



Ministry of Higher Education and
Scientific Research - Iraq

University of Warith Al_Anbiyaa....
College of Engineering
Oil and Gas Department



MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Engineering Ethics		Module Delivery
Module Type	Support		<input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	ENG106		
ECTS Credits	4		
SWL (hr/sem)	100		
Module Level	UGI	Semester of Delivery	
Administering Department	OGE	College	Engineering
Module Leader	Ali Khayoun Khalaf	e-mail	ali.kh@uowa.edu.iq
Module Leader's Acad. Title	Asst.Pro.	Module Leader's Qualification	Ph.D
Module Tutor	NA	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims أهداف المادة الدراسية	This course deals with the understanding and importance of integrity and responsible, ethical and scientific behavior towards engineering work and the most important associations concerned with these important topics and their impact on the future of engineering work
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"> 1- Develop the student's professional history and engineering development 2- Develop the student's the importance of professional behavior and a sense of responsibility 3- The most important professional associations and codes of ethics
Indicative Contents المحتويات الإرشادية	<p>Indicative content includes the following:</p> <p>Part I: Introduction</p> <ul style="list-style-type: none"> • Know why it is important to study engineering ethics • Understand the distinction between professional and personal ethics • See how ethical problem solving and engineering design are similar. <p>Part II : Professionalism and Codes of Ethics</p> <ul style="list-style-type: none"> • Determine whether engineering is a profession • Understand what codes of ethics are, and • Examine some codes of ethics of professional engineering societies. <p>Part III: Understanding Ethical Problems</p> <ul style="list-style-type: none"> • Discuss several ethical theories • See how these theories can be applied to engineering situations. <p>Part IV: Ethical Problem Solving Techniques</p> <ul style="list-style-type: none"> • Apply ethical problem solving methods to hypothetical and real cases • See how flow charting can be used to solve ethical problems • Learn what bribery is and how to avoid it.

	<p>Part V: Risk, Safety, and Accidents</p> <ul style="list-style-type: none"> • Know the definitions of risk and safety • Discover different factors that affect the perception of risk • Study the nature of accidents • Know how to ensure that your designs will be as safe as possible.
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Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	Teaching and learning strategies can include a range of whole class, group and individual activities to accommodate different abilities, skills, learning rates and styles that allow every student to participate and to achieve some degree of success.
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	52	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	3.5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	100		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects /	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	Midterm Exam	2 hr	10% (10)	7	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	The Profession of Engineering
Week 2	Professionalism and Codes of Ethics
Week 3	Personal VS. Professional Ethics
Week 4	Understanding Ethical Problems
Week 5	Ethical Theories
Week 6	Utilitarianism
Week 7	Types of Issues in Ethical Problem Solving
Week 8	Line Drawing
Week 9	Flow Charts
Week 10	Ethical Problem-Solving Techniques
Week 11	Risk, Safety, and Accidents.

Week 12	The Rights and Responsibilities of Engineers
Week 13	Ethics in Research and Experimentation
Week 14	Global Issues.
Week 15	Preparatory week before the final Exam
Week 16	Preparatory week before the final Exam



Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	<p>1- Michael E. Gorman, Matthew M. Mehalik, and Patricia H. Werhane, Ethical and Environmental Challenges to Engineering, Prentice Hall, Englewood Cliffs, NJ, 2000.</p> <p>2- Kenneth K. Humphreys, What Every Engineering Student Should Know About Ethics, Marcel Dekker, Inc., New York, 1999.</p> <p>3- John D. Kemper and Billy R. Sanders, Engineers and Their Profession, 5th ed., Oxford University Press, New York, 2001.</p> <p>4- Edmund G. Seebauer and Robert L. Barry, Fundamentals of Ethics for Scientists and Engineers, Oxford University Press, New York, 2001.</p>	

Recommended Texts	1- Joe Morgenstern, "The Fifty-nine Story Crisis," The New Yorker Magazine, May 29, 1995, p. 45. 2- Kenneth R. Foster and John E. Moulder, "Are Mobile Phones Safe?" IEEE Spectrum, August 2000, pp.23–28.
Websites	5- http://radburn.rutgers.edu/andrews/projects/ssit/default.htm 6- http://www.nspe.org/Ethics/EthicsResources/BER/index.html#2009

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.