Program description				
Year / Level	Code of the course	Name of the course	Approved hours	
			Theoretical	Practical
First Level	METP125	سبائك معدنية	2	-
	METP121	ميكانيك علم الحركة	2	2
	NTU102	الحاسوب	1	1
	METP120	ميكانيك علم السكون اجباري)	2	2
	TIMO110	رياضيات /١	2	-
	TIMO111	رياضيات /٢	2	-
	NTU 101	اللغة الإنكليزية	2	-
	NTU 100	الديمقراطية وحقوق الانسان	2	-
	NTU 105	الرياضة	2	-
	METP122	القياسات واللحام	2	2
	METP123	السباكة	2	2
	METP126	رسم هندسي ثنائي الابعاد	3	-
	METP127	الرسم الهندسي ثلاثي الابعاد	3	-
	TIOM112	معامل ميكانيكية	6	-
	METP129	تكنولوجيا الكهرباء	2	1
	NTU 104	اللغة العربية	2	-
	METP131	التدريب الصيفي		-
	METP128	معامل متقدمة	6	-

Program description				
Year / Level	Code of the course	Name of the course	Code of the course	
			Theoretical	Practical
Second Level		تقنية أجزاء المكائن	2	-
	MTP207	اسس عمليات تصنيع	2	2
	MTP211	علم المعادن والبلورات	2	2
	MTP209	المعامل/٣		6
	NTU 204	اخلاقيات المهنة	2	-
	NTU 201	الحاسوب	1	1
	MTP213	رسم وسائل الربط الميكانيكية *	3	-
	NTU 203	جرائم نظام البعث في العراق	2	-
	TUDO203	مبادئ السلامة المهنية	2	-
	MTP218	انظمة الاتمتة وادوات الانتاج	2	2
	MTP206	تصميم مكائن *	2	-
	MTP208	عمليات تصنيع المعادن	2	2
	MTP212	خواص المعادن الفيزيائية	2	2
	MTP210	المعامل/٤	6	6
	MTP216	المشروع		-
	MTP214	رسم المسننات *		3
	TUDO204	الادارة الصناعية	2	-
	NTU202	اخلاقيات المهنة	2	_

2	٢	اللحام و تشكيل المعادن	MTP219	

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	2	Knowledge and Experimental application	Introduction	Theoretical lecture	Tests and reports
2	2	Knowledge and Experimental application	The atom, the element, types of bonds in engineering materials.	Theoretical lecture	Tests and reports
3	2	Knowledge and Experimental application	Crystalline and amorphous materials	Power point, Lecture	Tests and reports
4	2	Knowledge and Experimental application	Crystalline forms (H.C.P) (F.C.C) (B.C.C).	Power point, Lecture	Tests and reports
5	2	Knowledge and Experimental application	Mechanical properties of .materials (Stress, strain-strain-strain-flexion, ductility, collapse).	Power point, Lecture	Tests and reports
6	2	Knowledge and Experimental application	Hardness, hardness test.	Power point, Lecture	Tests and reports
7	2	Knowledge and Experimental application	Supplement.	Power point, Lecture	Tests and reports
8	2	Knowledge and Experimental application	Toughness, toughness test	Power point, Lecture	Tests and reports
9	2	Knowledge and Experimental application	Thermal properties of .materials (Thermal expansion, thermal conductivity)	Power point, Lecture	Tests and reports

10	2	Knowledge and Experimental application	Electrical properties of materials (ionic materials, insulating materials, metallic materials, factors affecting conductivity).	Power point, Lecture	Tests and reports
11	2	Knowledge and Experimental application	Magnetic properties of materials (Ferromagnetic materials, paramagnetic materials, diamagnetic materials, magnetic retardation, factors affecting magnetism).	Power point, Lecture	Tests and reports
12	2	Knowledge and Experimental application	Chemical properties of materials (Corrosion, electrochemical chain, oxidation)	Power point, Lecture	Tests and reports
13	2	Knowledge and Experimental application	Iron, its most important material, its extraction, blast furnace, and transformers.	Power point, Lecture	Tests and reports
14	2	Knowledge and Experimental application	Carbon steel, its most important types, properties, and uses.	Power point, Lecture	Tests and reports
15	2	Knowledge and Experimental application	Alloy steel, its most important types, properties, and uses	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	١. Available in the free section and library of the institute. ٢. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Metal alloys
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	First level
7. Date of production/revision of this specification	

8. Aims of the Course
Study the engineering properties of materials and amorphous and identify the mechanical properties of metals and alloys.

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding -A A1. Study the engineering properties of metal alloys and amorphous and identify the mechanical properties of metals and alloys. By studying the mechanical tests A2. A3. A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.

C. Thinking Skills

C1Carry out his duties on the job site with professional motives.

C2.ability to enhance and advance the information's in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problems. Carry out his duties on the job site with professional motives.

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	2	Knowledge and Experimental application	Cast iron, types, properties, uses	Power point, Lecture	Tests and reports
2	2	Knowledge and Experimental application	supplement	Power point, Lecture	Tests and reports
3	2	Knowledge and Experimental application	Copper, its alloys, properties, uses.	Power point, Lecture	Tests and reports
4	2	Knowledge and Experimental application	Aluminum, its alloys, properties, uses.	Power point, Lecture	Tests and reports
5	2	Knowledge and Experimental application	Nickel, its alloys, properties, uses	Power point, Lecture	Tests and reports
6	2	Knowledge and Experimental application	Tin, its alloys, properties, uses. Zinc, its alloys, properties, .uses Manganese, its alloys, properties, uses.	Power point, Lecture	Tests and reports
7	2	Knowledge and Experimental application	Other nonferrous alloys (white metals, bearings alloys)	Power point, Lecture	Tests and reports
8	2	Knowledge and Experimental application	Powder metallurgy (Methods for obtaining mineral powders, mechanical methods, physical and chemical methods, natural, mechanical, and chemical properties of powders.	Power point, Lecture	Tests and reports

9	2	Knowledge and Experimental application	Powder pressing, sintering process	Power point, Lecture	Tests and reports
10	2	Knowledge and Experimental application	Ceramic materials	Power point, Lecture	Tests and reports
11	2	Knowledge and Experimental application	Glass, types, manufacture, uses	Power point, Lecture	Tests and reports
12	2	Knowledge and Experimental application	Concrete, its industrial uses	Power point, Lecture	Tests and reports
13	2	Knowledge and Experimental application	Polymers, polymer molecules, polymers.	Power point, Lecture	Tests and reports
14	2	Knowledge and Experimental application	Properties and uses of plastics.	Power point, Lecture	Tests and reports
15	2	Knowledge and Experimental application	Supplement plastics.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٣. Available in the free section and library of the institute. ٤. Available in the free section and library of the institute.

Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Mathematics 1
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	First year
8. Date of production/revision of this specification	1/9/2023
9. Aims of the Course	

10· Learning Outcomes, Teaching, Learning and Assessment Method

Knowledge and Understanding -B A1. Study the engineering math theories of deferential methods that have a relation hip with mechanical projects A2. A3. A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.
C. Thinking Skills C1.Carry out his duties on the job site with professional motives. C2.ability to enhance and advance the information's in the specialism C3.the best usage of all available tools to get modern progress C4. Merge in universal and local education to put the suitable solutions for problems.
Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	2	Knowledge and Experimental application	Determinants and their properties. Solving simultaneous equations by the method of determinants (Cramer).	Theoretical lecture	Tests and reports
2	2	Knowledge and Experimental application	Determinants and their properties. Solving simultaneous equations by the method of determinants (Cramer).	Theoretical lecture	Tests and reports
3	2	Knowledge and Experimental application	Differentiation, Algebra of Derivatives, Multiple Functions	Power point, Lecture	Tests and reports
4	2	Knowledge and Experimental application	Differentiation, Algebra of Derivatives, Multiple Functions	Power point, Lecture	Tests and reports
5	2	Knowledge and Experimental application	Differentiation, Algebra of Derivatives, Multiple Functions	Power point, Lecture	Tests and reports
6	2	Knowledge and Experimental application	Trigonometric, logarithmic, exponential functions and their derivatives and implicit functions, chain rule.	Power point, Lecture	Tests and reports
7	2	Knowledge and Experimental application	Trigonometric, logarithmic, exponential functions and their derivatives and implicit functions, chain rule.	Power point, Lecture	Tests and reports
8	2	Knowledge and Experimental application	Trigonometric, logarithmic, exponential functions and their derivatives and implicit functions, chain rule.	Power point, Lecture	Tests and reports

9	2	Knowledge and Experimental application	Graphing functions, plotting the trigonometric function and the maxima and minima	Power point, Lecture	Tests and reports
10	2	Knowledge and Experimental application	Graphing functions, plotting the trigonometric function and the maxima and minima	Power point, Lecture	Tests and reports
11	2	Knowledge and Experimental application	Graphing functions, plotting the trigonometric function and the maxima and minima	Power point, Lecture	Tests and reports
12	2	Knowledge and Experimental application	Applications of physical differential, velocity and acceleration, and engineering differential applications	Power point, Lecture	Tests and reports
13	2	Knowledge and Experimental application	Applications of physical differential, velocity and acceleration, and engineering differential applications	Power point, Lecture	Tests and reports
14	2	Knowledge and Experimental application	Integral, laws, and its relationship to differentiation, definite and indeterminate integral.	Power point, Lecture	Tests and reports
15	2	Knowledge and Experimental application	Integral, laws, and its relationship to differentiation, definite and indeterminate integral.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٥. Available in the free section and library of the institute. ٦. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	

Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Mathematics 2
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	First year
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method

Knowledge and Understanding -C A1. Study the engineering math theories of integration methods that have a relation hip with mechanical projects A2. A3. A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.
C. Thinking Skills C1.Carry out his duties on the job site with professional motives. C2.ability to enhance and advance the information's in the specialism C3.the best usage of all available tools to get modern progress C4. Merge in universal and local education to put the suitable solutions for problems.
Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	2	Knowledge and Experimental application	Implicit integration, applications of geometric (areas and volumes) and physical integration	Power point, Lecture	Tests and reports
2	2	Knowledge and Experimental application	Implicit integration, applications of geometric (areas and volumes) and physical integration	Power point, Lecture	Tests and reports
3	2	Knowledge and Experimental application	Implicit integration, applications of geometric (areas and volumes) and physical integration	Power point, Lecture	Tests and reports
4	2	Knowledge and Experimental application	Implicit integration, applications of geometric (areas and volumes) and physical integration	Power point, Lecture	Tests and reports
5	2	Knowledge and Experimental application	General methods of integration, compensation, partial, and use of exponential and logarithmic partial fractions.	Power point, Lecture	Tests and reports
6	2	Knowledge and Experimental application	General methods of integration, compensation, partial, and use of exponential and logarithmic partial fractions.	Power point, Lecture	Tests and reports
7	2	Knowledge and Experimental application	Discrete, homogeneous, and linear differential equations with their different applications.	Power point, Lecture	Tests and reports
8	2	Knowledge and Experimental application	Discrete, homogeneous, and linear differential equations with their different applications.	Power point, Lecture	Tests and reports

9	2	Knowledge and Experimental application	Discrete, homogeneous, and linear differential equations with their different .applications	Power point, Lecture	Tests and reports
10	2	Knowledge and Experimental application	Discrete, homogeneous, and linear differential equations with their different .applications	Power point, Lecture	Tests and reports
11	2	Knowledge and Experimental application	Discrete, homogeneous, and linear differential equations with their different applications	Power point, Lecture	Tests and reports
12	2	Knowledge and Experimental application	Vectors (cross multiplication, quantification, angles .between vectors	Power point, Lecture	Tests and reports
13	2	Knowledge and Experimental application	Vectors (cross multiplication, quantification, angles between vectors.	Power point, Lecture	Tests and reports
14	2	Knowledge and Experimental application	Statistics (principles) and probability theory	Power point, Lecture	Tests and reports
15	2	Knowledge and Experimental application	Statistics (principles) and probability theory	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٧. Available in the free section and library of the institute. ٨. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	

Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Mechanical Workshop
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	curriculum
6. Semester/Year	First level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method

Knowledge and Understanding -D

A1. Practice at the workshop s of grinding carpentering welding and casting the most important principles of mechanical processes of fabrication and production.

