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

Academic Program Specification Form for The Academic

University: Alnahrain university
College: collage of pharmacy
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 : 20/7/2023
Signatur

Quality Assurance And University Performance Manager Date : / /
Signature

TEMPLATE FOR PHARMACOLOGY PROGRAMME SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

PROGRAMME SPECIFICATION

This Program Specification provides a concise summary of the main features of the program 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 program.

1. Teaching Institution	College Of Pharmacy
2. University Department/Centre	Al-Nahrain University -College Of Pharmacy - department of pharmacology
3. Program Title	Bachelor degree In pharmacy
4. Title of Final Award	B.Sc. pharmacy
5. Modes of Attendance offered	courses
6. Accreditation	
7. Other external influences	Practical laboratory training
8. Date of production/revision of this specification	23-10-2022
9. Aims of the Program	
a. Study the types of drugs to treat disease	
b. Study the adverse effect	
c. Study the contraindication of drugs	
d. Study the pharmacokinetics and pharmacodynamics of drugs	
e. Study of drug – drug interactions	
f. Study the functions of human organs	

Pharmacology II:

- To introduce students to the general pharmacology of the central nervous system and to various drug groups used in the treatment of CNS diseases or drugs altering its function. The student will be introduced to various drugs used in the management of cardiovascular diseases. Moreover, the course covers the drugs affecting the gastrointestinal and respiratory systems.

Clinical Toxicology :

- To provide students with the principles and skills required to deal with the toxicity of chemicals and drugs in clinical settings. It helps students correlate signs and symptoms of toxicity with the analytical data, and know how to establish preventive and therapeutic measures for poisoning cases.

Pharmacology I:

- To introduce pharmacy students to the basis of general pharmacology.The student will learn about various body systems and drugs used to affect them inboth healthy and diseased situations.Moreover, the course will cover the drugs used to treat microbial infections.

Pharmacology III:

- To introduce the pharmacy students to various drug groups affecting endocrine systems and their use in correcting abnormalities in the endocrine functions. Moreover the course will cover the drugs used in the management of neoplastic diseases, bone disorders, obesity and erectile dysfunction. Inflammatory agents and the anti-inflammatory drugs will also be covered during this course.

General Toxicology :

- To study the principles of exposure to different chemicals and environmental factors and their sources as well as the mechanisms of toxicity and their risk to human beings. The course helps students understand the required measures to protect living organisms against suspected toxic hazards.

Physiology I:

- To help students understand the basic principles of physiological functions of different tissues and organs of the human being, and how to evaluate these functions and correlate them with the normal and abnormal conditions. It emphasizes on the role of homeostatic and hemodynamic changes in the integration of physiological status.

Physiology II:

- To help students understand the basic principles of physiological functions of different tissues and organs of the human being, and how to evaluate these functions and correlate them with the normal and abnormal conditions. It emphasizes on the role of homeostatic and hemodynamic changes in the integration of physiological status.

Medical Terminology :

- To teach students how to pronounce, spell and define medical and pharmaceutical terms used in health care settings. It will use a word-building strategy that helps them discover connections and relationships among word roots, prefixes, and suffixes. Students will learn the meaning of each part of a complex medical and pharmaceutical term, be able to put the parts together and define the term.

10. Learning Outcomes, Teaching, Learning and Assessment Methods
A. Cognitive goals A1. How to dispense drugs A2. Patient education about drug adverse effect A3. How to communicate with patient and educate him A4. How to prepare lectures and seminars
B. The skills goals special to the programme . B1. Drug use skill B2. Blood pressure measures skill B3.patient education skill
Teaching and Learning Methods
Board smart board power point
Assessment methods
Theoretical examination Practical examination Discussion groups Practical experiment
C. Affective and value goals C1.skills of thinking from translate, analysis, and extraction of ideas C2. Novel idea about new use of drugs
Teaching and Learning Methods
Theoretical lectures and practical work
Assessment methods
Theoretical examination Practical examination Discussion groups Practical experiment

D. General and Transferable Skills (other skills relevant to employability and personal development)
D1.listining skill
D2.managment skill
D3.conversation skill
D4.decision maker skill

Teaching and Learning Methods

Theoretical lectures and practical work

Assessment Methods

Theoretical examination
Practical examination
Discussion groups
Practical experiment

11. Program Structure				12. Awards and Credits
Level/Year	Course or Module Code	Course or Module Title	Credit rating	
First year(1st course)	10304104	Medical terminology	1	
Second (1st courses	10304219	Physiology I	4	
Second (2nd courses)	10304226	Physiology II	4	Bachelor Degree Requires (19) credits from the department
Third (2nd course)	10304338	Pharmacology I	3	
Fourth (1st course)	10304444	Pharmacology II	4	
Fourth (2nd course)	10304450	pharmacologyIII	2	
Fourth (2nd course)	10304561	General Toxicology	3	
Fifth (1st course)	10304561	Clinical toxicology	3	

13. Personal Development Planning
A special advisement is done for personal development to give the student the opportunity to enroll in the pharmacist community and other scientific community event.
14. Admission criteria .
According to ministry of higher education and scientific research centrally admission.
15. Key sources of information about the programme
Dean committee in Iraq World health organization Books and scientific sites

Curriculum Skills Map																			
please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed																			
				Programme Learning Outcomes															
Year / Level	Course Code	Course Title	Core (C) Title or Option (O)	Knowledge and understanding				Subject-specific skills				Thinking Skills				General and Transferable Skills (or) Other skills relevant to employability and personal development			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	D4
First		Medical terminology	C	√	√	√	√	√	√	√		√	√			√	√	√	√
Second		Physiology 1	C	√	√	√	√	√	√	√		√	√			√	√	√	√
		Physiology 2	C	√	√	√	√	√	√	√		√	√			√	√	√	√
Third		Pharmacology 1	C	√	√	√	√	√	√	√		√	√			√	√	√	√
Fourth		Pharmacology 2	C	√	√	√	√	√	√	√		√	√			√	√	√	√
		Pharmacology 3	C	√	√	√	√	√	√	√		√	√			√	√	√	√
		Toxicology	C	√	√	√	√	√	√	√		√	√			√	√	√	√
Fifth		Clinical Toxicology	C	√	√	√	√	√	√	√		√	√			√	√	√	√

TEMPLATE FOR PHARMACOLOGY II
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	College Of Pharmacy
2. University Department/Centre	Al-Nahrain University -College Of Pharmacy -department of pharmacology
3. Course title/code	Pharmacology II
4. Modes of Attendance offered	Theoretical
5. Semester/Year	First semester- fourth year
6. Number of hours tuition (total)	45 hours
7. Date of production/revision of this specification	23-10-2022
8. Aims of the Course	
To introduce students to the general pharmacology of the central nervous	
system and to various drug groups used in the treatment of CNS diseases or drugs	
altering its function. The student will be introduced to various drugs used in the	
management of cardiovascular diseases. Moreover, the course covers the drugs	
affecting the gastrointestinal and respiratory systems.	

