

MASTER OF PHARMACEUTICAL SCIENCES

ASSESSMENT AND APPLICATIONS OF PHYTOTHERAPEUTIC DRUGS

**HANDBOOK** 

V3



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# INTRODUCTION

College of Pharmacy, Prince Sattam Bin Abdulaziz University is one of the recent scientific edifices that was approved in 1428 H. It was established to share with other Pharmacy Institutions in other Saudi Universities in preparing well qualified Pharmacist for the future. Qualified Pharmacists are expected to play a great role in reforming the Kingdom Health Care system.

The Department of Pharmacognosy is one of the most active Departments in the College in term of scientific research. The first Master Program in the College was approved in the Pharmacognosy Department. As the use of Traditional Medicine is highly trusted in the Kingdom as well as in the region, the wide spread of natural products in a well manufactured pharmaceutical forms in the Kingdom and worldwide made a huge increase in the use of natural products mainly from plant sources. In the Kingdom more than 1740 pharmaceutical products containing plant extracts are available on the market. Moreover, a lot of these products can be purchased online. The safety and efficacy of such products must be confirmed and closely monitored. To perform such a job successfully the preparation of a well-qualified Pharmacist with deep knowledge in the field of natural products is a must. This program "Master of Pharmaceutical Sciences/ Assessment and Applications of Phytotherapeutic Drugs" is one of the few offered programs that serve this crucial nationally required goal. The graduates will be prepared to have the capabilities to evaluate safety, efficacy and authenticity of market natural products.

# 1. MISSION, VISION, AND GOALS

#### **Mission**

This program aims to prepare distinguished graduates with a high degree of knowledge in the field of phytotherapy and phytopharmaceutical assessment that contribute effectively to academic environment, scientific research, and community needs.

#### **Vision**

Our master's program envisions a future where graduates are recognized as esteemed professionals, possessing outstanding expertise and capabilities, committed to advancing the assessment and applications of plant-based medicines and natural products to make a significant impact on the academic, scientific, and community landscapes.

#### Goals

- Preparing remarkable graduates with specialized qualifications and skills in the field of phytotherapeutic drugs to compete in the labor market.
- Developing research skills of graduates to produce impactful scientific research locally and internationally.
- Enhancing graduates' capacity to uphold ethical values, demonstrate social responsibility, and foster sustainable educational advancement.

#### **Objectives**

- Equipping students with in-depth knowledge to recognize and predict the composition, pharmacological properties, mechanisms of action, and therapeutic applications of phytotherapeutic drugs.
- Providing students with the skills to assess and evaluate the safety, efficacy, and quality of phytotherapeutic drugs.
- Supplying students with specialized qualifications and the skills to apply and assess herbal medicines and phytopharmaceuticals, thus enriching professional performance in all fields, including pharmaceutical and research fields.

- Enhancing students' research competencies, scientific writing abilities, commitment to lifelong learning, ethical practices, and social responsibility.
- Ensuring continuous enhancement of teaching and learning processes for optimal educational outcomes.

# 2. PROGRAM LEARNING OUTCOMES

In simpler terms, program learning outcomes (PLOs) are what students should know and be able to do after finishing their degree in this program. These include not just knowledge, but also practical skills and a grasp of important values and concepts. In this program our PLOs are as follows

#### Knowledge and Understanding:

- K1 Describe the concepts, principles, and methods used in the identification, standardization, biological evaluation, and therapeutic applications of phytomedicinal products.
- K2 Explain the methods and techniques used in the assessment of quality, safety, and efficacy of herbal drugs and phytopharmaceuticals.
- K3 Recognize ethical, legal, and regulatory principles of professional practice of phytotherapy.

#### Skills:

- S1 Apply evidence-based knowledge to ensure scientifically verified efficacy and safety of herbal drugs and phytopharmaceuticals.
- Apply scientific research methodologies, employ materials, instruments, and technologies to analyze and interpret data pertaining to phytotherapeutic drugs, and make valuable contributions to the field of natural products knowledge.
- Accurately assess and evaluate professional reports and publish research papers in scientific journals and conferences to solve problems on the applications and assessment of phytopharmaceuticals.
- S4 Demonstrate effective presentation and communication capability in front of a range of audiences.

## Values, Autonomy, and Responsibility:

- V1 Adopt ethical, legal, and professional responsibilities and safety guidelines.
- V2 Contribute to improving the quality of life in the community by demonstrating social and cultural values that fulfill community needs and raise awareness about the use of herbal drugs.
- V3 Promote leadership and independent initiative in planning, self-learning capability, and effective participation in research with high autonomy and responsibility.

# 3. GRADUATES ATTRIBUTES

Graduate attributes refer to the skills, knowledge, and abilities of our graduates, beyond disciplinary content knowledge, that are applicable in a range of contexts in their lives.