A2.

A3.

A4.

B. Subject-specific skills

B1. Capability to manage projects

B2. The ability to solve problems on the job site and solve crises in this field

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

C. Thinking Skills

Carry out his duties on the job site with professional motives.

C2.ability to enhance and advance the information's in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problemsC1. Carry out his duties on the job site with professional motives.

4.
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)
D1. Improve their debating skills
D2. Raise their research perceptions and move the student from education to learning
D3.
D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	6	Knowledge and Experimental application	Basic principles in model carpentry, definition of wood species and their uses, types of patterns, their carpentry, .and their uses in plumbing Model correction, conditions that must be met in correcting the model, the shrinkage factor, an exercise in executive drawing of simple models with a single bound and without a .box Equipment used, hand tools and mechanical equipment used, thickening machine, tray saw, band saw, tapping machine, sanding machine, .transformer Practical training for parts hanger according to the operational drawing on the labels.	Theoretical lecture	Tests and reports
2	6	Knowledge and Experimental application	Training completion, model parts finishing and assembly methods, final dimensions	Theoretical lecture	Tests and reports
3	6	Knowledge and Experimental application	Compound Models: Explanation of Polynomials, Inner Spaces	Power point, Lecture	Tests and reports
4	6	Knowledge and Experimental application	Metal casting and its importance, the purpose of using castings in the industry, the contents of the plumbing unit, industrial safety precautions for casting, the formation of a sand mold for a one-piece model in front of	Power point, Lecture	Tests and reports

			students, the sands of molds and cores, their types and sources, properties of additives, mixing processes, and adjusting amounts, use of .sand mixer, sand treatment Sand mold forming by manual methods of one-piece model to form sand mold.		
5	6	Knowledge and Experimental application	Sand mold of a one-piece model with fixing outfall and elevators, metal smelting and casting, extraction, and cleaning of castings	Power point, Lecture	Tests and reports
6	6	Knowledge and Experimental application	Forming a sand mold like before, melting the metal into a mold, removing the cast and cleaning it	Power point, Lecture	Tests and reports
7	6	Knowledge and Experimental application	Casting sand molds in a productive way, training on the use of plumbing panels that contain more than one piece in one mold and with cores, methods of cleaning castings with brushes, files, grinding stones, steel balls, compressed air, rotating machines, reviewing and examining castings, identifying the apparent defects and their causes, Reviewing the dimensions of castings, and ensuring that they match the required dimensions.	Power point, Lecture	Tests and reports
8	6	Knowledge and Experimental application	Casting sand molds for corrugated and composite models. These exercises are among the exercises that the student will complete as they work in other laboratories.	Power point, Lecture	Tests and reports

9	6	Knowledge and Experimental application	Metal melting furnaces, types, characteristics, uses, rotary kiln, stirred, static furnaces	Power point, Lecture	Tests and reports
10	6	Knowledge and Experimental application	Industrial development -1 and the role of the refrigerator .from it The vernier foot of all -2 kinds. Methods of measurement with it. How to make a vernier that reads the altimeter with depths, the .vernier Shankara process -3 The basic surfaces, the number used, the materials for displaying the shock thorn, the just men, the men of the shankara, the guilt and the guilt, the right angle, the flowers of the shankara, the normal and sensitive shankars, the altimeter, the collector protractor and measuring angles, a practical exercise that combines the operations .of the shankara The files and the cold -4 process Types of files, their specifications, types, and methods of linking artifacts to their work.	Power point, Lecture	Tests and reports
11	6	Knowledge and Experimental application	The uses of files, the method of cleaning files, the cold process, an exercise on the .simple shankara and filo Chainsaw cutting Hand saw, saw weapon, fixing saw weapon, conditions to be	Power point, Lecture	Tests and reports

			met in sawing, chainsaw cutting exercise.		
12	6	Knowledge and Experimental application	Ionization process -1 Types of embryos, embryo notching and maintenance, types of hand hammer heads, method of fixing the hammer head, an exercise in the .ionization process The process of piercing - 2 and bulging Types of drills, types of primers, types of remers, how to perform the drilling and bulging process, an exercise in manual and mechanical drilling operations after performing the socket .operations The screws -3 Types of screws, internal and external dental schedules Training to perform various screwdriving operations.	Power point, Lecture	Tests and reports
13	6	Knowledge and Experimental application	Various training on the work of the filings.	Power point, Lecture	Tests and reports
14	6	Knowledge and Experimental application	The importance of maintenance for machinery and equipment, clarifying the periodic and comprehensive maintenance processes, and how to prepare maintenance reports	Power point, Lecture	Tests and reports
15	6	Knowledge and Experimental application	of sealants, sealants, .١ their uses, methods of fixing and removing	Power point, Lecture	Tests and reports

			them, and reviewing their work Types of valves, methods of operation, detection, and repair. ٢.		

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٩. Available in the free section and library of the institute. ١٠. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Advanced Mechanical Workshop

4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	First level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding -E A1. Study the engineering properties of materials and amorphous and identify the mechanical properties of metals and alloys by casting the raw materials in workshop identify the welding methods and procedures of welding types of grinding of metals with implementing training A2. A3. A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods

Quizzes; Midterm exam. And final exam.

C. Thinking Skills

Carry out his duties on the job site with professional motives.

C2.ability to enhance and advance the information's in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problemsC1. Carry out his duties on the job site with professional motives.

4.

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	6	Knowledge and Experimental application	Occupational safety and security precautions: gas welding, the equipment used and how to install and adjust them, the number of other auxiliaries and the gases used and their specifications, welding wires, types and measurements thereof, other auxiliary materials, welding equipment, types of flame and method of ignition and setting the required flame, workpieces rinsing and cleaning the edges required to be welded.	Power point, Lecture	Tests and reports
2	6	Knowledge and Experimental application	:Practical exercises Cross-surface welding, orthogonal surfaces, oblique surfaces, circle welding, longitudinal and transverse cutting	Power point, Lecture	Tests and reports
3	6	Knowledge and Experimental application	Welding equipment, practical training in the use of electric arc in welding various surfaces, equipment used, electrodes and their installation method, practical training	Power point, Lecture	Tests and reports
4	6	Knowledge and Experimental application	CO¬¬2 gas welding and gas cutting operations, equipment used and precautions to be met Doing exercises on welding workpieces using CO¬¬2 gas	Power point, Lecture	Tests and reports

5	6	Knowledge and Experimental application	Training in gas-shielded arc welding processes (Tig, Mig).	Power point, Lecture	Tests and reports
6	6	Knowledge and Experimental application	Assembly drills using various different cutting and welding processes.	Power point, Lecture	Tests and reports
7	6	Knowledge and Experimental application	Bending billet cutting equipment, rolling machine, manual grooving and tooling machine, manual billet use and bending, standard screwing, menu and drawing method, simple individuations, disconnected and incomplete actuators singularity calculation.	Power point, Lecture	Tests and reports
8	6	Knowledge and Experimental application	Training on calculating the single cross artifacts, doing an exercise for two crossed cylinders.	Power point, Lecture	Tests and reports
9	6	Knowledge and Experimental application	Sections of cone and minus cone	Power point, Lecture	Tests and reports
10	6	Knowledge and Experimental application	Lathe, specifications, uses, accessories, installation methods, lathe operation, types of lathe pens using each .of them	Power point, Lecture	Tests and reports
11	6	Knowledge and Experimental application	:Turning operations Flat turning, adjustment, center work, simple graduated exercise, use of measuring tools.	Power point, Lecture	Tests and reports
12	6	Knowledge and Experimental application	Lathing of the external stalk by different methods, explaining the laws for each method. Doing an exercise for the external lever	Power point, Lecture	Tests and reports

13	6	Knowledge and Experimental application	١. Work the different teeth externally (triangle) Do an exercise that includes the tooth of the triangle. ٢. The work of the tooth an external box and an exercise.	Power point, Lecture	Tests and reports
14	6	Knowledge and Experimental application	Cutting speeds, selection and use of their tables	Power point, Lecture	Tests and reports
15	6	Knowledge and Experimental application	Implementation of training on decentralized turning and use of quadruple sample.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	١١. Available in the free section and library of the institute. ١٢. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40

Maximum number of students	100

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Mechanics static
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	First year
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

Work to enhance the student's confidence in his engineering abilities and to crystallize his scientific and regular personality, which qualifies him after graduation to contribute effectively to community service.

9· Learning Outcomes, Teaching, Learning and Assessment Method

Knowledge and Understanding -F

A1. Study the engineering static loads affected at bodies and calculate the value of it and the direction of and analyses these forces and loads

A3.

A4.

B. Subject-specific skills

B1. Capability to manage projects

B2. The ability to solve problems on the job site and solve crises in this field

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

C. Thinking Skills

Carry out his duties on the job site with professional motives.