9· Learning Outcomes, Teaching ,Learning and Assessment Methode

A- Cognitive goals

A1. How to dispense drugs

A2. Patient education about drug adverse effect

A3. How to communicate with patient and educate him

A4. How to prepare lectures

B. The skills goals special to the course.

B1. Drug use skill

B2. Blood pressure measures skill

B3.patient education skill

Teaching and Learning Methods

Board

smart board

power point

Assessment methods

Theoretical examination

Practical examination

Discussion groups

C. Affective and value goals

C1.skills of thinking from translate, analysis, and extraction of ideas

C2. Novel idea about new use of drugs

Teaching and Learning Methods

Board

smart board

power point

Assessment methods

Theoretical examination

Practical examination

Discussion groups

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

D1.listining skill
D2.managment skill
D3.conversation skill
D4.decision maker skill

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2		Introduction to CNS pharmacology.	smart board	Theoretical examination
1	2		CNS stimulants.	smart board	Theoretical examination
2	3		General and Local Anesthetics	smart board	Theoretical examination
3	3		Antidepressant drugs.	smart board	Theoretical examination
4	3		Anxiolytic and Hypnotic drugs.	smart board	Theoretical examination
5	2		Antipsychotic (neuroleptic) drugs.	smart board	Theoretical examination
5	3		Opioid analgesics and antagonists	smart board	Theoretical examination
6	3		Treatment of neurodegenerative diseases.	smart board	Theoretical examination
7	2		Antiepileptic Drugs.	smart board	Theoretical examination
7	2		Diuretics.	smart board	Theoretical examination
8	2		The treatment of heart failure.	smart board	Theoretical examination
9	2		Antiarrhythmic drugs.	smart board	Theoretical examination

10	2		Antianginal Drugs.	smart board	Theoretical examination
11	3		Antihypertensive drugs	smart board	Theoretical examination
12	3		Drugs affecting the blood.	smart board	Theoretical examination
13	2		Antihyperlipidemic drugs	smart board	Theoretical examination
14	3		Gastrointestinal and antiemetic drugs.	smart board	Theoretical examination
15	3		Drugs acting on the respiratory system.	smart board	Theoretical examination

11. Infrastructure	
1. Books Required reading:	Lippencott's pharmacology,
2. Main references (sources)	Text books
A- Recommended books and references (scientific journals, reports…).	Articles
B-Electronic references, Internet sites…	World health organization

12. The development of the curriculum plan
By the addition of only 20%of the syllabus to develop the pharmacology sciences

1. Teaching Institution	College Of Pharmacy
2. University Department/Centre	Al-Nahrain University -College Of Pharmacy -department of pharmacology
3. Course title/code	Pharmacology 2
4. Modes of Attendance offered	practical
5. Semester/Year	First semester- fourth year
6. Number of hours tuition (total)	30hours
7. Date of production/revision of this specification	23-10-2022

8. Aims of the Course

To teach students the practice of application of Pharmacological principles in animal, and to understand the bases for evaluation of the pharmacological activity of drugs and chemicals in experimental animals.

9· Learning Outcomes, Teaching ,Learning and Assessment Method

A- Cognitive goals .

A1. How to dispense drugs

A2. Patient education about drug adverse effect

A3. How to communicate with patient and educate him

A4. How to prepare lectures and seminars

B. The skills goals special to the course.

B1. Drug use skill

B2. Blood pressure measures skill

B3.patient education skill

Teaching and Learning Methods
Board practical laboratory
Assessment methods
Practical examination Discussion groups Practical experiment
C. Affective and value goals C1.skills of thinking from translate, analysis, and extraction of ideas C2. Novel idea about new use of drugs
Teaching and Learning Methods
Board practical laboratory
Assessment methods
Practical examination Discussion groups Practical experiment
D. General and rehabilitative transferred skills(other skills relevant to employability and personal development) D1.listining skill D2.managment skill D3.conversation skill D4.decision maker skill
10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2		How to write a report	Practical experiment	Practical exam
2	2		handling of animal	Practical experiment	Practical exam
3	2		Rout of administration 1	Practical experiment	Practical exam
4	2		Rout of administration 2	Practical experiment	Practical exam
5	2		Effect of parasympathomimitics on glandular secretion	Practical experiment	Practical exam
6	2		drugs acting on the eye	Practical experiment	Practical exam
7	2		Effect of drugs on BP	Practical experiment	Practical exam
8	2		The effects of drugs and their antagonists on isolated rats ileum	Practical experiment	Practical exam
9	2		The effects of drugs and their antagonists on isolated rabbits ileum	Practical experiment	Practical exam
10	2		Effects of Antiepileptic’s	Practical experiment	Practical exam
11	2		General Anesthesia	Practical experiment	Practical exam
12	2		Opioids analgesics	Practical experiment	Practical exam
13	2		Evaluation of NSAID	Practical experiment	Practical exam
14			Final exam		
15			Final exam		

11. Infrastructure

1. Books Required reading:	pharmacology manual
2. Main references (sources)	pharmacology manual
A- Recommended books and references (scientific journals, reports…).	Articles
B-Electronic references, Internet sites…	World health organization

12. The development of the curriculum plan
By the addition of only 20%of the syllabus to develop the pharmacology sciences

TEMPLATE FOR CLINICAL TOXICOLOGY 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	College Of Pharmacy
2. University Department/Centre	Al-Nahrain University -College Of Pharmacy -department of pharmacology
3. Course title/code	Clinical Toxicology
4. Modes of Attendance offered	Theoretical
5. Semester/Year	First semester – fifth year
6. Number of hours tuition (total)	30 hours
7. Date of production/revision of this specification	23-10-2022
8. Aims of the Course	
To provide students with the principles and skills required to deal with	
the toxicity of chemicals and drugs in clinical settings. It helps students correlate	
signs	
and symptoms of toxicity with the analytical data, and know how to establish	
preventive and therapeutic measures for poisoning cases.	

