

*Republic of Iraq
Ministry of Higher Education & Scientific Research
Supervision and Scientific Evaluation Directorate
Quality Assurance and Academic Accreditation
International Accreditation Dept.
Al-Ayen University*

Academic Program Specification Form For The Academic

University:

College :

Number Of Departments In The College :

Date Of Form Completion :

Dean's Name

Date : / /

Signature

*Dean's Assistant For
Scientific Affairs*

Date : / /

Signature

*The College Quality Assurance
And University Performance
Manager*

Date : / /

Signature

Quality Assurance And University Performance Manager

Date : / /

Signature

TEMPLATE FOR PROGRAMME SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

PROGRAMME SPECIFICATION

This Programme Specification provides a concise summary of the main features of the programme 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 is supported by a specification for each course that contributes to the programme.

Teaching Institution	
University Department/Centre	
Programme Title	
Title of Final Award	
Modes of Attendance offered	
Accreditation	
Other external influences	
Date of production/revision of this specification	

Aims of the Programme: The Biomedical Engineering Department program at Al-Ain University in Iraq aims to prepare graduates who are familiar with the appropriate engineering and medical knowledge, by qualifying them and raising their ability to deal with various specializations and fields as follows:

- 1- Their ability to deal efficiently and competently with various medical equipment and devices used in the health and medical field.
- 2- The ability to design and implement various devices, equipment and special measuring devices in the health and medical field.
- 3- Work efficiently in the management of institutions, companies and health technical departments and master work in the technical (team) in the field of maintenance, design or management.
- 4- The ability and work efficiently in the fields of diagnosis and maintenance of various technical medical devices.

5- The ability to design and implement human prosthetic organs, and modify them to suit the patients' condition.

6- The graduate's ability to manage the medical equipment file, and set the technical conditions for them, and the ability to estimate the actual needs of health institutions, and set the technical specifications for these devices.

7- The ability to set technical standards and regulations for the accreditation of companies working in the field of production, design, maintenance and import of various medical devices.

8- Qualifying the graduate to work in scientific research that serves the process of developing and designing various medical devices.

9- Commitment to quality and reliability standards for medical devices and achieving their occupational safety.

10. Learning Outcomes, Teaching, Learning and Assessment Methods

A. Cogenative Goals

A1: Knowledge of the basic principles of engineering and biomedical sciences necessary to understand advanced topics in biomedical engineering.

A2: Ability to use techniques, skills and tools useful for designing biomedical projects, experimental studies and engineering practice.

A3: Preparation of specialized scientific reports.

A4: Knowledge of the requirements and needs of designing modern hospitals, health centers and other health units.

B. The skills goals special to the programme .

B1: Dealing with medical equipment in its various fields in terms of the principle of work, investment and preventive maintenance.

B2: Submitting offers for medical devices to be placed on health facilities and doctors.

B3: Skills in developing technical specifications, receiving and matching medical equipment with the specified technical conditions.

B4: Planning skills and developing plans for future projects in the field of medical institutions.

B5: Design and development skills for equipment needed by medical institutions.

B6: Administrative skills for institutions, hospitals and health centers, and for public companies in the production and maintenance of medical equipment.

B7: Supervision skills and participation in the design of hospitals and health centers in integration with the engineering team from other specializations according to international standard specifications.

B8: Optimally qualifying engineering cadres to be an effective element in hospital management and health care quality committees.

Teaching and Learning Methods

1- In-person and electronic lectures

2- Simulation programs and software applications.

3- Scientific seminars for students.

4- Laboratory experiments and report writing.

5- Summer training.

6- Scientific field visits (scientific trips).

7- Graduation project

Assessment methods

- 1- Short, midterm and final exams
- 2- Written and oral exams
- 3- Laboratory reports.
- 4- Classroom and extracurricular activities.
- 5- Discipline in daily work.
- 6- Homework
- 7- Graduation project evaluation committees.

C. Affective and value goals

C1: Preparing students to possess the skills necessary to meet the requirements of their community and country.

C2: Developing the spirit of perseverance and the ability to solve engineering and administrative problems using effective engineering methods.

C3: Developing the student's ability to make engineering and administrative decisions.

C4: Directing the student's energies towards providing the best and most appropriate for his country, community and institution.

Teaching and Learning Methods

1- Presenting some engineering problems

2- Providing the necessary devices and equipment and thus teaching how to conduct experiments easily after graduation.

3- Scientific visits to engineering projects and institutions that give the student the experience to identify the possibilities

Assessment methods

1- Report discussions

2- Seminar discussions



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

D1: seminars

D2: discussion meetings

D3: training courses and workshops

D4: Monitoring instructions and quality of medical engineering measurements and working in consulting offices in their field of specialization

Teaching and Learning Methods

1. Engineering laboratory training

2. Experiments on simulation models of engineering systems

3. Seminars

Assessment methods

1. Laboratory reports

2. Graduation projects

3. Scientific seminars

4. Rapid Response to Task Fulfillment

11. Programme Structure

[illegible]

13. Personal Development Planning

- 1- The faculty seeks to keep abreast of scientific developments and develop teaching and learning mechanisms by attending and holding scientific and cultural seminars and lectures and holding quarterly lectures under the title "Cultural Program for Quality."
- 2- The department's staff seeks to raise levels of interaction with students, student mentorship, university service activities, professional and development activities and interaction with medical and professional cadres as well as employers.