C2.ability to enhance and advance the information's in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problems

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	4	Knowledge and Experimental application	Static, fundamental concepts, Force, Scalars and, Vectors, Units , Force polygon , Cartesian Components .	Theoretical lecture	Tests and reports
2	4	Knowledge and Experimental application	Analysis of Forces	Theoretical lecture	Tests and reports
3	4	Knowledge and Experimental application	Resultant of Concurrent, Coplanar Force system (2-D)	Power point, Lecture	Tests and reports
4	4	Knowledge and Experimental application	Moments	Power point, Lecture	Tests and reports
5	4	Knowledge and Experimental application	Couples, transformation of the Couple and the force	Power point, Lecture	Tests and reports
6	4	Knowledge and Experimental application	Resultant of non –Concurrent, Coplanar force system (3-D) .	Power point, Lecture	Tests and reports
7	4	Knowledge and Experimental application	Equilibrium, free body diagram (F.B.D.)	Power point, Lecture	Tests and reports
8	4	Knowledge and Experimental application	Equilibrium Conditions (2-D)	Power point, Lecture	Tests and reports
9	4	Knowledge and Experimental application	Equilibrium Conditions (3-D)	Power point, Lecture	Tests and reports
10	4	Knowledge and Experimental application	Friction, Dry Friction	Power point, Lecture	Tests and reports

11	4	Knowledge and Experimental application	Center of Gravity, Centroid, Centroid of Simple area	Power point, Lecture	Tests and reports
12	4	Knowledge and Experimental application	Centroids of Composite areas.	Power point, Lecture	Tests and reports
13	4	Knowledge and Experimental application	Moment of inertia (Simple and Composite areas).	Power point, Lecture	Tests and reports
14	4	Knowledge and Experimental application	2-Dynamics type of motion, Linear motion with constant speed .	Power point, Lecture	Tests and reports
15	4	Knowledge and Experimental application	Linear motion with Constant acceleration.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	١٣. Available in the free section and library of the institute. ١٤. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	

Minimum number of students	40
Maximum number of students	100

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Mechanics dynamic
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	First year
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	
Work to enhance the student's confidence in his engineering abilities and to crystallize his scientific and regular personality, which qualifies him after graduation to contribute effectively to community service.	

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding -G A1. Study the engineering dynamic loads affected the bodies and calculate these loads value A3. A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field

Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.
C. Thinking Skills Carry out his duties on the job site with professional motives. C2.ability to enhance and advance the information's in the specialism C3.the best usage of all available tools to get modern progress C4. Merge in universal and local education to put the suitable solutions for problems
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	4	Knowledge and Experimental application	Newton's Second Law	Power point, Lecture	Tests and reports
2	4	Knowledge and Experimental application	Curvilinear motion	Power point, Lecture	Tests and reports
3	4	Knowledge and Experimental application	Angular motion, Relative Motion.	Power point, Lecture	Tests and reports
4	4	Knowledge and Experimental application	Work, Energy, Power	Power point, Lecture	Tests and reports
5	4	Knowledge and Experimental application	3-Strength of material: Fundamental concept, Loads, Stress, Strain , Elasticity , Plasticity, Deformation .	Power point, Lecture	Tests and reports
6	4	Knowledge and Experimental application	Hook's Law, Stress -strain curve, type of stress .	Power point, Lecture	Tests and reports
7	4	Knowledge and Experimental application	Normal stress due to an axial load on 1-Uniformam Cross section area 2- Variable cross section area .	Power point, Lecture	Tests and reports
8	4	Knowledge and Experimental application	Shear Stress	Power point, Lecture	Tests and reports
9	4	Knowledge and Experimental application	Torsional Stress	Power point, Lecture	Tests and reports
10	4	Knowledge and Experimental application	Thermal Stress	Power point, Lecture	Tests and reports

11	4	Knowledge and Experimental application	Beams, types of loads , types of beams .	Power point, Lecture	Tests and reports
12	4	Knowledge and Experimental application	Shear force (S.F.) & bending moment (B.M.) of Simple supported beam under an –axial load .	Power point, Lecture	Tests and reports
13	4	Knowledge and Experimental application	Shear force (S.F.) & bending moment (B.M.) of Simple supported beam under uniform distributed Load .	Power point, Lecture	Tests and reports
14	4	Knowledge and Experimental application	Shear force (S.F.) & bending moment (B.M.) of cantilever beam under an –axial load .	Power point, Lecture	Tests and reports
15	4	Knowledge and Experimental application	Shear force (S.F.) & bending moment (B.M.) of cantilever beam under uniform distributed Load .	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	١٥. Available in the free section and library of the institute. ١٦. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions

Pre-requisites	
Minimum number of students	40
Maximum number of students	100

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Human rights and democracy
4. Program(s) to which it contributes	Seminar, Website, Internet

5. Modes of Attendance offered	curriculum
6. Semester/Year	First level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding -H A1. Achieve the progress for all people and protect the personal freedom A3.protect the human freedom for person and achieve the justice and equally between all A4.
B. Subject-specific skills B1. Capability to manage projects and cooperation between people and governorate B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.

C. Thinking Skills

Carry out his duties on the job site with professional motives.

C2.ability to enhance and advance the information's in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problems.

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	2	Knowledge and Experimental application	Human rights - their definition - their goals	Theoretical lecture	Tests and reports
2	2	Knowledge and Experimental application	The Roots and Development of Human Rights in Human History - Human Rights in Antiquity and the Middle Ages	Theoretical lecture	Tests and reports
3	2	Knowledge and Experimental application	Human rights in ancient civilizations, especially the Mesopotamian civilization	Power point, Lecture	Tests and reports
4	2	Knowledge and Experimental application	Human rights in the divine laws with a focus on human rights in Islam.	Power point, Lecture	Tests and reports
5	2	Knowledge and Experimental application	Medieval human rights: human rights in doctrines, schools and political theories - Human rights in companies and their declarations, revolutions and constitutions (English documents - American Revolution - French Revolution - Russian Revolution)	Power point, Lecture	Tests and reports
6	2	Knowledge and Experimental application	Human Rights in Contemporary and Modern History - International recognition of human rights since the First World War and disobedience - the United Nations)	Power point, Lecture	Tests and reports
7	2	Knowledge and Experimental application	Regional recognition of human rights - European Convention on Human Rights 1950 - American Convention on Human Rights 1969 - African	Power point, Lecture	Tests and reports

			Charter on Human Rights 1981 - Arab Charter on Human Rights 1994.		
8	2	Knowledge and Experimental application	Non-governmental organizations and human rights (International Committee of the Red Cross - Amnesty International - Human Rights Watch)	Power point, Lecture	Tests and reports
9	2	Knowledge and Experimental application	National human rights organizations	Power point, Lecture	Tests and reports
10	2	Knowledge and Experimental application	Human rights in Iraqi constitutions between theory and reality	Power point, Lecture	Tests and reports
11	2	Knowledge and Experimental application	The relationship between human rights and public freedoms: 1- In the Universal Declaration of Human Rights. 2- In regional charters and national constitutions.	Power point, Lecture	Tests and reports
12	2	Knowledge and Experimental application	The relationship between human rights and public freedoms: 1- In the Universal Declaration of Human Rights. 2- In regional charters and national constitutions.	Power point, Lecture	Tests and reports
13	2	Knowledge and Experimental application	Essential human rights and collective human rights.	Power point, Lecture	Tests and reports
14	2	Knowledge and Experimental application	Economic, social, and cultural human rights, civil and political human rights	Power point, Lecture	Tests and reports

15	2	Knowledge and Experimental application	Modern human rights: facts in development - the right to a clean environment - the right to true solidarity.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	١٧. Available in the free section and library of the institute. ١٨. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Engineering Drawing 2 dimensions
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	First year
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method

Knowledge and Understanding -I

A1. Study the engineering drawings and design parts using AutoCAD program

A3.draw parts of 2 dimensions as first step to draw using AutoCAD

A4.

B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.
C. Thinking Skills Carry out his duties on the job site with professional motives. C2.ability to enhance and advance the information's in the specialism C3.the best usage of all available tools to get modern progress C4. Merge in universal and local education to put the suitable solutions for problems.
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	3	Knowledge and Experimental application	The importance of engineering drawing, the importance of using the computer to implement the engineering drawing, the sizes of standard drawing boards, an overview of the AutoCAD program	Theoretical lecture	Tests and reports
2	3	Knowledge and Experimental application	Preparation for drawing using the Title Block computer	Theoretical lecture	Tests and reports
3	3	Knowledge and Experimental application	Drawing geometric shapes using the computer	Power point, Lecture	Tests and reports
4	3	Knowledge and Experimental application	Graphic adjustments, CAD aids	Power point, Lecture	Tests and reports
5	3	Knowledge and Experimental application	Graphic adjustments, CAD aids	Power point, Lecture	Tests and reports
6	3	Knowledge and Experimental application	Perspective drawing, a perspective drawing containing a circle represented by an oval.	Power point, Lecture	Tests and reports
7	3	Knowledge and Experimental application	Perspective drawing, a perspective drawing containing a circle represented by an oval	Power point, Lecture	Tests and reports
8	3	Knowledge and Experimental application	Perspective drawing, a perspective drawing containing a circle represented by an oval	Power point, Lecture	Tests and reports

9	3	Knowledge and Experimental application	Perspective drawing, a perspective drawing containing a circle represented by an oval	Power point, Lecture	Tests and reports
10	3	Knowledge and Experimental application	Projection theory, simplified projection	Power point, Lecture	Tests and reports
11	3	Knowledge and Experimental application	Projection theory, simplified projection	Power point, Lecture	Tests and reports
12	3	Knowledge and Experimental application	Principal projections, even angles, drawing according to the theory of the first even projection angle, drawing according to the theory of the third even projection angle.	Power point, Lecture	Tests and reports
13	3	Knowledge and Experimental application	Principal projections, even angles, drawing according to the theory of the first even projection angle, drawing according to the theory of the third even projection angle.	Power point, Lecture	Tests and reports
14	3	Knowledge and Experimental application	Principal projections, even angles, drawing according to the theory of the first even projection angle, drawing according to the theory of the third even projection angle.	Power point, Lecture	Tests and reports
15	3	Knowledge and Experimental application	Principal projections, even angles, drawing according to the theory of the first even projection angle, drawing according to the theory of the third even projection angle.	Power point, Lecture	Tests and reports

12. Infrastructure

Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	١٩. Available in the free section and library of the institute. ٢٠. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Engineering Drawing 3 dimensions
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	First year
7. Date of production/revision of this specification	1/9/2023

8. Aims of the Course

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding -J A1. Study the engineering drawings and design parts using AutoCAD program A2.draw parts of 3 dimensions as first step to draw using AutoCAD A3. Assembling parts using side front up views of drawing
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.
C. Thinking Skills Carry out his duties on the job site with professional motives. C2.ability to enhance and advance the information's in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problems.

