نموذج وصف المقرر

١. اسم المقرر	
الادارة الهندسية والمكائن الانشائية	
٢. رمز المقرر	
٣. الفصل / السنة	
سنوي/٢٠٢٤	
٤. تاريخ إعداد هذا الوصف	
٢٠٢٤/٢/٤/٣٠	
٥. أشكال الحضور المتاحة	
٦. عدد الساعات الدراسية (الكلي)/ عدد الوحدات (الكلي)	
عدد الساعات الدراسية (الكلي)/١٢٠	
٧. اسم مسؤول المقرر الدراسي (اذا اكثر من اسم يذكر)	
الاسم: تحسين علي محيسن	
٨. اهداف المقرر	
اهداف المادة الدراسية	**التعرف على مفاهيم الادارة الهندسية بما في ذلك ادارة المكائن الانشائية وتطبيق هذه المفاهيم في حل المسائل الهندسية الخاصة بالأدارة الهندسية**
٩. استراتيجيات التعليم والتعلم	
الاستراتيجية	تعليم الادارة الهندسية – الجداول – الاقتصاد الهندسي –المكائن الانشائية مخرجات المقرر وطرائق التعليم والتعلم والتقييم ١- الأهداف المعرفية : أن يكون الطالب قارا على إن: استعمال مفاهيم الإدارة الهندسية في وضع نماذج هندسية للمسائل ومن ثم القيام بإيجاد الحلول لها ١. الأهداف المهاراتية الخاصة بالمقرر : أن يكون الطالب قارا على أن: التمثيل الجبري والبياني للنماذج الإدارية الهندسية واستعمالها في حل المسائل ٢. طرائق التعليم والتعلم أ- المحاضرات النظرية ب- مختبرات علمية ت- استخدام data show ث- المحاضرات العملية ٣. طرائق التقييم أ- الامتحانات اليومية ب- الامتحانات الفصلية والسنوية

ت- السمنارات
ث- الامتحانات العملية
٤. الأهداف الوحدانية والقيمية
أ- يلتزم بأخلاقيات المؤسسة التعليمية
ب- يعمل بروح الفريق
ت- يستقبل ويتقبل المعرفة
٥. طرائق التعليم والتعلم
أ- المحاضرات النظرية والعملية
ب- تدريب الطلبة في المختبرات التعليمية
٦. طرائق التقييم
أ- الامتحانات الفصلية والسنوية
ب- الامتحانات اليومية
ت- المهارات العامة والتأهيلية المنقولة (المهارات الأخرى المتعلقة بقابلية التوظيف والتطور الشخصي
ث- يكون مستعدا للعمل بجد وتفاني
ج- يغلب الرؤية العلمية على الشخصية
ح- يعمل على تطوير مهاراته المهنية
خ- يوسع نطاق تفكيره ويندمج بالمجتمع

١٠. بنية المقرر

الأسبوع	الساعات	مخرجات التعلم المطلوبة	اسم الوحدة او الموضوع	طريقة التعلم	طريقة التقييم
1	2	حضور الطلبة الى القاعة الدراسية اضافة الى pdf للاستفادة منها وفهم المادة	Introduction and historical review of 0 proje management. - Work breakdown structure ar management triangle theory	حضوري	حضور + امتحانات + واجبات صفية
2					
3	=	=	Work breakdown structure and management triangle theory.	=	=
4					
5	=	=	Critical path method (CPM): Calculation of activity durations, float time, calculation of critical path	=	=
6	=	=	Advantages and disadvantages and example	=	=
7					
8	=	=	Program (Project) evaluation and review technique (PERT): Calculation of activity m likely durations - Float time, calculation of critical path	=	=
9					
10	=	=	Advantages and disadvantages and example Description of activity durations, crantt chart as outline of critical path description	=	=
11	=	=	Advantages and disadvantages and example	=	=

=	=	Crashing time method, description - Advantages and disadvantages and exampl	=	=	12
=	=	Economical study on time value of money	=	=	13
					14
حضور + امتحانات + واجبات صفية	حضوري	Advantages an and examples	حضور الطلبة الى القاعة الدراسية اضافة الى pdf للاستفادة منها وفهم المادة	=	15
					16
=	=	Introduction ,the role of equipment's in 51 various projects and its important in econom constructions , the controlling of material an equipment's during construction stages .- Arrangement of machines records , regular a annual maintenance ,the factors affecting the efficiency during work	=	=	17
					18
=	=	The factors affecting the selection and owning of machines and calculating the working cost, the standard and special equipment's.	=	=	19
=	=	Excavation equipment's, hoes, dragline, trench , and tunnel excavators , types and work efficiency	=	=	20
					21
					22
=	=	Application and examples	=	=	21
					22
=	=	Road excavator equipment's , shovel, grader Bulldozer ,and scraper - Types , work efficiency , productivity	=	=	23
					24
=	=	Benefit and cost - Application and examples	=	=	25
=	=	Trucks , rear dump truck , bottom dump truck , their capacities and numbers ,the factors affecting their efficiency- Application and examples- Compactors, compactors with vibrators ,for clay soils , granular soils , asphalt layers , steel, sheep foot, and pneumatic rollers ,manual vibrating compactors ,action of compacting, methods of compacting different types of soils and asphalt , site laboratory tests.	=	=	26
					27
					28
=	=	Concrete mix plants, components and specifications, truck mixer and their	=	=	29

30			specifications, specification of aggregates ar cement and their test, concrete spreader at th site. Cranes, winch, lifting apparatus, fork cranes, jacks, multistory building cranes.		