9· Learning Outcomes, Teaching ,Learning and Assessment Methode
A- Cognitive goals . A1. How to dispense drugs A2. Patient education about drug adverse effect A3. How to communicate with patient and educate him A4. How to prepare lectures and seminars
B. The skills goals special to the course. B1. Drug use skill B2. Blood pressure measures skill B3.patient education skill
Teaching and Learning Methods
Board smart board power point
Assessment methods
Theoretical examination
C. Affective and value goals C1.skills of thinking from translate, analysis, and extraction of ideas C2. Novel idea about new use of drugs
Teaching and Learning Methods
Board smart board power point

Assessment methods
Theoretical examination

D. General and rehabilitative transferred skills(other skills relevant to employability and personal development)
D1.listining skill
D2.managment skill
D3.conversation skill
D4.decision maker skill

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2		Initial Evaluation and Management of the Poisoned Patient. Including pediatric poisoning and special consideration of geriatric patient.	smart board	Theoretical examination
2	1 1		Initial Evaluation and Management of the Poisoned Patient. Including pediatric poisoning and special consideration of geriatric patient. Drug Toxicity: Over the counter drugs, caffeine and theophylline	smart board	Theoretical examination
3	2		Drug Toxicity: antihistamine,	smart board	Theoretical examination

			Decongestant; non-steroidal anti-inflammatory drugs and vitamins.		
4	2		Toxicity of Prescription Medications: Cardiovascular drugs.	smart board	Theoretical examination
5	2		Toxicity of Prescription Medications: beta blockers.	smart board	Theoretical examination
6	2		Toxicity of Prescription Medications: ACE inhibitors.	smart board	Theoretical examination
7	2		Toxicity of Prescription Medications: Digoxin and Calcium channel blocker.	smart board	Theoretical examination
8	2		Toxicity of Prescription Medications: Antiarrhythmic agents and Anti-cholinergic phenothiazines.	smart board	Theoretical examination
9	2		Toxicity of Prescription Medications: tricyclic antidepressants and CNS depressants.	smart board	Theoretical examination
10	1		Toxicity of Prescription Medications: hypoglycemic drugs.	smart board	Theoretical examination

	1		Drug of Abuse: Opioids and Cocaine.		
11	2		Drug of Abuse: phencyclidine and marijuana.	smart board	Theoretical examination
12	1 1		Drug of Abuse: Lysergic acid and CNS stimulant. Chemical and Environmental Toxins: Hydrocarbones; Household toxins and Antiseptic.	smart board	Theoretical examination
13	2		Chemical and Environmental Toxins: Disinfectants, Camphor and moth repellents. Botanicals and plants-derived toxins.	smart board	Theoretical examination
14	2		Toxic plants; Poisonous mushrooms.	smart board	Theoretical examination
15	2		Herbal preparations.	smart board	Theoretical examination

11. Infrastructure	
1. Books Required reading:	Goldfrank's Toxicologic Emergencies, Casarett and Doull Toxicology
2. Main references (sources)	Text books

A- Recommended books and references (scientific journals, reports…).	Articles
B-Electronic references, Internet sites…	World health organization

12. The development of the curriculum plan
By the addition of only 20%of the syllabus to develop the toxicology sciences

1. Teaching Institution	College Of Pharmacy
2. University Department/Centre	Al-Nahrain University -College Of Pharmacy -department of pharmacology
3. Course title/code	Clinical Toxicology
4. Modes of Attendance offered	practical
5. Semester/Year	Second semester- Fifth year
6. Number of hours tuition (total)	30 hours
7. Date of production/revision of this specification	23-10-2022

8. Aims of the Course
To teach students the applications of the principles of drugs and
chemicals-induced toxicity in humans, and gain experience in evaluation steps and
treatment measures based on sample analysis and interpretation of toxicity signs and
symptoms.

9· Learning Outcomes, Teaching ,Learning and Assessment Method

A- Cognitive goals .

A1. How to dispense drugs

A2. Patient education about drug adverse effect

A3. How to communicate with patient and educate him

A4. How to prepare lectures and seminars

B. The skills goals special to the course.

B1. Drug use skill

B2. Blood pressure measures skill

B3.patient education skill

Teaching and Learning Methods

Board

smart board

power point

practical laboratory

Assessment methods

Theoretical examination

Practical examination

Discussion groups

Practical experiment

C. Affective and value goals

C1.skills of thinking from translate, analysis, and extraction of ideas

C2. Novel idea about new use of drugs

Teaching and Learning Methods

Board

smart board

power point

practical labratory

Assessment methods
Theoretical examination Practical examination Discussion groups Practical experiment
D. General and rehabilitative transferred skills(other skills relevant to employability and personal development) D1.listining skill D2.managment skill D3.conversation skill D4.decision maker skill

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2		Laboratory Principles or Toxicological Screening.	seminars	Practical exam
2	2		Over the counter drugs: Case on Acetaminophen poisoning; Salicylates; Evaluation of urine salicylates.	seminars	Practical exam
3	2		Over the counter drugs: Case on Acetaminophen poisoning; Salicylates; Evaluation of urine salicylates.	seminars	Practical exam
4	2		Urine analysis of toxins and chemicals.	seminars	Practical exam
5	2		Urine analysis of toxins and chemicals.	seminars	Practical exam
6	2		Cardiac glycosides toxicity: Digitalis.	seminars	Practical exam

7	2		Cases on toxicity with foods and dietary supplements.	seminars	Practical exam
8	2		Cases on toxicity with foods and dietary supplements.	seminars	Practical exam
9	2		Identification of some common poisons in biological samples: Arsenic and cyanide.	seminars	Practical exam
10	2		Identification of some common poisons in biological samples: strychnine and Salicylates.	seminars	Practical exam
11	2		Identification of some common poisons in biological samples: Phenothiazine derivatives and barbiturates.	seminars	Practical exam
12	2		Evaluation of cases of toxicity with anti-Parkinsonian drugs.	seminars	Practical exam
13	2		Evaluation of cases of toxicity with anti-Parkinsonian drugs.	seminars	Practical exam
14	2		Evaluation of drug toxicity on human.	seminars	Practical exam
15	2		Evaluation of drug toxicity on human.	seminars	Practical exam

11. Infrastructure	
1. Books Required reading:	Goldfrank's Toxicologic Emergencies, Casarett and Doull Toxicology

2. Main references (sources)	Text books
A- Recommended books and references (scientific journals, reports…).	Articles
B-Electronic references, Internet sites…	World health organization

12. The development of the curriculum plan
By the addition of only 20%of the syllabus to develop the toxicology sciences

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	College Of Pharmacy
2. University Department/Centre	Al-Nahrain University -College Of Pharmacy -department of pharmacology
3. Course title/code	Pharmacology I
4. Modes of Attendance offered	Theoretical
5. Semester/Year	Second semester- Third year
6. Number of hours tuition (total)	45 hours
7. Date of production/revision of this specification	23-10-2022
8. Aims of the Course	
To introduce pharmacy students to the basis of general pharmacology.	
The student will learn about various body systems and drugs used to affect them in	
both healthy and diseased situations. Moreover, the course will cover the drugs used	
to treat microbial infections.	