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	3	Knowledge and Experimental application	Draw the three principal projections with the even angle and note the difference between them.	Power point, Lecture	Tests and reports
2	3	Knowledge and Experimental application	Draw the three principal projections with the even angle and note the difference between them.	Power point, Lecture	Tests and reports
3	3	Knowledge and Experimental application	Deduction of the third projection from the two projections	Power point, Lecture	Tests and reports
4	3	Knowledge and Experimental application	Deduction of the third projection from the two projections	Power point, Lecture	Tests and reports
5	3	Knowledge and Experimental application	Deduce the perspective from two or three projections.	Power point, Lecture	Tests and reports
6	3	Knowledge and Experimental application	Deduce the perspective from two or three projections.	Power point, Lecture	Tests and reports
7	3	Knowledge and Experimental application	Cutting theory, cutting shapes and lines by type of material, cutting projections.	Power point, Lecture	Tests and reports
8	3	Knowledge and Experimental application	Cutting theory, cutting shapes and lines by type of material, cutting projections.	Power point, Lecture	Tests and reports
9	3	Knowledge and Experimental application	A drawing of projections cut from one specific location	Power point, Lecture	Tests and reports
10	3	Knowledge and Experimental application	A drawing of projections cut from one specific location	Power point, Lecture	Tests and reports

11	3	Knowledge and Experimental application	Partially cut Muscat fee	Power point, Lecture	Tests and reports
12	3	Knowledge and Experimental application	Partially cut Muscat fee	Power point, Lecture	Tests and reports
13	3	Knowledge and Experimental application	Draw a half-cut cross section, draw zigzag sections.	Power point, Lecture	Tests and reports
14	3	Knowledge and Experimental application	Draw a half-cut cross section, draw zigzag sections.	Power point, Lecture	Tests and reports
15	3	Knowledge and Experimental application	Draw a half-cut cross section, draw zigzag sections.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	۲۱. Available in the free section and library of the institute. ۲۲. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions

Pre-requisites	
Minimum number of students	40
Maximum number of students	100

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Electrical technology
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	First level
7. Date of production/revision of this specification	1/9/2023

8. Aims of the Course

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding -K A1. Study the electrical circles and repairing the damages of must electrical apparatus A2.oms law A3.units of electric laws and electric ,voltage that used in calculations A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.

C. Thinking Skills

Carry out his duties on the job site with professional motives.

C2.ability to enhance and advance the information's in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problems

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	3	Knowledge and Experimental application	First - the basics of electricity	Theoretical lecture	Tests and reports
2	3	Knowledge and Experimental application	Electrical units and symbols, simple circuit, current strength of electric driving force.	Theoretical lecture	Tests and reports
3	3	Knowledge and Experimental application	Potential difference, Ohm's law, methods of connecting resistors (series, parallel, compound)	Power point, Lecture	Tests and reports
4	3	Knowledge and Experimental application	Practical examples of solving electrical circuits.	Power point, Lecture	Tests and reports
5	3	Knowledge and Experimental application	Second: alternating (variable) current	Power point, Lecture	Tests and reports
6	3	Knowledge and Experimental application	Methods for obtaining alternating current, types of electric power plants.	Power point, Lecture	Tests and reports
7	3	Knowledge and Experimental application	Sine wave, waveform of current with time, frequency, definition of effective value of alternating current and voltage	Power point, Lecture	Tests and reports
8	3	Knowledge and Experimental application	Knowledge of power factor and functions, applications and examples of the use of alternating current in practical life.	Power point, Lecture	Tests and reports
9	3	Knowledge and Experimental application	Third: electromagnetism	Power point, Lecture	Tests and reports

10	3	Knowledge and Experimental application	Magnetic field, field properties, magnetic properties, types of magnetic materials, definitions of (field density, field strength, magnetic momentum).	Power point, Lecture	Tests and reports
11	3	Knowledge and Experimental application	The magnetic effect of electric current Applications to the use of the magnetic attraction force.	Power point, Lecture	Tests and reports
12	3	Knowledge and Experimental application	Fourth: the alternating current has three sides	Power point, Lecture	Tests and reports
13	3	Knowledge and Experimental application	Single-sided alternating current, three-phase alternating current, faceted identification method, external overall wiring system.	Power point, Lecture	Tests and reports
14	3	Knowledge and Experimental application	Star (Y) connection method, face current and line current from star, face voltage and line voltage from star, power in the case of a three-phase system, method for conducting electrical loads.	Power point, Lecture	Tests and reports
15	3	Knowledge and Experimental application	Delta () connection method, face current and line current in the case of delta face and line voltage, power Applications and examples of star and delta connection.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS	٢٣. Available in the free section and library of the institute. ٢٤. Available in the free section and library of the institute.

· OTHER	
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Computer
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	First level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding -L A1. Study the basic programs of office excel power point A3.parts of computer A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods
Quizzes; Midterm exam. And final exam.
C. Thinking Skills Carry out his duties on the job site with professional motives. C2.ability to enhance and advance the information's in the specialism C3.the best usage of all available tools to get modern progress C4. Merge in universal and local education to put the suitable solutions for problems.
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	3	Knowledge and Experimental application	An introduction to computers: their generations, their components: hardware and software (system software and application software).	Theoretical lecture	Tests and reports
2+3	3	Knowledge and Experimental application	Windows operating system: the concept of the Windows system, its features and basic requirements, the operation of the system, the components of the main desktop screen, the concept of the icon Icon	Theoretical lecture	Tests and reports
4		Knowledge and Experimental application	The method of dealing with mouse activities The importance and components of the Taskbar, the use of Start to enter the programs, the concept of loaded tasks, exit from the system Shut Down .Calculator is turned off	Power point, Lecture	Tests and reports
5		Knowledge and Experimental application	The concept of the window for any program and identifying its main components, dealing with desktop icons such as (My Document; My Computer; .(Recycle Bin	Power point, Lecture	Tests and reports
6		Knowledge and Experimental application	Learn about My Computer * in terms of disks, folders and the file and how to deal with creating floppy disks, copying folders and files, dealing with the recycle bin, and how to	Power point, Lecture	Tests and reports

			delete and retrieve files through what is provided by the recycle bin from this .aspect		
7		Knowledge and Experimental application	* Take advantage of the Control Panel programs such as the Mouse icon and the control icon in the screen saver and change the appearance of the background of the desktop and the Program in adding and .removing programs	Power point, Lecture	Tests and reports
8		Knowledge and Experimental application	* Take advantage of the Run option in executing the programs appropriately, as well as switching to the system signal (Ms-Dos) and dealing with its commands	Power point, Lecture	Tests and reports
9		Knowledge and Experimental application	* Using entertainment programs such as (Window .Media player) to play movies	Power point, Lecture	Tests and reports
10		Knowledge and Experimental application	* Take advantage of the additional programs (Accessories) such as the calculator (Calculater	Power point, Lecture	Tests and reports
11-12		Knowledge and Experimental application	* Dealing with the drawing program (Paint) in creating, saving and retrieving drawings through the commands it provides	Power point, Lecture	Tests and reports
13-14		Knowledge and Experimental application	* Dealing with the notes window (Notpad; Wordpad) in writing, saving, retrieving and printing texts, and changing	Power point, Lecture	Tests and reports

			the style and formatting of its printing.		
15		Knowledge and Experimental application	* Know how to get help and its various methods.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٢٥. Available in the free section and library of the institute. ٢٦. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Parts Techniques
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	second level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method

A-Knowledge and Understanding

A1. Study the engineering and mechanical parts

A2.machine parts aims to explain the role of mechanical parts through machine System, the relation links them, how to conduct some calculations to design these parts and to specify all factors that are affected

A3.

A4.

B. Subject-specific skills

B1. Capability to manage projects

B2. The ability to solve problems on the job site and solve crises in this field

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

C. Thinking Skills

Carry out his duties on the job site with professional motives.

C2.ability to enhance and advance the information’s in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problems.
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)
D1. Improve their debating skills
D2. Raise their research perceptions and move the student from education to learning
D3.
D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	2	Knowledge and Experimental application	Review of Strength of Materials	Theoretical lecture	Tests and reports
2+3	2	Knowledge and Experimental application	Riveted Joints. Types of Riveted Joints, Design of Riveted Joints, Efficiency of Riveted Joints .	Theoretical lecture	Tests and reports
4+5	2	Knowledge and Experimental application	Welded Joint Types of welding Joints, Design of welding Joints	Power point, Lecture	Tests and reports
6+7	2	Knowledge and Experimental application	Screwed Joints, Design of Bolts for Fastening, Design of Bolts for Power Transition .	Power point, Lecture	Tests and reports
8+9	2	Knowledge and Experimental application	Keyed Joints, Types of Keys, Design of Sunk Key.	Power point, Lecture	Tests and reports
10+11	2	Knowledge and Experimental application	Frictional Clutches, Type of Frictional Clutches, Design of Frictional Clutches.	Power point, Lecture	Tests and reports
12+13	2	Knowledge and Experimental application	Types of Springs, Design of Springs	Power point, Lecture	Tests and reports
14+15	2	Knowledge and Experimental application	Types of Belts, Design of Belts.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS	٢٧. Available in the free section and library of the institute. ٢٨. Available in the free section and library of the institute.

· OTHER	
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Machine design
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	second level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method

A-Knowledge and Understanding

A1. Study the engineering and designing of machines

A2.machine parts aims to explain the role of mechanical parts through machine System, the relation links them, how to conduct some calculations to design these parts and to specify all factors that are affected

A3.

A4.

B. Subject-specific skills

B1. Capability to manage projects

B2. The ability to solve problems on the job site and solve crises in this field

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

C. Thinking Skills

Carry out his duties on the job site with professional motives.

C2.ability to enhance and advance the information's in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problems.

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1-2	2	Knowledge and Experimental application	Design of Shafts	Power point, Lecture	Tests and reports
3-4	2	Knowledge and Experimental application	Design of Journal Bearings	Power point, Lecture	Tests and reports
5	2	Knowledge and Experimental application	Selection of Ball Bearings	Power point, Lecture	Tests and reports
6-7	2	Knowledge and Experimental application	Design of Gears by Lewis Equation	Power point, Lecture	Tests and reports
8-9	2	Knowledge and Experimental application	Gears Trains	Power point, Lecture	Tests and reports
10-11	2	Knowledge and Experimental application	Design of Simple Gears Box	Power point, Lecture	Tests and reports
12-13	2	Knowledge and Experimental application	Worm Gears	Power point, Lecture	Tests and reports
14-15	2	Knowledge and Experimental application	Cams	Power point, Lecture	Tests and reports

12. Infrastructure

Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٢٩. Available in the free section and library of the institute. ٣٠. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Basics of Manufacturing process
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	Second level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method

Knowledge and Understanding -M

A1. Analysis the processes of operations elements

A2.set the technology loop of production units

A3.emplement the working card

A4.