14. Admission criteria

- 1- College Admission Requirements
- 2- Approval of admission requirements for students in accordance with the instructions issued by the Ministry of Higher Education and Scientific Research (Central Admission)
- 3- Medical Fitness for Advanced Specialty
- 4- Conditions for admission to the scientific department
- 5- Choosing the student's wish from among more than one arranged according to preference;
- 6- General Secondary Admission Rate,
- 7- Capacity of the Science Department

15. Key sources of information about the programme

- 1- Sources accredited to international universities
- 2- Local Trends
- 3- Market Needs
- 4- Studies and questionnaires
- 5- Specialized seminars and workshops with beneficiaries

Curriculum Skills Map									
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please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed

[illegible]

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME 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 programme specification.

1. Teaching Institution	Al-Ayen University, College of Engineering
2. University Department/Centre	Department of Biomedical
3. Course title/code	English I - ENGL230
4. Modes of Attendance offered	Weekly, 2 theoretical hour
5. Semester/Year	First semester, 2024/2025
6. Number of hours tuition (total)	33
7. Date of production/revision of this specification	29/9/2024
8. Aims of the Course:	
1. Training students on the basics of grammar and understanding them well.	
2. Training students to acquire the necessary communication competence in the biomedical engineering major.	
3. Improving students' linguistic proficiency in English with a focus on listening, speaking, reading and writing skills.	
4. Enabling students to study and understand lessons and prescribed materials more effectively with regard to their theoretical and practical components.	
5. Developing students' communication skills in formal and informal situations.	

9. Learning Outcomes, Teaching ,Learning and Assessment Methods

A- Cognitive goals:

- A1** Acquiring knowledge of the rules and basics of the language with the aim of understanding scientific research.
- A2.** Acquiring communicative proficiency in engineering English will enable students to work confidently and effectively.
- A3.** The subject is designed to focus on listening, speaking, reading and writing on topics common to all engineering fields such as monitoring, control, procedures, precautions and engineering design, which helps students gain practical knowledge and practice engineering disciplines. English for engineers. It is suitable for use in the engineering environment at both practical and professional levels.
- A4.** Activities based on everyday engineering situations, from describing technical problems and solutions to working with drawings, make this material practical and motivating for students.

B. The skills goals special to the course.

- B1.** The student will have sufficient skills for technical and academic communication with professors and the professional workplace.
- B2.** Training the student in daily conversations.
- B3.** Training the student on how to formulate formal and informal correspondence.
- B4.** Training the student to write and understand scientific research.

10. Teaching and Learning Methods

Assessment is based on manual tasks, written examinations, classroom activities, quizzes and practical tests

C. Affective and value goals

- C1.** Instilling academic honesty in the student's assignments.
- C2.** Developing students' ability to work collectively as effective teams and produce outstanding results.
- C3.** Developing students' sense of responsibility and psychological preparation to bear the burdens placed on their shoulders.
- C4.** Developing logical thinking to get out of repetition, stereotyping, and memorization.
- C5.** Developing the spirit of perseverance and keenness to complete work to achieve satisfactory results.
- C6.** Scientific and psychological awareness for the future labor market, which will be among its basic requirements the ability to translation and writing.

. Teaching and Learning Methods

Lectures, discussion, dialogues and questions, work as a group

Assessment method

Homework, semester exams, final exams

D. General and rehabilitative transferred skills (other skills relevant to employability and personal development)

- D1.** Increasing the student's skills in understanding sentences directly.
- D2.** Increasing the student's ability to think in English.
- D3.** Increasing the student's ability to research and scientific investigation in the English language.
- D4.** Increasing the student's ability to write scientific research in English.

10.Course Structure

Week	Hours	ILOs	Unit/ Module or Topic Title	Teaching Method	Assessment Method
Week 1	4	Understanding the lecture	-Getting to know you. -The way we live.	- Class attending	Homework, tests, monthly exams, and final exams.
Week 2	4	Understanding the lecture	It all went wrong.		Homework, tests, monthly exams, and final exams.
Week 3	4	Understanding the lecture	Let's go shopping!		Homework, tests, monthly exams, and final exams.
Week 4	4	Understanding the lecture	What do you want to do		Homework, tests, monthly exams, and final exams.
Week 5	4	Understanding the lecture	Tell me! What's it like?		Homework, tests, monthly exams, and final exams.
Week 6	4	Understanding the lecture	Famous couples		Homework, tests, monthly exams, and final exams.
Week 7	4	Understanding the lecture	Do's and don'ts		Homework, tests, monthly exams, and final exams.
Week 8	4	Understanding the lecture	Mid-term exam		Homework, tests, monthly exams, and final exams.
Week 9	4	Understanding the lecture	Going places		Homework, tests, monthly exams, and final exams.
Week 10	4	Understanding the lecture	Scared to death		Homework, tests, monthly exams, and final exams.
Week 11	4	Understanding the lecture	Things that changed the world.		Homework, tests, monthly exams, and final exams.
Week 12	4	Understanding the lecture	Dreams and reality		Homework, tests, monthly exams, and final exams.
Week 13	4	Understanding the lecture	Earning a living		Homework, tests, monthly exams, and final exams.
Week 14	4	Understanding the lecture	Love you and leave you		Homework, tests, monthly exams, and final exams.
Week 15	4	Understanding the lecture	Preparatory week before the final exam		Homework, tests, monthly exams, and final exams.

11. Infrastructure

1 . Books Required reading:

2. Main References (Sources)	
A- Recommended books and References (scientific journals, reports...).	- Headway for pre-intermediate (text book & work book) - Cambridge English for Engineering
B- Electronic references, Internet sites ...	- English for engineers and technologists. - Cambridge Professional English in Use.

12. The development of the curriculum plan

Adding an audio laboratory to train students in listening and speaking