9· Learning Outcomes, Teaching ,Learning and Assessment Methode
A- Cognitive goals . A1. How to dispense drugs A2. Patient education about drug adverse effect A3. How to communicate with patient and educate him A4. How to prepare lectures and seminars
B. The skills goals special to the course. B1. Drug use skill B2. Blood pressure measures skill B3.patient education skill
Teaching and Learning Methods
Board smart board power point
Assessment methods
Theoretical examination Practical examination Discussion groups
C. Affective and value goals C1.skills of thinking from translate, analysis, and extraction of ideas C2. Novel idea about new use of drugs
Teaching and Learning Methods
Board smart board

power point

Assessment methods

D. General and rehabilitative transferred skills(other skills relevant to employability and personal development)
D1.listining skill
D2.managment skill
D3.conversation skill
D4.decision maker skill

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2		Introduction to Pharmacology.	smart board	Theoretical examination
2	3		Pharmacokinetics.	smart board	Theoretical examination
3	3		Drug receptor interaction and Pharmacodynamics. Drugs metabolism	smart board	Theoretical examination
4	1		The autonomic nervous system (ANS).	smart board	Theoretical examination
5	4		Cholinergic system.	smart board	Theoretical examination
6	4		Adrenergic system.	smart board	Theoretical examination
7	2		Principal of antimicrobial therapy.	smart board	Theoretical examination

8	4		β- lactam and other cell wall synthesis inhibitor antibiotics	smart board	Theoretical examination
9			MID EXAM	smart board	Theoretical examination
10	3		Protien synthesis inhibitors	smart board	Theoretical examination
11	3		Quinolones, Folate antagonists, and urinary tract antiseptics.	smart board	Theoretical examination
12	2		Antimycobacterium drugs	smart board	Theoretical examination
13	2		Antifungal drugs.	smart board	Theoretical examination
14	2		Antiprotozoal drugs.	smart board	Theoretical examination
15	2		Anthelmintic drugs.	smart board	Theoretical examination

11. Infrastructure	
1. Books Required reading:	Lippencott's pharmacology,
2. Main references (sources)	Text books
A- Recommended books and references (scientific journals, reports…).	Articles
B-Electronic references, Internet sites…	World health organization

12. The development of the curriculum plan
By the addition of only 20%of the syllabus to develop the pharmacology sciences

1. Teaching Institution	College Of Pharmacy
2. University Department/Centre	Al-Nahrain University -College Of Pharmacy -department of pharmacology
3. Course title/code	Pharmacology III
4. Modes of Attendance offered	Theoretical
5. Semester/Year	Second semester-Fourth year
6. Number of hours tuition (total)	30 hours
7. Date of production/revision of this specification	23-10-2022
8. Aims of the Course	
To introduce the pharmacy students to various drug groups affecting endocrine systems and their use in correcting abnormalities in the endocrine functions. Moreover the course will cover the drugs used in the management of neoplastic diseases, bone disorders, obesity and erectile dysfunction. Inflammatory agents and the anti-inflammatory drugs will also be covered during this course.	

9· Learning Outcomes, Teaching ,Learning and Assessment Methode
A- Cognitive goals . A1. How to dispense drugs A2. Patient education about drug adverse effect A3. How to communicate with patient and educate him A4. How to prepare lectures and seminars
B. The skills goals special to the course. B1. Drug use skill B2. Blood pressure measures skill B3.patient education skill

Teaching and Learning Methods
Board smart board power point
Assessment methods
Theoretical examination Practical examination Discussion groups
C. Affective and value goals C1.skills of thinking from translate, analysis, and extraction of ideas C2. Novel idea about new use of drugs
Teaching and Learning Methods
Board smart board power point
Assessment methods
Theoretical examination Practical examination Discussion groups

D. General and rehabilitative transferred skills(other skills relevant to employability and personal development)
D1.listining skill
D2.managment skill
D3.conversation skill
D4.decision maker skill

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2		Drugs acting on the respiratory system.	smart board	Theoretical examination
2	2		Hormones of the pituitary and thyroid glands.	smart board	Theoretical examination
3	1 1		Hormones of the pituitary and thyroid glands. Insulin and oral hypoglycemic drugs.	smart board	Theoretical examination
4	2		Insulin and oral hypoglycemic drugs.	smart board	Theoretical examination
5	2		Adreno-corticosteroids.	smart board	Theoretical examination
6	2		The gonadal hormones and inhibitors.	smart board	Theoretical examination
7	2		Autacoids and autacoid antagonists Histamin and antihistamin Serotonin	smart board	Theoretical examination
8	2		Autacoids and autacoid antagonists Histamin and antihistamin Serotonin	smart board	Theoretical examination
9			Mid exam	smart board	Theoretical examination

10			Mid exam	smart board	Theoretical examination
11	2		Non-steroidal anti-inflammatory drugs (NSAIDs) and other anti-gout agents.	smart board	Theoretical examination
12	2		Drugs used in erectile dysfunction.	smart board	Theoretical examination
13	2		Drugs used in osteoporosis.	smart board	Theoretical examination
14	2		Drugs used in the management of obesity.	smart board	Theoretical examination
15			Final exam	smart board	Theoretical examination

11. Infrastructure	
1. Books Required reading:	Lippencott's pharmacology
2. Main references (sources)	Text books
A- Recommended books and references (scientific journals, reports…).	Articles
B-Electronic references, Internet sites…	World health organization

12. The development of the curriculum plan
By the addition of only 20%of the syllabus to develop the pharmacology sciences

TEMPLATE FOR PHARMACOLOGY
III 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	College Of Pharmacy
2. University Department/Centre	Al-Nahrain University -College Of Pharmacy -department of pharmacology
3. Course title/code	Pharmacology III
4. Modes of Attendance offered	Theoretical
5. Semester/Year	Second semester-Fourth year
6. Number of hours tuition (total)	30 hours
7. Date of production/revision of this specification	23-10-2022
8. Aims of the Course	
To introduce the pharmacy students to various drug groups affecting endocrine systems and their use in correcting abnormalities in the endocrine functions. Moreover the course will cover the drugs used in the management of neoplastic diseases, bone disorders, obesity and erectile dysfunction. Inflammatory agents and the anti-inflammatory drugs will also be covered during this course.	

