b>	
First Year (Second Semester)					
ENVEN 603	Future Sustainable Development Introduction to Renewable Resources Engineering	2	3	3	None
ENVEN 604	Statistics and research methodology			NC	None
ENVEN 605	Water Resources Planning	2	3	3	None
	Elective course	2	3	3	None
<b>Semester Total</b>				<b>9</b>	

Table (22b) List of courses of proposed program  
Master of Science (M.Sc. track) in Environmental Engineering

Second Year (First Semester)					
Course code	Course title	Credit hours			Prerequisite
		Theoretical	Practical	Credit	
ENVEN 650	Seminar I <sup>1</sup>		6	3	
ENVEN 699	Thesis Work <sup>2</sup>		6	3	
<b>Semester Total</b>				<b>6</b>	
Second Year (Second Semester)					
ENVEN 651	Seminar II <sup>3</sup>		6	3	None
ENVEN 699	Thesis Work <sup>2</sup>			3	None
<b>Semester Total</b>				<b>6</b>	
<b>Program Total</b>				<b>30</b>	



- <sup>1</sup> This course is a proposal seminar that should be given by the MSc student in the third semester of the graduate study.
- <sup>2</sup> MSc student should register for this thesis course every semester from the date a thesis supervisor is assigned to the date her/his thesis is approved for graduation. The credit hours of this course are included to the transcript once the MSc Candidate's thesis is approved.
- <sup>3</sup> MSc student registers to this course in all semesters except the semester that she/he registers to Seminar I to give her/his proposal seminar. Attendance by minimum of 80% is required in this course.

NC = Non credit

<i>Table (22c) List of courses of proposed program</i>					
<i>Master of Engineering (M.Eng. track) in Environmental Engineering</i>					
<b>Second Year (First Semester)</b>					
<i>Course code</i>	<i>Course title</i>	<i>Credit hours</i>			<i>Prerequisite</i>
		<i>Theoretical</i>	<i>Practical</i>	<i>Credit</i>	
ENVEN 606	Environmental Law and Regulation	2	3	3	
	Environmental Engineering Modeling			3	
ENVEN 6XX	Technical Elective I	2	3	3	
ENVEN 6XX	Technical Elective II	2	3	3	
<b><i>Semester Total</i></b>				<b>9</b>	
<b>Second Year (Second Semester)</b>					
ENVEN 6XX	Seminar		6	3	
ENVEN 698	Project			NC	
<b><i>Semester Total</i></b>				<b>3</b>	
<b><i>Program Total</i></b>				<b>30</b>	



**Table (22d) Environmental Engineering Electives (Selected and technical) List.**

Course code	Course name	Credit hours
ENVEN 607	Sustainable Materials Management	3
	Introduction to Renewable Energy	3
ENVEN 608	Advanced Air Pollution Control	3
ENVEN 609	Industrial Waste Engineering & Management	3
ENVEN 610	GIS for Environmental Engineers	3
ENVEN 611	Application of Prediction Models in Environmental Engineering	3
ENVEN 612	Occupational Health and Safety	3
ENVEN 613	Hydroinformatics Engineering	3
ENVEN 614	Environmental Impacts Assessment	3
ENVEN 615	Advances in biological nutrient removal	3
ENVEN 616	Corrosion and Control	3
ENVEN 617	Environmental Management & Economics	3
ENVEN 618	Energy & Material Recovery from Solid Wastes	3
ENVEN 619	Sustainability in Developing Countries	3
ENVEN 620	Beneficial Use of Waste Materials	3
ENVEN 621	Environmental Biogeochemistry of Trace Metals	3
ENVEN 622	Advances in Noise Pollution & Control	3
ENVEN 623	The Science, Policy and Economics of Recycling	
ENVEN 624	Application of Sustainability Principles to Environmental Engineering Practice	3
ENVEN 625	Renewable Energy & Environment	3
ENVEN 626	Cleaner Production	3
ENVEN 627	Special Topics in Environmental Engineering	3
ENVEN 628	Dispersion Models in Air Pollution	3
ENVEN 629	Industrial Water & Wastewater Treatment	3
ENVEN 630	Groundwater and contaminated site remediation	3
ENVEN 631	Environmental Biotechnology	3
ENVEN 632	Green Processes	3
ENVEN 633	Air pollution monitoring & Assessment	3
ENVEN 649	Seminar I	3
ENVEN 650	Seminar II	3
ENVEN 651	Project	0
ENVEN 698	Thesis	6