B. Subject-specific skills

B1. Capability to manage projects

B2. The ability to solve problems on the job site and solve crises in this field

Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.
C. Thinking Skills Carry out his duties on the job site with professional motives. C2.ability to enhance and advance the information's in the specialism C3.the best usage of all available tools to get modern progress C4. Merge in universal and local education to put the suitable solutions for problems.
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	3	Knowledge and Experimental application	Geometric tolerances, pairings, systems of duplications, orders of tolerances, units of duality, basic deviations,	Theoretical lecture	Tests and reports
2	3	Knowledge and Experimental application	Types of tolerances, punching platform, column platform, codes of duplications, tolerances for loose dimensions, detailed duplications, choice of duplications and their economic advantages.	Theoretical lecture	Tests and reports
3	3	Knowledge and Experimental application	Geometric tolerances in shape and position and types of shape and position tolerances.	Power point, Lecture	Tests and reports
4	3	Knowledge and Experimental application	Measurement parameters, design of measurement parameters, types of measurement parameters (internal measurement parameters, external measurement parameters, adjustable measurement parameters, solid measurement parameters, special measurement parameters).	Power point, Lecture	Tests and reports
5	3	Knowledge and Experimental application	Classification of metalworking, metalworking, an introduction to the theory of reich formation and influencing factors, methods of fixing artifacts, including round and non-round, used cutting edges and longitudinal and transverse feed arrows.	Power point, Lecture	Tests and reports

6	3	Knowledge and Experimental application	Learn about the used pens and how to install them for the crafts, lathing pens.	Power point, Lecture	Tests and reports
7	3	Knowledge and Experimental application	Knowing the types of corners of the lathing pens, the effect of the corners of the lathing pen on the cutting process, the types of metal for the lathing pens, the conditions of cutting, the elements of the pieces, the uses of the cutting speeds, the use of tables and speed maps, the classification of several pieces in relation to the methods of operation and the number of cutting edges.	Power point, Lecture	Tests and reports
8	3	Knowledge and Experimental application	The cutting boundary, the emerging cutoff limit and the theory of its composition, the factors affecting it, the factors that lead to reducing its size, cooling and its importance for cutting operations, various cooling fluids.	Power point, Lecture	Tests and reports
9	3	Knowledge and Experimental application	How to make the operating card for a group of operations and calculate its elements and calculate the cutting time for each process	Power point, Lecture	Tests and reports
10	3	Knowledge and Experimental application	How to take advantage of the sequence card to create a product path through the different units.	Power point, Lecture	Tests and reports
11	3	Knowledge and Experimental application	The factors that affect the selection of the cutting speed (1- the influence of the properties of the cutting tool, 2- the influence of the operating elements, 3- the	Power point, Lecture	Tests and reports

			effect of the properties of the working metal.		
12	3	Knowledge and Experimental application	Automatic turret lathe machines, studying the processes that can be operated and analyzing the processes on the product, how to prepare operating cards.	Power point, Lecture	Tests and reports
13	3	Knowledge and Experimental application	The types of numbers used and their arrangement on the hexagonal head, front and back quadrant.	Power point, Lecture	Tests and reports
14	3	Knowledge and Experimental application	Study how to program automatic programd lathes and the factors affecting operating steps.	Power point, Lecture	Tests and reports
15	3	Knowledge and Experimental application	Milling, identifying the operations that can be performed on milling machines, the parts and components of horizontal and vertical milling machines and the nature of the work of each part.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٣١. Available in the free section and library of the institute. ٣٢. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest	

Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Metal fabrication process
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	Second level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method

Knowledge and Understanding -N A1. Analysis the processes of operations elements A2.set the technology loop of production units A3.emplement the working card A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.
C. Thinking Skills Carry out his duties on the job site with professional motives. C2.ability to enhance and advance the information's in the specialism C3.the best usage of all available tools to get modern progress C4. Merge in universal and local education to put the suitable solutions for problems.

Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)
D1. Improve their debating skills
D2. Raise their research perceptions and move the student from education to learning
D3.
D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	3	Knowledge and Experimental application	Machine accessories, division heads, tools for connecting artifacts, mandrels, and bushes.	Power point, Lecture	Tests and reports
2	3	Knowledge and Experimental application	Kinds of milling knives (disc and fingerless), gear-brightening knives, angle milling knives.	Power point, Lecture	Tests and reports
3	3	Knowledge and Experimental application	Explanation of the steps of the milling operations, the selection of the appropriate machine, the initial dimensions of the artifacts, the methods of linking the artifacts	Power point, Lecture	Tests and reports
4	3	Knowledge and Experimental application	Milling of different types of gears (just, bevel, helical, worm gears)	Power point, Lecture	Tests and reports
5	3	Knowledge and Experimental application	The way the dovetail dovetail works, the letter V-block interlock.	Power point, Lecture	Tests and reports
6	3	Knowledge and Experimental application	Operating rates, cutting and feeding speeds, and the basis for selecting them for the following different milling operations).	Power point, Lecture	Tests and reports
7	3	Knowledge and Experimental application	Skimming: introducing the types of planers (cart, fluffer, vertical) the operations that take place on the skimming machine, the operating capabilities available for each machine, methods of linking the artifacts.	Power point, Lecture	Tests and reports

8	3	Knowledge and Experimental application	Operating rates such as cutting and feeding speeds, attachments of scrapers such as dividing heads or special devices, angles of scraping pens, types of forces acting on them.	Power point, Lecture	Tests and reports
9	3	Knowledge and Experimental application	Skimming planer, clarification of (cutting stroke, return stroke), connection methods on the skimming planer machine and operating rates, calculating the cutting time for skimming, numbers of the .skimming sequence card	Power point, Lecture	Tests and reports
10	3	Knowledge and Experimental application	Grinding: Introduction to the theory of cutting and the shape of the feather in the grinding process, the grinding stones used (peripheral, facet, lateral, cup, external, internal), their specifications and uses, connecting methods .and their balances	Power point, Lecture	Tests and reports
11	3	Knowledge and Experimental application	Different grinding machines and operating capabilities for each type (internal and external cylindrical grinding machines, number grinding machines).	Power point, Lecture	Tests and reports
12	3	Knowledge and Experimental application	Preparing a comprehensive operating card for all cutting .operations	Power point, Lecture	Tests and reports
13	3	Knowledge and Experimental application	Metal Formation: Formation Theory, Foundations of Hot and Cold Forming, Types of Forming.	Power point, Lecture	Tests and reports
14	3	Knowledge and Experimental application	Rolling: the basics and methods of rolling, the rolled products, the sequence of	Power point, Lecture	Tests and reports

			processes in the rolling mill, the machines used, the conditions for completing the rolling process. Extrusion: Foundations of metal and metal extrusion used, direct extrusion, reverse extrusion, kinds of extrusion products.		
15	3	Knowledge and Experimental application	Shearing and punching: Principles of shearing operations, types of dies and parts thereof, in each case, dimensions of the raw material and methods of selection, calculation of shear strength. (Deep clouds and clouds): the foundations of deep drawing and drawing processes, calculating drag forces and special ratios in each case, types of clouds and their uses.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٣٣. Available in the free section and library of the institute. ٣٤. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Mineralogy and crystallography
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum

6. Semester/Year	second level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	
Study the engineering properties of materials and amorphous and identify the mechanical properties of metals and alloys.	

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding -O A1.explain the materials and its properties A2.the use of all lab apparatuses to examine and test the metal properties A3.the deference between metals properties A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.

C. Thinking Skills

Carry out his duties on the job site with professional motives.

C2.ability to enhance and advance the information's in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problems.

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	3	Knowledge and Experimental application	Definition of metallurgy, crystallization, dendritic crystallization, the effect of cooling rate on the structure of minerals.	Theoretical lecture	Tests and reports
2	3	Knowledge and Experimental application	Mineral block installation (cast freezing) Common casting defects.	Theoretical lecture	Tests and reports
3	3	Knowledge and Experimental application	Coefficient of atomic crowding, crystalline trends, crystalline levels, and entrainment phenomena.	Power point, Lecture	Tests and reports
4	3	Knowledge and Experimental application	Crystal lattice defects, point, linear.	Power point, Lecture	Tests and reports
5	3	Knowledge and Experimental application	Flexible and plastic forming (sliding, twinning)	Power point, Lecture	Tests and reports
6	3	Knowledge and Experimental application	Effective hardening, cold forming, hot forming.	Power point, Lecture	Tests and reports
7	3	Knowledge and Experimental application	Restoration, recrystallization, crystal growth.	Power point, Lecture	Tests and reports
8	3	Knowledge and Experimental application	Stress curves, strain in bending, tidal, fracture, types of fracture, wandering from ductile fracture to brittle.	Power point, Lecture	Tests and reports
9	3	Knowledge and Experimental application	Fatigue, mechanism of fatigue, factors affecting fatigue limit, fatigue resistance materials.	Power point, Lecture	Tests and reports

10	3	Knowledge and Experimental application	Creep, creep occurrence mechanism, creep-resistant material.	Power point, Lecture	Tests and reports
11	3	Knowledge and Experimental application	Composite, phase, solid solution, order, equilibrium, alloy formation, mechanical mixture, eutectic.	Power point, Lecture	Tests and reports
12	3	Knowledge and Experimental application		Power point, Lecture	Tests and reports
13	3	Knowledge and Experimental application	Thermal equilibrium diagram for fully dissolved dual system in liquid and solid state, Thermal equilibrium diagram for fully dissolved dual system in liquid and insoluble state in solid state (aiotic).	Power point, Lecture	Tests and reports
14	3	Knowledge and Experimental application	Thermal equilibrium diagram of a fully soluble binary soluble finite system	Power point, Lecture	Tests and reports
15	3	Knowledge and Experimental application	Thermal stability diagram of a fully dissolved dual system in the liquid state, forming a chemical compound upon freezing.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٣٥. Available in the free section and library of the institute. ٣٦. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	

Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Physical properties of metals
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	second level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	
.explain the materials and its properties .the use of all lab apparatuses to examine and test the metal properties .the deference between metals properties	

9· Learning Outcomes, Teaching, Learning and Assessment Method

Knowledge and Understanding -P A1. A1.explain the materials and its properties A2.the use of all lab apparatuses to examine and test the metal properties A3.the deference between metals properties A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.
C. Thinking Skills Carry out his duties on the job site with professional motives. C2.ability to enhance and advance the information's in the specialism C3.the best usage of all available tools to get modern progress C4. Merge in universal and local education to put the suitable solutions for problems.
Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)
D1. Improve their debating skills
D2. Raise their research perceptions and move the student from education to learning
D3.
D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	3	Knowledge and Experimental application	Iron, solubility of carbon in iron, thermal equilibrium diagram of iron / carbon system, the most important reactions included in the diagram.	Power point, Lecture	Tests and reports
2	3	Knowledge and Experimental application	Complementary to the Iron / Carbon Thermal Balance Scheme	Power point, Lecture	Tests and reports
3	3	Knowledge and Experimental application	The formation of austenite, the mechanism of conversion of perlite to austenite	Power point, Lecture	Tests and reports
4	3	Knowledge and Experimental application	Austenite shifts are steady degree and cryogenic transformations.	Power point, Lecture	Tests and reports
5	3	Knowledge and Experimental application	Thermal Treatments (Annealing, Equation, Standardization)	Power point, Lecture	Tests and reports
6	3	Knowledge and Experimental application	Complementation of heat treatments (standardization and revision), sub-zero heat treatments, aging.	Power point, Lecture	Tests and reports
7	3	Knowledge and Experimental application	Surface hardening (carbonation of all kinds and the thermal treatments that follow it).	Power point, Lecture	Tests and reports
8	3	Knowledge and Experimental application	Alloy steel, the effect of alloying elements on the properties of steel.	Power point, Lecture	Tests and reports
9	3	Knowledge and Experimental application	Stainless steel, steel to number	Power point, Lecture	Tests and reports

10	3	Knowledge and Experimental application	Cast iron production and heat treatment	Power point, Lecture	Tests and reports
11	3	Knowledge and Experimental application	Supplementing the production of cast iron and its most important types	Power point, Lecture	Tests and reports
12	3	Knowledge and Experimental application	Definition of corrosion, direct and indirect economic costs of corrosion, manifestations of corrosion, mechanism of occurrence of corrosion	Power point, Lecture	Tests and reports
13	3	Knowledge and Experimental application	Negativity, Faraday's law, general erosion, galvanic corrosion, cavernous erosion.	Power point, Lecture	Tests and reports
14	3	Knowledge and Experimental application	Soil Erosion, Facultative Erosion, Intercrystalline Erosion, Stress Erosion	Power point, Lecture	Tests and reports
15	3	Knowledge and Experimental application	Optimum selection of material, ambient relief, design and operation.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٣٧. Available in the free section and library of the institute. ٣٨. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Workshop 3
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum

6. Semester/Year	Second year
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding -Q A1. The practical work on the turning and milling , grinding drilling machines . A2.duties to implement on the turning machine A3.define the cutting cutter and metal preparing to work A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.