9· Learning Outcomes, Teaching ,Learning and Assessment Methode
A- Cognitive goals . A1. How to dispense drugs A2. Patient education about drug adverse effect A3. How to communicate with patient and educate him A4. How to prepare lectures and seminars
B. The skills goals special to the course. B1. Drug use skill B2. Blood pressure measures skill B3.patient education skill
Teaching and Learning Methods
Board smart board power point
Assessment methods
Theoretical examination Practical examination Discussion groups
C. Affective and value goals C1.skills of thinking from translate, analysis, and extraction of ideas C2. Novel idea about new use of drugs
Teaching and Learning Methods
Board smart board power point

Assessment methods

Theoretical examination
Practical examination
Discussion groups

D. General and rehabilitative transferred skills(other skills relevant to employability and personal development)
D1.listining skill
D2.managment skill
D3.conversation skill
D4.decision maker skill

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2		Drugs acting on the respiratory system.	smart board	Theoretical examination
2	2		Hormones of the pituitary and thyroid glands.	smart board	Theoretical examination
3	1 1		Hormones of the pituitary and thyroid glands. Insulin and oral hypoglycemic drugs.	smart board	Theoretical examination
4	2		Insulin and oral hypoglycemic drugs.	smart board	Theoretical examination
5	2		Adreno-corticosteroids.	smart board	Theoretical examination
6	2		The gonadal hormones and inhibitors.	smart board	Theoretical examination
7	2		Autacoids and autacoid antagonists Histamin and	smart board	Theoretical examination

			antihistamin Serotonin		
8	2		Autacoids and autacoid antagonists Histamin and antihistamin Serotonin	smart board	Theoretical examination
9			Mid exam	smart board	Theoretical examination
10			Mid exam	smart board	Theoretical examination
11	2		Non-steroidal anti-inflammatory drugs (NSAIDs) and other anti-gout agents.	smart board	Theoretical examination
12	2		Drugs used in erectile dysfunction.	smart board	Theoretical examination
13	2		Drugs used in osteoporosis.	smart board	Theoretical examination
14	2		Drugs used in the management of obesity.	smart board	Theoretical examination
15			Final exam	smart board	Theoretical examination

11. Infrastructure	
1. Books Required reading:	Lippencott's pharmacology
2. Main references (sources)	Text books

A- Recommended books and references (scientific journals, reports…).	Articles
B-Electronic references, Internet sites…	World health organization

12. The development of the curriculum plan
By the addition of only 20%of the syllabus to develop the pharmacology sciences

TEMPLATE FOR GENERAL TOXICOLOGY 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	College Of Pharmacy
2. University Department/Centre	Al-Nahrain University -College Of Pharmacy -department of pharmacology
3. Course title/code	General Toxicology
4. Modes of Attendance offered	Theoretical
5. Semester/Year	Second semester – Fourth year
6. Number of hours tuition (total)	30 hours
7. Date of production/revision of this specification	23-10-2022
8. Aims of the Course	
To study the principles of exposure to different chemicals and	
environmental factors and their sources as well as the mechanisms of toxicity and	
their risk to human beings. The course helps students understand the required	
measures to protect living organisms against suspected toxic hazards.	

9· Learning Outcomes, Teaching ,Learning and Assessment Methode
A- Cognitive goals . A1. How to dispense drugs A2. Patient education about drug adverse effect A3. How to communicate with patient and educate him A4. How to prepare lectures and seminars
B. The skills goals special to the course. B1. Drug use skill B2. toxin measures skill B3.patient education skill
Teaching and Learning Methods
Board smart board power point
Assessment methods
Theoretical examination
C. Affective and value goals C1.skills of thinking from translate, analysis, and extraction of ideas C2. Novel idea about toxin
Teaching and Learning Methods

Board

smart board

power point

Assessment methods

Theoretical examination
Practical examination
Discussion groups

D. General and rehabilitative transferred skills(other skills relevant to employability and personal development)
D1.listining skill
D2.managment skill
D3.conversation skill
D4.decision maker skill

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2		Introduction: general consideration; host factor, environmental factors of toxic effects.	smart board	Theoretical examination
2	2		Target organs and systemic toxicology: Renal system	smart board	Theoretical examination
3	2		Liver	smart board	Theoretical examination
4	2		Nervous system	smart board	Theoretical examination
5	2		Blood	smart board	Theoretical examination
6	2		Respiratory system, skin	smart board	Theoretical examination

7			MID EXAM	smart board	Theoretical examination
8	2		Cardiovascular system	smart board	Theoretical examination
9	2		Toxic substances: Metals	smart board	Theoretical examination
10	3		Food additive and contaminants Pesticides	smart board	Theoretical examination
11	2		Solvents,	smart board	Theoretical examination
12	2		Plants	smart board	Theoretical examination
13	2		Radiation and radioactive materials	smart board	Theoretical examination
14	2		Environmental toxicology: Air pollution, water and soil pollutants, Gases (Tear gas, Pepper spray), CO, Cyanide	smart board	Theoretical examination
15			Final exam		Theoretical examination

11. Infrastructure	
1. Books Required reading:	Goldfrank's Toxicologic Emergencies, Casarett and Doull Toxicology
2. Main references (sources)	Text books

A- Recommended books and references (scientific journals, reports…).	Articles
B-Electronic references, Internet sites…	World health organization

12. The development of the curriculum plan
By the addition of only 20%of the syllabus to develop the toxicology sciences

1. Teaching Institution	College Of Pharmacy
2. University Department/Centre	Al-Nahrain University -College Of Pharmacy -department of pharmacology
3. Course title/code	General Toxicology
4. Modes of Attendance offered	practical
5. Semester/Year	Second semester- Fourth year
6. Number of hours tuition (total)	30 hours
7. Date of production/revision of this specification	23-10-2022

8. Aims of the Course
To study the principle of exposure to different chemicals and
environmental factors, their sources, mechanisms of toxicity and their risk to human
being; it enables students to understand the required measures to protect living

9· Learning Outcomes, Teaching ,Learning and Assessment Method

A- Cognitive goals .