١١. تقييم المقرر

توزيع الدرجة من ١٠٠ على وفق المهام المكلف بها الطالب مثل التحضير اليومي والامتحانات اليومية والشفوية والشهرية والتحريرية والتقارير .... الخ

١٢. مصادر التعلم والتدريس

الكتب المقررة المطلوبة (المنهجية أن وجدت)	• Construction Methods and Management / S.W. Nunnall
المراجع الرئيسة (المصادر)	1- Working & tools of builders / G .Barder . 2- Construction Planning , Equipment & Methods / R. L. Peurifoy & W. B .Ledbetter . 3- Project Planning & Control with PERT CPM / B.C. Punmia & K.K .Khandelnal.
الكتب والمراجع الساندة التي يوصى بها (المجلات العلمية، التقارير....)	• Construction Planning , Equipment & Methods / R. L. Peurifoy & W. B. Ledbetter .
المراجع الإلكترونية ، مواقع الانترنيت	• ndustrial management web sites Equipment web sites

Course Description Form

13. Course Name:
14. Course Code:
15. Semester / Year:
Annual/2024
16. Description Preparation Date:
2024/4/30
17. Available Attendance Forms:
18. Number of Credit Hours (Total) / Number of Units (Total)
Number of Credit Hours (Total) /120
19. Course administrator's name (mention all, if more than one name)
Name: Tahseen Ali Meheesn Email:
20. Course Objectives

Course Objectives	Learn about engineering management concepts, including machine management Structural and application of these concepts in solving special engineering problems In engineering management

21. Teaching and Learning Strategies

Strategy	Educating engineering management – tables – engineering economics – construction machinery Course outputs and methods of teaching, learning, and assessment 1. Cognitive Objectives: The student should be able to: Use concepts of engineering management in formulating engineering models for problems and then finding solutions for them. 2. Skills Objectives: The student should be able to: Algebraically and graphicall represent engineering management models and use them to solve problems. Teaching and Learning Methods: a) Theoretical lectures b) Scientific laboratories c) Use of data projectors d) Practical lectures

	3. Assessment Methods: a) Daily exams b) Semester and annual exams c) Seminars d. Practical exams 4. Unitary and Values Objectives: a) Adherence to the ethics of the educational institution b) Working with a team spirit c) Receiving and accepting knowledge 5. Teaching and Learning Methods: a) Theoretical and practical lectures b) Student training in educational laboratories 6. Assessment Methods: a) Semester and annual exams b) Daily exams c) General and transferable skills (other skills related to employability and personal development) d) Being prepared to work diligently and devotedly e) Scientific vision prevails over personality f) Working on developing professional skills g. Expanding one's thinking scope and integrating into society

7. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2			In presence	

2		Students attend the classroom in addition the PDF to benefit from it and underst and the material	Introduction and historical review of project management. - Work breakdown structure and manageme t triangle theory		presence+ Exams + class assignments
3	=	=	Work breakdown structure and management triangle theory.	=	=
4					
5	=	=	Critical path method (CPM): Calculation of activity durations, float time, calculation of critical path	=	=
6	=	=	Advantages and	=	=
7			disadvantages and examples		
8	=	=	Program (Project) evaluation and review technique (PERT): Calculation of activity most likely durations – Float time, calculation of critical path	=	=
9					
10	=	=	Advantages and disadvantages and examples - Description of activity durations, crantt chart as outline of critical path description	=	=
11	=	=	Advantages and disadvantages and examples	=	=
12	=	=	Crashing time method, description - Advantages and disadvantages and examples	=	=
13	=	=	Economical study on time value of money	=	=
14					
15	=			In presence	

16		Students attend the classroom in addition the PDF to benefit from it and underst and the material	Advantages an and examples t		presence+ Exams + class assignments
17 18	=	=	Introduction ,the role of equipment' in 51 various projects and its important in economic constructions , the controlling of material and equipment's during construction stages .- Arrangement of machines records , regular and annual maintenance ,the factors affecting the efficiency during work	=	=
19	=	=	The factors affecting the selection and owning of machines and calculating the working cost, the standard and special equipment's.	=	=
20 21 22	=	=	Excavation equipment's, hoes, dragline, trench , and tunnel excavators , types and work efficiency	=	=
21 22	=	=	Application and examples	=	=
23 24	=	=	Road excavator equipment's , shovel, grader – Bulldozer ,and scraper - Types , work efficiency , productivity	=	=
25	=	=	Benefit and cost - Application and examples	=	=
26 27	=	=	Trucks , rear dump truck , bottom dump truck , their capacities and		=

28			numbers ,the factors affecting their efficiency- Application and examples- Compactors, compactors with vibrators ,for clay soils , granular soils , asph layers , steel, sheep foot, and pneumatic rollers ,manual vibrating compactors,action of compacting ,methods of compacting different types of soils and asphalt, site laboratory tests.	=	
29 30	=	=	Concrete mix plants, components a specifications, truck mixer and their specifications, specification of aggregates and cement and their tes concrete spreader at the site. Cranes, winch, lifting apparatus, fork cranes, jacks, multistory buildi cranes.	=	=

8. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports.... etc

9. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Construction Methods and Management / S.W. Nunnally
Main references (sources)	1. Working & tools of builders / G .Barder . 2. Construction Planning , Equipment & Methods / R. L. Peurifoy & W. B .Ledbetter . 3. Project Planning & Control with PERT CPM / B.C. Punmia & K.K .Khandelnal.
Recommended books and references (scientific journals, reports…)	Construction Planning , Equipment & Methods / R. L. Peurifoy & W. B. Ledbetter .
Electronic References, Websites	industrial management web sites Equipment web sites