In this Program, graduate's attributes are as follows:

- Demonstrate in-depth knowledge with a comprehensive understanding of the principles, theories, and practices related to phytotherapeutic drugs.
- Demonstrate research skills, including experimental design, literature reviews, analysis, interpretation of results, understanding of the ethical considerations related to phytotherapeutic drugs.
- Foster a commitment to lifelong learning and professional development by providing graduates with the skills and motivation to stay updated with the latest advancements in the field.
- Display experience in applying various analytical and laboratory techniques in the assessment of phytotherapeutic drugs, such as chromatography, spectroscopy, and bioassay methods for evaluating the potency and safety.
- Exhibit a deep understanding of the pharmacological and toxicological properties of phytotherapeutic drugs and evidence-based approaches enabling them to contribute effectively to the improvement of healthcare in the society.
- Develop critical thinking skills and problem-solving skills, allowing them to propose innovative solutions to challenges in the field.
- Show communication and presentation skills and capability to convey scientific information in both written and oral formats.
- Work effectively in multidisciplinary teams and show adaptability to new situations by collaborating with other researchers, healthcare professionals, industry stakeholders.

# 4. IMPORTANCE OF THE PROGRAM

There are many benefits to taking a master's degree. While it requires discipline and stamina to complete, it strengthens skills that are important in daily life. These skills include critical thinking, analytic abilities, time management and presentation skills, all of which also helps you succeed in the workplace.

#### **Importance of Our Program**

- Prepare qualified National personnel in Phytotherapy and phytopharmaceutical
  assessment. There is a big problem in the Saudi Community due to the widespread use
  of Herbal products through impostors without any scientific background. Both College of
  Pharmacy at King Saud University and College of Pharmacy at King Abdulaziz
  University offer traditional Master's degree in Pharmacognosy dealing mainly with the
  subjects from pure academic point of view. This program is unique since it is more
  concerned with the practical application of Herbal products knowledge based on
  scientific evidence to better serve the community in this attractive area.
- Knowledge transfer and settlement of proper practice through the program graduates with their acquired specialized competencies in the management and development of application of Phytotherapy and standardization of Herbal products.
- The program seeks to develop students' skills in Phytotherapy and phytopharmaceutical
  assessment in terms of methods used to discover and develop pharmaceuticals from
  plant extracts, and also methods of analysis of pharmaceutical and natural products
  available in the market or abused substances using the most advanced devices.
- Enhance the scientific research and improve the skills of the students in Phytotherapy and phytopharmaceutical assessment through the Master program and to achieve systematic understanding of the knowledge and skills required in the health care applications.
- Add critical consciousness for better understanding about the current problems of Pharmacy and highlight new insights into the practice of pharmacy through the supervised and safe use of Herbal products.
- Comprehensive understanding of modern technologies and their application in the field of pharmacy using problem-solving skills and evaluation and research methods and data analysis.

- Study the safety of drugs extracted from natural sources, naturally derived pharmaceuticals and herbal products and evaluates their efficacy and contribution in the drug market in Saudi Arabia.
- Considering the inherited practice of Traditional medicine one of the important sources
  of knowledge and apply modern technology through research and investigation to verify
  its value and accumulate proper knowledge in pharmaceutical science.
- Continuous professional development of pharmaceutical science and integrate new skills in this field.

#### The Community needs for the Program:

- There is a great interest among Saudi citizens to acquire knowledge and use herbs and herbal products produced locally or imported elsewhere. The proposed program was designed to meet the community needs through well qualified personnel in this field.
- To establish qualified students in the field of administrative and technical consultancy that serves the health institutions in public and private sectors.
- The program aims to prepare qualified graduate students with great knowledge in Phytotherapy, phytopharmaceutical and their modern applications, contribute in educational, research and health institutes in public and private sectors to provide belter services.
- Participate in the strategic planning for better understanding and use of Phytotherapy and phytopharmaceutical assessment.
- Raising community awareness of the importance of medicinal plants in the discovery of new drug entities using the proper scientific approach.

# 5. PROGRAM STAKEHOLDERS

Stakeholders are individuals or groups internal or external to an organization who can positively or negatively influence a program. They expect positive results and can provide valuable input for the program. Stakeholders in our program as follows:

- Universities (Pharmacy colleges, Science, Agriculture) as academic and researchers.
- Research centers related to this field.
- Ministry of health.
- National center for Complementary and Alternative Medicine.
- Food and Drug Agency Saudi Arabia (SFDA).
- Anti-Narcotics Directorate of the Ministry of the Interior.
- Forensic Directorate Ministry of health.
- Public Pharmacies and herbal shops.

#### Professions/jobs for which students are qualified:

- Qualified pharmacist in the field of natural products/ phytopharmaceuticals.
- Teaching assistant in Pharmacognosy Departments.