A1. How to use drugs

A2. Patient education about drug adverse effect

A3. How to communicate with patient and educate him

A4. How to prepare lectures and seminars

B. The skills goals special to the course.

B1. toxin use skill

B2. toxin measures skill

B3.patient education skill

Teaching and Learning Methods

power point

practical laboratory

Assessment methods

Practical examination

C. Affective and value goals

C1.skills of thinking from translate, analysis, and extraction of ideas

C2. Novel idea about toxin use

Teaching and Learning Methods

power point

practical laboratory

Assessment methods

Practical examination
Theoretical examination

D. General and rehabilitative transferred skills(other skills relevant to employability and personal development)
D1.listining skill
D2.managment skill
D3.conversation skill
D4.decision maker skill

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2		General introduction to toxicology I	Practical experiment	Practical exam
2	2		General introduction to toxicology II	Practical experiment	Practical exam
3	2		Acute toxicity study, determination of LD50	Practical experiment	Practical exam
4	2		Acute toxicity study, determination of LD50		
5	2		Drugs toxicity on liver	Practical experiment	Practical exam
6	2		Drugs toxicity on liver		
7	2		Nicotine toxicity	Practical experiment	Practical exam
8			MID EXAM	Practical experiment	Practical exam
9	2		Pesticide toxicity	Practical experiment	Practical exam
10	2		Pesticide toxicity		
11	2		Metal toxicity	Practical experiment	Practical exam
12	2		Blood toxicity	Practical experiment	Practical exam
13	2		Drug induced	Practical	Practical exam

			toxicity	experiment	
14	2		Strychnine toxicity	Practical experiment	Practical exam
15			Final exam		Practical exam

11. Infrastructure	
1. Books Required reading:	Goldfrank's Toxicologic Emergencies, Casarett and Doull Toxicology, toxicology laboratory manual
2. Main references (sources)	Text books
A- Recommended books and references (scientific journals, reports…).	Articles
B-Electronic references, Internet sites…	World health organization

12. The development of the curriculum plan
By the addition of only 20%of the syllabus to develop the toxicology sciences

TEMPLATE FOR PHYSIOLOGY I
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	College Of Pharmacy
2. University Department/Centre	Al-Nahrain University -College Of Pharmacy -department of pharmacology
3. Course title/code	Physiology I
4. Modes of Attendance offered	theoretical
5. Semester/Year	First semester- Second year
6. Number of hours tuition (total)	45 hours
7. Date of production/revision of this specification	23-10-2022
8. Aims of the Course	
To help students understand the basic principles of physiological functions of different	
tissues and organs of the human being, and how to evaluate these functions and correlate them with the	
normal and abnormal conditions. It emphasizes on the role of homeostatic and hemodynamic changes	
in the integration of physiological status.	

9· Learning Outcomes, Teaching ,Learning and Assessment Methode
A- Cognitive goals . A1. How body organs work A2. Patient education about body organ functions A3. How to communicate with patient and educate him A4. How to prepare lectures and seminars
B. The skills goals special to the course. B1. Body organ function skill B2. Blood pressure measures skill B3. patient education skill
Teaching and Learning Methods
Board smart board power point
Assessment methods
Theoretical examination
C. Affective and value goals C1.skills of thinking from translate, analysis, and extraction of ideas C2. Novel idea about body organ function
Teaching and Learning Methods

Board

smart board

power point

Assessment methods

Theoretical examination

D. General and rehabilitative transferred skills(other skills relevant to employability and personal development)
D1.listining skill
D2.managment skill
D3.conversation skill
D4.decision maker skill

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	3		General and cellular basis of medical physiology.	smart board	Theoretical examination
2	2 1		General and cellular basis of medical physiology. Physiology of nerves and muscles: Nerve cells; excitation and conduction.	smart board	Theoretical examination
3	3		Properties of mixed nerves; glia; neurotrophins; Nerve fiber types and functions: Muscles: Skeletal muscle.	smart board	Theoretical examination

4	3		Smooth muscle; cardiac muscle.	smart board	Theoretical examination
5	3		Synaptic transmission: Reflexes; cutaneous, deep and visceral sensations; alert behavior.	smart board	Theoretical examination
6	3		Sleep and electrical activity of the brain; Control of posture and movement; higher function of the nervous system.	smart board	Theoretical examination
7	3		Central regulation of visceral function; the autonomic nervous system.	smart board	Theoretical examination
8	3		Respiration: Respiratory zones; Mechanics of respiration; air volumes; respiratory muscles; compliance of the lungs and chest wall; surfactants.	smart board	Theoretical examination
9	3		Differences in ventilation and blood flow in deferent parts of the lung: Dead space and uneven ventilation, Pulmonary circulation: Pressure, volume and flow. Gas transport between the lungs and tissue; Regulation of	smart board	Theoretical examination

			respiration: Neural control of breathing: Respiratory centers.		
10	2 1		Regulation of respiratory activity: Chemical factors; non chemical factors, Respiratory adjustment in health and disease; Effect of exercise; Hypoxia; Emphysema; Asthma. Renal Physiology: Introduction; innervations of the renal vessels; renal clearance; Renal blood flow.	smart board	Theoretical examination
11	3		Glomerular filtration rate (GFR): Measurements; factor affecting GFR; Filtration fraction; reabsorption of Na, Cl and glucose, Tubuloglomerular feedback and glomerulotubular balance;	smart board	Theoretical examination
12	3		water excretion in: proximal tubules; loop of henle; distal tubules; collecting ducts; the counter current mechanism; role of urea; water diuresis and osmotic	smart board	Theoretical examination

			diuresis; acidification of the urine, H secretion; reaction with buffers; ammonia secretion.		
13	1 2		factors affecting acid secretion; bicarbonate execration; regulation of Na^+, K^+ and Cl^- excretion; uremia; acidosis; micturition. Cardiovascular system: origin and spread of cardiac excitation; the electrocardiogram; cardiac arrhythmias; Electrographic findings in cardiac diseases; mechanical events of the cardiac cycle.	smart board	Theoretical examination
14	3		Cardiac output; cardiovascular regulatory mechanisms: Local regulatory mechanisms; systemic regulation by the nervous system.	smart board	Theoretical examination
15	2		Systemic regulation by hormones: Coronary circulation; Hypertension: Heart failure; Angina pectoris.	smart board	Theoretical examination