C. Thinking Skills

Carry out his duties on the job site with professional motives.

C2.ability to enhance and advance the information's in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problems.

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	2	Knowledge and Experimental application	(Freezing (5 weeks -1 Horizontal milling machine, -1 the main university. Explain the parts of the machine and the function of each, the operation of the machines and the selection of speeds and feeds, the tools and devices attached to the machines and their uses and methods of fixing them, the dividing heads, the machines, the rotary tray, the whole milling heads, the rack work head, the sewer working head. :Milling cutters -2 Types (cylindrical surface milling, shoulder milling, sewer work cutters, gear lightening cutters, cylindrical special forming cutters with (internal or peripheral hole The uses of the electrodes, methods of installing them, fixing the artifacts :Milling flat surfaces -3 Selecting and installing the appropriate electronic equipment, adjusting cutting and feeding speeds, how to install the workpieces, the sequence of operations, parts of milling operations to straighten flat, inclined and	Theoretical lecture	Tests and reports

			opposite surfaces and make a group of different channels		
2	2	Knowledge and Experimental application	Partition Headers and Their Uses -1: Partitioning device and how to use it, simple division, dividing using holes circles, differential division, dividing angles, doing exercises on different types of divisions (dividing parts, dividing angles). 2- Milling of straight gears on general machines and amended serrated newspapers, laws relating to cutting gears, used cutters, service equipment, preparation of the processing and operation of parts of milling operations, review of the final dimensions, training on milling of a fairing arc and a modified serrated sheet.	Theoretical lecture	Tests and reports
3	2	Knowledge and Experimental application	Milling bevel gears on general machines: -1 The same method of milling (gear gears) Milling helical gears and inclined serrated sheets on general machines: -2 (The same platform as the gears milling mechanism)	Power point, Lecture	Tests and reports
4	2	Knowledge and Experimental application	Milling the artifacts with the division of the corners -1 Dredging the internal sewers. -2 3- Milling the curves, explaining the general laws of	Power point, Lecture	Tests and reports

			each process, the steps of their implementation, preparing the raw materials, choosing the straws, choosing the operating rates, performing the milling operations, reviewing the dimensions of the works.		
5	2	Knowledge and Experimental application	:Milling machine maintenance Dismantling and installing -1 .the mandrel Opening, maintenance and -2 installation of the machine .table Open the gearbox of the -3 main parts and learn how to change the speed and re- .install it Open the feed speed box -4 and learn how to change and .re-install it Carrying out speed change -5 operations through belts and pulleys and identifying how to convert them and the process .of tightening them 6- Identifying the electrical control circuits for the operation of the milling machine.	Power point, Lecture	Tests and reports
6	2	Knowledge and Experimental application	(grinding (5 weeks -2 :Grinding machines -1 Internal and external) cylindrical, eccentric grinding, superficial grinding, number of (teeth :Grinding stones -2	Power point, Lecture	Tests and reports

			Shapes, types, specifications, use of each, preparation of grinding stones for operation (balance control, stone leveling). 3- Surface grinding machines: Explain the parts of the machine and its function, the method of operation and the control of the course, the speed of feeding and grafting, methods of fixing the artifacts, the use of coolant fluids and its types. 4- Training on grinding flat, parallel, perpendicular, and oblique surfaces. 5- Sewer Grinding: Training on grinding of various sewers and round sewers.		
7	2	Knowledge and Experimental application	Cylindrical grinding: Parts of the machine and how to operate it, adjust operating speeds and rates, test the appropriate stone for the work, install works, use cooling fluids and measuring tools. 2- Exercises on external and internal cylindrical grinding.	Power point, Lecture	Tests and reports
8	2	Knowledge and Experimental application	Decentralized grinding and linkage grinding. 2- Various grinding operations using previous grinding operations, training on them.	Power point, Lecture	Tests and reports

9	2	Knowledge and Experimental application	:Tool sharpening machine Operating the number-age -1 machines, how to deal with them, and choosing the appropriate machine for the .age of the specific tool How to install the cutting -2 tool on the machine and determine the required angles .for the cutting edge 3- Carrying out tooth operations for models of the number of pieces (single-cut tool, binary categorical, polynomial.	Power point, Lecture	Tests and reports
10	2	Knowledge and Experimental application	Maintenance of grinding machines (general internal and external cylindrical (grinding machine How to change the coolant -1 and determine the required .level Determine the places of -2 lubrication and lubrication of the machine and the appropriate type of oil and .grease 3- Carrying out the process of changing the rotational speed transmission belts for the stone and the work.	Power point, Lecture	Tests and reports
11	2	Knowledge and Experimental application	(Scraping (5 weeks -3 Detangling and vertical -1 :planers The difference between the use of each of them, the parts of the machine and the method of work, the works	Power point, Lecture	Tests and reports

			and surfaces that can be operated on each of the pens used, the methods of installing them, the cutting speeds, feeding, grafting rates, and .the selection of each of them Exercises for skimming -2 straight and tilted surfaces at .different angles 3- Exercises for making internal and external channels of various shapes.		
12	2	Knowledge and Experimental application	Exercises to plan surfaces and complete parts of the parts, V-block, punched bases.	Power point, Lecture	Tests and reports
13	2	Knowledge and Experimental application	Drills on arcs scraping, sewer work on circular crafts using splitters on planers.	Power point, Lecture	Tests and reports
14	2	Knowledge and Experimental application	Various skimming exercises.	Power point, Lecture	Tests and reports
15	2	Knowledge and Experimental application	Maintenance of the scraping :machine Maintenance of the cart -1 .skimming machine Opening the alligator and -2 maintenance parts for the control parts on the length of the stroke, as well as changing .the location of the stroke 3- Parts of various lubrication and lubrication operations and opening the oil pump.	Power point, Lecture	Tests and reports

12. Infrastructure

Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٣٩. Available in the free section and library of the institute. ٤٠. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Workshop 4
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	Second year
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding -R A1. The practical work on the turning and milling , grinding drilling machines . A2.duties to implement on the turning machine A3.define the cutting cutter and metal preparing to work A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.
C. Thinking Skills Carry out his duties on the job site with professional motives. C2.ability to enhance and advance the information's in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problems.

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	٢	Knowledge and Experimental application	(Lathing (5 weeks Decentralized turning and -1 turning using the quadrilateral eyelet and the methods of fixing the special works. 2- Exercises on various decentralized artifacts.	Power point, Lecture	Tests and reports
2	٢	Knowledge and Experimental application	1. Lathing of external and internal rotations and molding lathing. 2- Exercises for various turning operations with the use of shaping pens.	Power point, Lecture	Tests and reports
3	٢	Knowledge and Experimental application	:Tower lathes General idea of tower -1 lathes and the use of speed and feeding tables. 2- Follow up the operations of different products and prepare the sequence of their operations.	Power point, Lecture	Tests and reports
4	٢	Knowledge and Experimental application	The pens, the number -1 used, the method of controlling them, and the preparation for making various artifacts. 2- How to prepare process tracking maps.	Power point, Lecture	Tests and reports
5	٢	Knowledge and Experimental application	:Lathe maintenance Dismantling and -1 maintaining the triple and quadruple samples.	Power point, Lecture	Tests and reports

			Dismantling the moving -2 crow and performing .maintenance Dismantling the small and -3 large plotter and conducting .its maintenance 4- Maintaining the main cutting speed box and calculating the feeding speed.		
6	٢	Knowledge and Experimental application	Machines programd using G-Code A brief history of CNC -1 machines, the differences between ordinary machines and CNC machines, and the stages of work on the .programd machines 2- Defining the parts of the machine, the axes of movement, the control panel, defining and operating the machine in practice.	Power point, Lecture	Tests and reports
7	٢	Knowledge and Experimental application	Program, program -1 structure, how to program milling machines, functions used in programd machines, machine zero-point, .movement levels functions G17, G18, G19) Movement) coordinate functions (G90, .(G91 Simulation using simulation -2 programs, how to use the program, instructions for the .program 3- The control panel of the CNC machine according to the ISO9001 system, carrying out movements by the manual	Power point, Lecture	Tests and reports

			control device, the machine zeroing, the triangle machine zeroing, the zeroing of the work piece, methods of fixing the work piece.		
8	2	Knowledge and Experimental application	Linear motion functions -1 (G1, G2), zero segment point storage functions (reference (points G52, G53, G54, G55, G56, ,٥١) G57, G58, G59), auxiliary functions F, M, S, T Implementing a face -2 milling program using the above instructions and applying it to the calculator using simulation programs and practically implementing it on .the machine 3- G2, G3 rotary motion functions, repetition function, mirror image formation function.	Power point, Lecture	Tests and reports
9	2	Knowledge and Experimental application	Create a program to -١ implement a circular cut (quarter circle, half circle, full circle) and apply it to the calculator using simulation programs and implement it .practically on the machine Radius compensation -٢ functions (calibration functions) G40, G41, G42, G43, G44 Creating a program to -٣ carry out two exercises, one of which is prominent and the other is drilling, and applying it to the calculator using simulation programs, and	Power point, Lecture	Tests and reports

			implementing it on the machine using the above functions.		
10	2	Knowledge and Experimental application	١- Fixed functions, single-stage perforation function, phase perforating function, dental operation function, hole expansion function, threaded loop function, longitudinal slit operating function, circular drilling operation function. ٢- Implementing a program using the previous functions and applying it to the calculator using simulation programs and implementing it on the machine. ٣- Maintenance of the machine How to replace the spare parts, check the lubrication system in the machine and lubricate the spindle, check the cooling system and replace the coolant.	Power point, Lecture	Tests and reports
11	2	Knowledge and Experimental application	Vocabulary of the programd machine workshop that operates with the CAD-CAM system 1- Introducing students to the programd machines, their accessories, and the attached programs. 2- Identify the parts of the programd lathing machine. Control panel keys and the function of each of them, the number of pieces, the machine axes.	Power point, Lecture	Tests and reports

			3- Using the CAD-CAM program to design an engineering product and implement the product on the simulation calculator.		
12	2	Knowledge and Experimental application	Learn how to infer the damaged number or define a .new kit Implementation of an integrated product on the machine, starting from the design stage on the CAD/CAM program, through the simulation process, and ending with the implementation of the .product on the machine	Power point, Lecture	Tests and reports
13	2	Knowledge and Experimental application	Learning about the parts of -1 the programd milling machine: the control panel keys and their function, the number of .pieces, the machine axes 2- Using the CAD / CAM program to design an engineering product and implement the product on the simulation calculator.	Power point, Lecture	Tests and reports
14	2	Knowledge and Experimental application	Know how to replace the -1 damaged number or define a .new number 2- Implementation of an integrated product on the machine, starting from the design stage on the CAD/CAM program, passing through the simulation process, and ending with the implementation of the product on the machine.	Power point, Lecture	Tests and reports

15	2	Knowledge and Experimental application	Executing many exercises on turning and milling machines	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٤١. Available in the free section and library of the institute. ٤٢. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Project

4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	Second level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding -S A1. Implementing the students to the production projects and training them at team work in implementing the projects A2.train them to implement the theoretical studies A3. A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods

Quizzes; Midterm exam. And final exam.