11. Infrastructure	
1. Books Required reading:	*Review of Medical Physiology; Ganong W.F* and *Textbook of Medical Physiology by Guyton AC*
2. Main references (sources)	Text books
A- Recommended books and references (scientific journals, reports…).	Articles
B-Electronic references, Internet sites…	World health organization

12. The development of the curriculum plan
By the addition of only 20%of the syllabus to develop the physiology sciences

1. Teaching Institution	College Of Pharmacy
2. University Department/Centre	Al-Nahrain University -College Of Pharmacy -department of pharmacology
3. Course title/code	Physiology I
4. Modes of Attendance offered	practical
5. Semester/Year	First semester- Second year
6. Number of hours tuition (total)	30 hours
7. Date of production/revision of this specification	23-10-2022
8. Aims of the Course	
To enable students understanding the basic principles of physiological	
functions of different tissues and organs of the human being, and how to evaluate	
these functions and correlate them with the normal and abnormal conditions. It also	
emphasizes on the role of homeostatic and hemodynamic changes in the integration of	
physiological status.	

9· Learning Outcomes, Teaching ,Learning and Assessment Method

A- Cognitive goals .

A1. How body organs work

A2. Patient education about body organs

A3. How to communicate with patient and educate him

A4. How to prepare lectures and seminars

B. The skills goals special to the course.

B1. Body organs functions measures skill

B2. Blood pressure measures skill

B3. patient education skill

Teaching and Learning Methods

power point

practical laboratory

Assessment methods

Theoretical examination

Practical examination

Discussion groups

Practical experiment

C. Affective and value goals

C1.skills of thinking from translate, analysis, and extraction of ideas

C2. Novel idea about body functions

Teaching and Learning Methods

power point

practical laboratory

Assessment methods
Theoretical examination Practical examination Discussion groups Practical experiment
D. General and rehabilitative transferred skills(other skills relevant to employability and personal development) D1.listining skill D2.managment skill D3.conversation skill D4.decision maker skill

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2		Experiments on respiratory system (respiratory rate and volumes).	Practical experiment	Practical exam
2	2		Experiments on respiratory system (respiratory rate and volumes).	Practical experiment	Practical exam
3	2		Introduction to blood physiology.	Practical experiment	Practical exam
4	2		Blood typing and blood transfusion.	Practical experiment	Practical exam
5	2		Tutorial.	Practical experiment	Practical exam
6	2		Packed cell volume.	Practical experiment	Practical exam
7	2		Determination of hemoglobin concentration.	Practical experiment	Practical exam
8	2		Blood indecies.	Practical experiment	Practical exam
9	2		Determination of bleeding time and clotting time.	Practical experiment	Practical exam
10	2		Tutorial.	Practical experiment	Practical exam

11	2		Blood pressure.	Practical experiment	Practical exam
12	2		Effect of exercise on blood pressure.	Practical experiment	Practical exam
13	2		Effect of exercise on blood pressure.	Practical experiment	Practical exam
14	2		Electrocardiogram (ECG).	Practical experiment	Practical exam
15	2		Tutorial and review.	Practical experiment	Practical exam

11. Infrastructure	
1. Books Required reading:	Physiology laboratory manual
2. Main references (sources)	Text books
A- Recommended books and references (scientific journals, reports…).	Articles
B-Electronic references, Internet sites…	World health organization

12. The development of the curriculum plan
By the addition of only 20%of the syllabus to develop the physiology sciences

TEMPLATE FOR PHYSIOLOGY II
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	College Of Pharmacy
2. University Department/Centre	Al-Nahrain University -College Of Pharmacy -department of pharmacology
3. Course title/code	Physiology II
4. Modes of Attendance offered	theoretical
5. Semester/Year	Second semester – Second year
6. Number of hours tuition (total)	45 hours
7. Date of production/revision of this specification	23-10-2022
8. Aims of the Course	
To help students understand the basic principles of physiological	
functions of different tissues and organs of the human being, and how to evaluate	
these functions and correlate them with the normal and abnormal conditions. It	
emphasizes on the role of homeostatic and hemodynamic changes in the integration of	
physiological status.	

9· Learning Outcomes, Teaching ,Learning and Assessment Method
B- Cognitive goals . A1. How body organs work A2. Patient education about body organs function A3. How to communicate with patient and educate him A4. How to prepare lectures and seminars
B. The skills goals special to the course. B1. Body function measure skill B2. Blood pressure measures skill B3. patient education skill
Teaching and Learning Methods
Smart board power point
Assessment methods
Theoretical examination
C. Affective and value goals C1.skills of thinking from translate, analysis, and extraction of ideas C2. Novel idea body functions
Teaching and Learning Methods
Board smart board power point
Assessment methods

Theoretical examination
D. General and rehabilitative transferred skills(other skills relevant to employability and personal development) D1.listining skill D2.managment skill D3.conversation skill D4.decision maker skill
10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	3		Gastrointestinal function: Digestion and absorption of carbohydrates, proteins; lipids; absorption of water and electrolytes;	smart board	Theoretical examination
2	3		vitamins and minerals;	smart board	Theoretical examination
3	3		regulation of gastrointestinal function: Introduction; gastrointestinal hormones; mouth and esophagus; stomach; exocrine portion of the pancreas; liver and biliary system	smart board	Theoretical examination
4	1 2		; small intestine; colon. Circulatory body fluid: Introduction; blood; bone marrow;	smart board	Theoretical examination
5	3		white blood cells; immunity;	smart board	Theoretical examination
6	3		platelets; red blood cells; anemia; polycythemia;	smart board	Theoretical examination
7	3		blood group and Rh factor; hemostasis:	smart board	Theoretical

					examination
8	3		The clotting mechanism / blood coagulation tests; anti clotting mechanism; the plasma; the lymph; abnormalities of hemostasis.	smart board	Theoretical examination
9	3		Endocrinology: Introduction; energy balance, metabolism and nutrition;	smart board	Theoretical examination
10	3		the pituitary gland;	smart board	Theoretical examination
11	3		the thyroid gland;	smart board	Theoretical examination
12	3		the gonads: development and function of the reproductive system;	smart board	Theoretical examination
13	3		the adrenal medulla and adrenal cortex;	smart board	Theoretical examination
14	3		hormonal control of calcium metabolism and the physiology of the bone;	smart board	Theoretical examination
15	2		endocrine functions of the pancreas and regulation of carbohydrate metabolism.	smart board	Theoretical examination

11. Infrastructure	
1. Books Required reading:	*Review of Medical Physiology; Ganong W.F* and *Textbook of Medical Physiology by Guyton AC*

2. Main references (sources)	Text books
A- Recommended books and references (scientific journals, reports…).	Articles
B-Electronic references, Internet sites…	World health organization

12. The development of the curriculum plan
By the addition of only 20%of the syllabus to develop the physiology sciences

1. Teaching Institution	College Of Pharmacy
2. University Department/Centre	Al-Nahrain University -College Of Pharmacy -department of pharmacology
3. Course title/code	Physiology II
4. Modes of Attendance offered	practical
5. Semester/Year	Second semester- Second year
6. Number of hours tuition (total)	30 hours
7. Date of production/revision of this specification	23-10-2022
8. Aims of the Course	
To enable students understanding the basic principles of physiological	
functions of different tissues and organs of the human being, and how to evaluate	
these functions and correlate them with the normal and abnormal conditions. It also	
emphasizes on the role of homeostatic and hemodynamic changes in the integration of	
physiological status.	

9· Learning Outcomes, Teaching ,Learning and Assessment Method

B- Cognitive goals .
A1. How body organs work
A2. Patient education body functions
A3. How to communicate with patient and educate him
A4. How to prepare lectures and seminars

B. The skills goals special to the course.
B1. Body functions measure skill
B2. Blood pressure measures skill
B3.patient education skill

Teaching and Learning Methods

Board

smart board

power point
practical laboratory

Assessment methods

Theoretical examination
Practical examination
Practical experiment

C. Affective and value goals
C1.skills of thinking from translate, analysis, and extraction of ideas
C2. Novel idea body function measure

Teaching and Learning Methods

Board

smart board

power point

practical laboratory

Assessment methods
Theoretical examination Practical examination Practical experiment

D. General and rehabilitative transferred skills(other skills relevant to employability and personal development) D1.listining skill D2.managment skill D3.conversation skill D4.decision maker skill

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2		Differential W.B.C count	Practical experiment	Practical exam
2	2		Differential W.B.C count	Practical experiment	Practical exam
3	2		Total W.B.C. count	Practical experiment	Practical exam
4	2		Tutorial	Practical experiment	Practical exam
5	2		Red blood cell counting	Practical experiment	Practical exam
6	2		Platelets counting	Practical experiment	Practical exam
7	2		Erythrocyte sedimentation rate (ESR)	Practical experiment	Practical exam
8	2		Tutorial	Practical experiment	Practical exam
9			Midterm exam		
10			Midterm exam		
11	2		Insulin regulation of blood glucose	Practical experiment	Practical exam
12	2		Renal physiology	Practical experiment	Practical exam
13	2		Some experiments on vision	Practical experiment	Practical exam
14	2		Tutorial and review	Practical	Practical exam

				experiment	
15			Final exam	Practical experiment	Practical exam

11. Infrastructure	
1. Books Required reading:	Practical Physiology manual
2. Main references (sources)	Text books
A- Recommended books and references (scientific journals, reports…).	Articles
B-Electronic references, Internet sites…	World health organization

12. The development of the curriculum plan
By the addition of only 20%of the syllabus to develop physiology sciences

TEMPLATE FOR MEDICAL TERMINOLOGY 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	College Of Pharmacy
2. University Department/Centre	Al-Nahrain University -College Of Pharmacy -department of pharmacology
3. Course title/code	Medical terminology
4. Modes of Attendance offered	Theoretical
5. Semester/Year	First year
6. Number of hours tuition (total)	15 hours
7. Date of production/revision of this specification	23-10-2022
8. Aims of the Course	
To teach students how to pronounce, spell and define medical and pharmaceutical terms used in health care settings. It will use a word-building strategy that helps them discover connections and relationships among word roots, prefixes, and suffixes. Students will learn the meaning of each part of a complex medical and pharmaceutical term, be able to put the parts together and define the term.	

9· Learning Outcomes, Teaching ,Learning and Assessment Method
A- Cognitive goals . A1. How to learn medical terms A2. Pharmacist student education about terms A3. How to communicate with patient and educate him A4. How to prepare lectures and seminars
B. The skills goals special to the course. B1. term use skill B2. Term understand skill B3.pharmacist education skill
Teaching and Learning Methods
Board smart board power point
Assessment methods
Theoretical examination
C. Affective and value goals C1.skills of thinking from translate, analysis, and extraction of ideas C2. Novel idea about term use
Teaching and Learning Methods
Board smart board

power point

Assessment methods

Theoretical examination

D. General and rehabilitative transferred skills(other skills relevant to employability and personal development)
D1.listining skill
D2.managment skill
D3.conversation skill
D4.decision maker skill

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1		Basic word roots and common suffixes	smart board	Theoretical examination
2	1		More word roots, suffixes and prefixes related to pharmaceutical sciences (pharmacognosy, clinical pharmacy, pharmaceutics,…etc)	smart board	Theoretical examination
3	1		Basic anatomical terms and abnormal conditions	smart board	Theoretical examination
4	1		Basic anatomical terms and abnormal conditions	smart board	Theoretical examination
5	1		The genitals and urinary tract	smart board	Theoretical examination
6	1		The gastrointestinal tract	smart board	Theoretical examination

7	1		The heart and cardiovascular system	smart board	Theoretical examination
8	1		Symptoms, diagnoses, treatments, communication qualifiers, and statistics	smart board	Theoretical examination
9	1		Symptoms, diagnoses, treatments, communication qualifiers, and statistics	smart board	Theoretical examination
10	1		Growth and development, and body orientation	smart board	Theoretical examination
11	1		Gynecology, pregnancy, and childbirth	smart board	Theoretical examination
12	1		The eye and the respiratory tract	smart board	Theoretical examination
13	1		The nervous system and behavioral disorders	smart board	Theoretical examination
14	1		The nervous system and behavioral disorders	smart board	Theoretical examination
15	1		Blood and immunity	smart board	Theoretical examination

11. Infrastructure	
1. Books Required reading:	A Short Course in Medical Terminology
2. Main references (sources)	Text books

A- Recommended books and references (scientific journals, reports…).	books
B-Electronic references, Internet sites…	Medical dictionary

12. The development of the curriculum plan
By the addition of only 20%of the syllabus to develop medical term sciences