C. Thinking Skills

Carry out his duties on the job site with professional motives.

C2.ability to enhance and advance the information's in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problems.

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning
D3.
D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	2	Knowledge and Experimental application	Discuss the projects that are tested and determine the method and plan of action.	Theoretical lecture	Tests and reports
2	2	Knowledge and Experimental application	Defining and allocating responsibilities and setting a schedule for implementing the project.	Theoretical lecture	Tests and reports
3	2	Knowledge and Experimental application	Preparing drawings and operating cards for the various mechanics laboratories of the project parts.	Power point, Lecture	Tests and reports
4	2	Knowledge and Experimental application	Implementation of the project in the laboratories units and preparing reports for the stages that have been reached with the weekly follow-up of the workflow of production rates and operating obstacles.	Power point, Lecture	Tests and reports
5-6	2	Knowledge and Experimental application	Discussing students with a committee and evaluating implementation plans for the better (and it is considered evaluated at the end of the first semester).	Power point, Lecture	Tests and reports
7-8	2	Knowledge and Experimental application	Resumption of the implementation of the project paragraphs and completion of the practical side	Power point, Lecture	Tests and reports
9-10-11	2	Knowledge and Experimental application	Discussing the project details and directing students to prepare the final report (the second semester evaluation is considered).	Power point, Lecture	Tests and reports

12-13	2	Knowledge and Experimental application	Completion of the project, with both theoretical and practical aspects, and preparation for final discussion	Power point, Lecture	Tests and reports
14-15	2	Knowledge and Experimental application	Final discussion of the project	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٤٣. Available in the free section and library of the institute. ٤٤. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Drawing of mechanical fasteners
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	Second level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding -T A1. Introducing the students of the importance of engineering drawings for the mechanical applications A2.eplaine the symbols and orders of AOUTO CAD A3. A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.
C. Thinking Skills Carry out his duties on the job site with professional motives. C2.ability to enhance and advance the information's in the specialism C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problems.
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)
D1. Improve their debating skills
D2. Raise their research perceptions and move the student from education to learning
D3.
D4.

1. Teaching Institution	Al Dour Technical Institute

2. University Department/Centre	Mechanical technical department
3. Course title/code	Gears Drawing
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	Second level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding -U A1. Introducing the students of the importance of engineering drawings for the mechanical applications A2.eplaine the symbols and orders of AOUTO CAD A3. A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods

Quizzes; Midterm exam. And final exam.

C. Thinking Skills

Carry out his duties on the job site with professional motives.

C2.ability to enhance and advance the information's in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problems.

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning
D3.
D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1-2	2	Knowledge and Experimental application	Pulleys and belts, their types and uses, with two paintings drawn to assemble parts that contain different types of belt wheels.	Power point, Lecture	Tests and reports
3-4	2	Knowledge and Experimental application	Gears, types, adjustable gears, basic definitions, drawing of a fair gear with an assembly plate to engage a fair gear.	Power point, Lecture	Tests and reports
5	2	Knowledge and Experimental application	The bevel gears, with an assembly drawing of the bevel gear interlock.	Power point, Lecture	Tests and reports
6-7	2	Knowledge and Experimental application	Introduction to Autodesk Inventor	Power point, Lecture	Tests and reports
8-9	2	Knowledge and Experimental application	2D drawing environment	Power point, Lecture	Tests and reports
10-11	2	Knowledge and Experimental application	Collection environment	Power point, Lecture	Tests and reports
12-13	2	Knowledge and Experimental application	Dynamic and motion analysis environment	Power point, Lecture	Tests and reports
14	2	Knowledge and Experimental application	Additions to fees	Power point, Lecture	Tests and reports
15	2	Knowledge and Experimental application	A project with the competence of the concerned department for a part of any operational system.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٤٥. Available in the free section and library of the institute. ٤٦. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	2	Knowledge and Experimental application	A general review of first grade topics, geometric lines, projections, sections, and dimensioning using AutoCAD.	Theoretical lecture	Tests and reports
2-3	2	Knowledge and Experimental application	Methods for fastening using screw, types of screw, types of nuts, with painting.	Theoretical lecture	Tests and reports
4-5	2	Knowledge and Experimental application	Connecting by switches, types, uses, drawing of an assembly plate.	Power point, Lecture	Tests and reports
6-7	2	Knowledge and Experimental application	Welding splicing, welding symbols, assembly plate drawing with welding symbols.	Power point, Lecture	Tests and reports
8-9	2	Knowledge and Experimental application	Rivet fastening, shapes of rivets, types of rivet fastening, assembly plate drawing.	Power point, Lecture	Tests and reports
10	2	Knowledge and Experimental application	Applied panel for mechanical hoist splitting and assembly.	Power point, Lecture	Tests and reports
11	2	Knowledge and Experimental application	Springs, types, uses, drawing of a compression spring.	Power point, Lecture	Tests and reports
12	2	Knowledge and Experimental application	Drawing application plate for exhaust valve segmentation and assembly.	Power point, Lecture	Tests and reports
13	2	Knowledge and Experimental application	Column connections (couplings) of all kinds, drawing an applied panel.	Power point, Lecture	Tests and reports
14	2	Knowledge and Experimental application	Clutches, their types and uses, with an application drawing.	Power point, Lecture	Tests and reports

15	2	Knowledge and Experimental application	Bearings, drawing of an assembly plate for a friction bearing chair.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٤٧. Available in the free section and library of the institute. ٤٨. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Principles of occupational safety
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Compulsory
6. Semester/Year	Second level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method

Knowledge and Understanding -V

A1. Study the engineering properties of materials and amorphous and identify the mechanical properties of metals and alloys.

A2.

A3.

A4.

B. Subject-specific skills

B1. Capability to manage projects

B2. The ability to solve problems on the job site and solve crises in this field

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

C. Thinking Skills

Carry out his duties on the job site with professional motives.

C2.ability to enhance and advance the information's in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problems.

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	1	Knowledge and Experimental application	Management: management and its development, stages of management development, basic principles of management, characteristics of management, levels of management.	Theoretical lecture	Tests and reports
2	1	Knowledge and Experimental application	Administration: administrative functions, industrial management, its functions, industrial engineering, characteristics of industrial management.	Theoretical lecture	Tests and reports
3	1	Knowledge and Experimental application	:Industrial unit arrangement The location and arrangement of the industrial unit - The main factors affecting the selection of industrial project sites. - The arrangement of the industrial unit (the initial arrangement of the factory). Classification of the types of industrial unit arrangements. - Advantages and limitations and the cases in which it is applied (commodity, functional, mixed, joint arrangement).	Power point, Lecture	Tests and reports
4	1	Knowledge and Experimental application	Feasibility study for industrial projects: An idea for a feasibility study for industrial projects.	Power point, Lecture	Tests and reports

			Industrial project Stages of feasibility studies The importance of feasibility studies.		
5	1	Knowledge and Experimental application	:Production planning Production planning, the concept of production planning, objectives of production planning and control	Power point, Lecture	Tests and reports
6	1	Knowledge and Experimental application	:Production planning Types of production, production planning methods, linear programming methods, graphic method and transfer method.	Power point, Lecture	Tests and reports
7	1	Knowledge and Experimental application	Discussing progress reports by students with a test.	Power point, Lecture	Tests and reports
8	1	Knowledge and Experimental application	:Study work and standard time Work study, work study methods, method study, time study, work measurement.	Power point, Lecture	Tests and reports
9	1	Knowledge and Experimental application	:Maintenance Maintenance, the importance of maintenance, the concept of the technological system	Power point, Lecture	Tests and reports
10	1	Knowledge and Experimental application	:Maintenance Types of maintenance	Power point, Lecture	Tests and reports
11	1	Knowledge and Experimental application	:Training Training, training concept, importance of training, training methods.	Power point, Lecture	Tests and reports

12	1	Knowledge and Experimental application	:Industrial costs and wages Costs, classification of costs, wages.	Power point, Lecture	Tests and reports
13	1	Knowledge and Experimental application	:Industrial costs and wages Wage's calculation methods, incentives, types of incentives	Power point, Lecture	Tests and reports
14	1	Knowledge and Experimental application	:purchase management Purchases, procurement steps, inventory, types of stored materials and methods of controlling them.	Power point, Lecture	Tests and reports
15	1	Knowledge and Experimental application	:Industrial safety Industrial safety, accident, types of accidents, road accidents, protective equipment, and their types.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٤٩. Available in the free section and library of the institute. ٥٠. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions

Pre-requisites	
Minimum number of students	40
Maximum number of students	100

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Industrial management
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	Second level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding -W A1. The meaning of discipline, the meaning of quality A2. Definition of quality, quality specifications, factors controlling quality, development and improvement of quality, design, quality of conformity, international and Iraqi standards A3. A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field

Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.
C. Thinking Skills Carry out his duties on the job site with professional motives. C2.ability to enhance and advance the information's in the specialism C3.the best usage of all available tools to get modern progress C4. Merge in universal and local education to put the suitable solutions for problems.
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	1	Knowledge and Experimental application	:Quality Control The meaning of discipline, the meaning of quality.	Power point, Lecture	Tests and reports
2	1	Knowledge and Experimental application	:Quality Control Definition of quality, quality specifications, factors controlling quality, development and improvement of quality, design, quality of conformity, international and Iraqi standards	Power point, Lecture	Tests and reports
3	1	Knowledge and Experimental application	Quality control methods and :sample inspection plans Quality control methods, inspection and inspection methods, quality control steps, sampling methods, sample inspection schedule.	Power point, Lecture	Tests and reports
4	1	Knowledge and Experimental application	Quality control methods and :sample inspection plans Operating characteristic curve, design quality, data collection (types and analysis)	Power point, Lecture	Tests and reports
5	1	Knowledge and Experimental application	Control schemes	Power point, Lecture	Tests and reports
6	1	Knowledge and Experimental application	:Control Charts Center outline preparation .and use	Power point, Lecture	Tests and reports

			Pareto chart preparation and use.		
7	1	Knowledge and Experimental application	:Control Charts Prepare a chart with standard deviation Defect diagram preparation	Power point, Lecture	Tests and reports
8	1	Knowledge and Experimental application	:Control Charts Scatter diagram. A method for preparing a scatter plot.	Power point, Lecture	Tests and reports
9	1	Knowledge and Experimental application	:Control Charts Quality control charts for standard deviation and .percentage of defective units (Histogram (set it up and used	Power point, Lecture	Tests and reports
10	1	Knowledge and Experimental application	:Types of control schemes Control charts for variables (X-(chart	Power point, Lecture	Tests and reports
11	1	Knowledge and Experimental application	:Types of control schemes Control charts for variables (R-range control chart and-standard deviation control chart).	Power point, Lecture	Tests and reports
12	1	Knowledge and Experimental application	:Types of control schemes Features Control Charts (P-.(chart	Power point, Lecture	Tests and reports
13	1	Knowledge and Experimental application	:Types of control schemes Features control charts (Control chart the number of defects in a single singular C-Chart).	Power point, Lecture	Tests and reports

14	1	Knowledge and Experimental application	:Types of control schemes Characteristics control charts (control chart for the average number of defects in the U-chart vocabulary).	Power point, Lecture	Tests and reports
15	1	Knowledge and Experimental application	Discussing progress reports by students with a test.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٥١. Available in the free section and library of the institute. ٥٢. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute

2. University Department/Centre	Mechanical technical department
3. Course title/code	Computer
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	Second level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding -X A1. Study the main parts of computer A2.how to use the computer and programs A3.the office programs excel word…etc A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods
Quizzes; Midterm exam. And final exam.
C. Thinking Skills Carry out his duties on the job site with professional motives. C2.ability to enhance and advance the information's in the specialism C3.the best usage of all available tools to get modern progress C4. Merge in universal and local education to put the suitable solutions for problems.
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	2	Knowledge and Experimental application	Introduction to the AutoCAD ,program Screen settings (Snap, Limit, Grid, Pan, Zoom, ...)	Theoretical lecture	Tests and reports
2-3-4	2	Knowledge and Experimental application	Draw List.	Theoretical lecture	Tests and reports
5-6	2	Knowledge and Experimental application	Modify list	Power point, Lecture	Tests and reports
7	2	Knowledge and Experimental application	Object Snap menu	Power point, Lecture	Tests and reports
8	2	Knowledge and Experimental application	Layers	Power point, Lecture	Tests and reports
9	2	Knowledge and Experimental application	Dimensions	Power point, Lecture	Tests and reports
10	2	Knowledge and Experimental application	Writing, Hatching	Power point, Lecture	Tests and reports
11	2	Knowledge and Experimental application	Store files and import and export files from other programs.	Power point, Lecture	Tests and reports
12	2	Knowledge and Experimental application	Making (Blocks) and importing parts from other programs such as: Dividing an element with equal distances (Divide), distributing elements along a path (Measure).	Power point, Lecture	Tests and reports

13-14	2	Knowledge and Experimental application	Drawing applications on the computer according to the specialization of the department.	Power point, Lecture	Tests and reports
15	2	Knowledge and Experimental application	Printing, cloning and output files to the plotter printer.	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٥٣. Available in the free section and library of the institute. ٥٤. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAM REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Arabic Language
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	Second level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

9· Learning Outcomes, Teaching, Learning and Assessment Method

Knowledge and Understanding -Y A1. Study the basic of Arabic language A3.parts of speech A4. Defining the sentence and the types of Arabic grammars
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.
C. Thinking Skills Carry out his duties on the job site with professional motives. C2.ability to enhance and advance the information's in the specialism C3.the best usage of all available tools to get modern progress C4. Merge in universal and local education to put the suitable solutions for problems.
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	2	Knowledge and Experimental application	Debutant and khabbar	Theoretical lecture	Tests and reports
2	2	Knowledge and Experimental application	Subject and participial and lobject	Theoretical lecture	Tests and reports
3	2	Knowledge and Experimental application	pronouns	Power point, Lecture	Tests and reports
4-5	2	Knowledge and Experimental application	Pronouns and voiced symbols origin and subtype	Power point, Lecture	Tests and reports
6-7	2	Knowledge and Experimental application	The five subjects	Power point, Lecture	Tests and reports
8-9	2	Knowledge and Experimental application	Flex letters and meanings	Power point, Lecture	Tests and reports
10	2	Knowledge and Experimental application	carving and hyphenate goad	Power point, Lecture	Tests and reports
11	2	Knowledge and Experimental application	The excess letters	Power point, Lecture	Tests and reports
12	2	Knowledge and Experimental application	Noon and tanween	Power point, Lecture	Tests and reports
13	2	Knowledge and Experimental application	Administration speech	Power point, Lecture	Tests and reports
14-15	2	Knowledge and Experimental application	The most famous linguistic mistakes	Power point, Lecture	Tests and reports

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS	٥٥. Available in the free section and library of the institute. ٥٦. Available in the free section and library of the institute.

· OTHER	
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Materials properties
4. Program(s) to which it contributes	Seminar, Website, Internet

5. Modes of Attendance offered	Curriculum
6. Semester/Year	First year
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	
Study the engineering properties of materials and amorphous and identify the mechanical properties of metals and alloys.	

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding -Z A1. Study the engineering properties of materials and amorphous and identify the mechanical properties of metals and alloys. A2. A3. A4.
B. Subject-specific skills B1. Capability to manage projects B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods

Quizzes; Midterm exam. And final exam.

C. Thinking Skills

C1Carry out his duties on the job site with professional motives.

C2.ability to enhance and advance the information's in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problems. Carry out his duties on the job site with professional motives.

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1	2	Knowledge and Experimental application	Introduction	Theoretical lecture	Tests and reports
2	2	Knowledge and Experimental application	The atom, the element, types of bonds in engineering materials.	Theoretical lecture	Tests and reports
3	2	Knowledge and Experimental application	Crystalline and amorphous materials	Power point, Lecture	Tests and reports
4	2	Knowledge and Experimental application	Crystalline forms (H.C.P) (F.C.C) (B.C.C).	Power point, Lecture	Tests and reports
5	2	Knowledge and Experimental application	Mechanical properties of .materials (Stress, strain-strain-strain-flexion, ductility, collapse).	Power point, Lecture	Tests and reports
6	2	Knowledge and Experimental application	Hardness, hardness test.	Power point, Lecture	Tests and reports
7	2	Knowledge and Experimental application	Supplement.	Power point, Lecture	Tests and reports
8	2	Knowledge and Experimental application	Toughness, toughness test	Power point, Lecture	Tests and reports
9	2	Knowledge and Experimental application	Thermal properties of .materials (Thermal expansion, thermal conductivity)	Power point, Lecture	Tests and reports

10	2	Knowledge and Experimental application	Electrical properties of materials (ionic materials, insulating materials, metallic materials, factors affecting conductivity).	Power point, Lecture	Tests and reports
11	2	Knowledge and Experimental application	Magnetic properties of materials (Ferromagnetic materials, paramagnetic materials, diamagnetic materials, magnetic retardation, factors affecting magnetism).	Power point, Lecture	Tests and reports
12	2	Knowledge and Experimental application	Chemical properties of materials (Corrosion, electrochemical chain, oxidation)	Power point, Lecture	Tests and reports
13	2	Knowledge and Experimental application	Iron, its most important material, its extraction, blast furnace, and transformers.	Power point, Lecture	Tests and reports
14	2	Knowledge and Experimental application	Carbon steel, its most important types, properties, and uses.	Power point, Lecture	Tests and reports
15	2	Knowledge and Experimental application	Alloy steel, its most important types, properties, and uses	Power point, Lecture	Tests and reports

12. Infrastructure

Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٥٧. Available in the free section and library of the institute. ٥٨. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100

1. Teaching Institution	Al Dour Technical Institute
2. University Department/Centre	Mechanical technical department
3. Course title/code	Baath Crimes in Iraq
4. Program(s) to which it contributes	Seminar, Website, Internet
5. Modes of Attendance offered	Curriculum
6. Semester/Year	second level
7. Date of production/revision of this specification	1/9/2023
8. Aims of the Course	

Study the engineering properties of materials and amorphous and identify the mechanical properties of metals and alloys.

9· Learning Outcomes, Teaching, Learning and Assessment Method
Knowledge and Understanding-AA A1. Crimes in Iraq A2.deffention of crimes A3.parts of crimes A4.
B. Subject-specific skills B1. Capability to manage relationship B2. The ability to solve problems on the job site and solve crises in this field
Teaching and Learning Methods
Power point, Seminar, Discussion, Lecture, Test ((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))
Assessment methods
Quizzes; Midterm exam. And final exam.
C. Thinking Skills C1Carry out his duties on the job site with professional motives.

C2.ability to enhance and advance the information's in the specialism

C3.the best usage of all available tools to get modern progress

C4. Merge in universal and local education to put the suitable solutions for problems. Carry out his duties on the job site with professional motives.

Teaching and Learning Methods

Power point, Seminar, Discussion, Lecture, Test

((Theoretical lectures / practical lectures / workshop / example solution / graduation project / summer training))

Assessment methods

Quizzes; Midterm exam. And final exam.

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Improve their debating skills

D2. Raise their research perceptions and move the student from education to learning

D3.

D4.

11. Course Structure					
Week	**Hours**	**ILOs**	**Unit/Module or Topic Title**	**Teaching Method**	**Assessment Method**
1-2	2	Knowledge and Experimental application	**Baath crimes as the Iraqi criminal court for 2005**	Power point, Lecture	Tests and reports
3	2	Knowledge and Experimental application	**parts of crimes**	Power point, Lecture	Tests and reports
4	2	Knowledge and Experimental application	**bathe crime according the high Iraqi criminal court law**	Power point, Lecture	Tests and reports
5	2	Knowledge and Experimental application	**decisions of high criminal court**	Power point, Lecture	Tests and reports
6-7	2	Knowledge and Experimental application	**physiological ,socially crimes and its effects**	Power point, Lecture	Tests and reports
8-9	2	Knowledge and Experimental application	**mechanisms of physiological socially crimes**	Power point, Lecture	Tests and reports
10-11	2	Knowledge and Experimental application	**militarized of society**	Power point, Lecture	Tests and reports
12-13	2	Knowledge and Experimental application	**environmental crimes for baath system**	Power point, Lecture	Tests and reports
14-15	2	Knowledge and Experimental application	**crimes of collective graves and the temporal classification**	Power point, Lecture	Tests and reports

12. Infrastructure

Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	٥٩. Available in the free section and library of the institute. ٦٠. Available in the free section and library of the institute.
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (Include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	40
Maximum number of students	100