#### Relevant occupational / Professional sectors:

 Phytotherapist, herbal practitioner, medicinal and aromatic plants specialist, herbal industry, sales consultant for herbal company, blogger, research assistant in the field of natural products.

# 6. ADMISSION AND REGULATIONS

To be admitted to the program there is general requirements and department specific requirements. The students need to fulfill them all.

#### Generally, admissions to the post-graduate studies stipulate the following:

- The applicant must be a Saudi citizen or a non-Saudi with an official grant for postgraduate studies.
- The applicant must have degree of Bachelor of Science in pharmacy or Doctor of Pharmacy degree from Saudi university or any other recognized university.
- He must have a good reputation and conduct and must be physically fit.
- He should submit two letters of recommendations from professors who taught him before
- Should be entirely devoted to the study in the master phase.

#### Department specific requirements for admission are as follows:

In addition to the admission conditions stated in the unified regulation roles for graduate studies in Saudi universities (role 13), the applicant must:

- The applicant must graduate with a bachelor's degree in pharmacy from a recognized university.
- Obtain (4.5) in IELTS exam or any equivalent exam decided by the department before commencing the study in the program.
- Pass writing exam and a personal interview in accordance with the standards defined by the joint commission for the program.

## **Academic requirements**

Credit hours serve a very important purpose in relation to how a student can track their progress towards earning the degree. In order to earn a master's degree from the college and the university, students typically need to earn a minimum number of credit hours as follows:

Academic requirement for the Degree				
Number of units of compulsory courses within the department	20	Number of units of elective courses within the department	4	
Number of units of compulsory courses outside the department (if available)		Number of units of elective courses outside the department		
Total Number of units	24	Total Number of units		

Note: According to the rules of Graduate Studies the thesis/ dissertation option should not be less than 24 credits and without the thesis/ dissertation the option should be at least 42 credits.

# 7. CURRICULUM

The master curriculum is a guiding tool for planning the details of the education process, so that students can learn in an organized, orderly, and sequenced manner.

### **Curriculum structure**

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Course	Required	11	20	66.7%
	Elective	2	4	13.3%
Graduation Project (if any)				
Thesis (if any)	Thesis	1	6	20%
Field Experience (if any)				
Others ()				
Total		14	30	100%

### **Program Courses**

Level	Course Code	Course Title	Required or Elective	Pre- Requisite Courses	Credit Hours	Type of requirements (Institution,
Level	PHG 611	Herbal Drugs Macro- & Microscopical Analysis	Required	-	1+1	Program
	PHG 612	Phytomedicinal Products	Required	-	1+0	Program
	PHG 613	Production, Collection and Isolation of Herbal Medicines	Required	-	2+1	Program
	PHG 614	Phytotherapy I	Required	-	2+0	Program
Level	PHG 621	Phytotherapy II	Required	PHG 614	2+0	Program
2	PHG 622	Quality Control of Phytopharmaceuticals	Required	PHG 611	1+1	Program

	PHG 623	Principles and Applications of Spectroscopic Techniques	Required	PHG 613	2+1	Program
	PHG 624	Herbal Drugs licensing and Regulations	Required	-	1+0	Program
Level	PHG 631	Biological Evaluation of Natural Products	Required	-	1+1	Program
	PHG 632	Seminar in Phytotherapy	Required	-	1+0	Program
	PHG 633	Toxicity and Safety of Herbal Medicine	Required	-	1+0	Program
	PHG XXX	Elective I	Elective	-	2+0	Program
	PHG XXX	Elective II	Elective	-	2+0	Program
Level	PHG 699	Thesis	Required		0+6	Program

# Elective courses for level 3 (Third semester):

Level	Course Code	Course Title	Required or Elective	Pre- Requisite Courses	Credit Hours	Type of requirements (Institution,
Level 3	PHG 634	Microbial Biotransformation & Tissue Culture	Elective	-	2+0	Program
	PHG 635	Aromatherapy	Elective	-	2+0	Program
	PHG 636	Phytocosmecuticals	Elective	-	2+0	Program
	PHG 637	Alternative & Complementary Medicine	Elective	-	2+0	Program
	PHG 638	Herb-Drug Interactions	Elective	-	2+0	Program
	PHG 639	Forensic Pharmacognosy	Elective	-	2+0	Program

## **Course Specifications**

A hyperlink for all course specifications using NCAAA template (T-104):

https://drive.google.com/drive/folders/1k-xhF1FxdQ5QzdkhFJplph-RTRW3ouOj?usp=drive link



# **Requirements of the Degree**

# Study Plan

Name of Degree	Master of Pharmaceutical Sciences /
Awarded	Assessment and Applications of Phytotherapeutic Drugs

	First Semester					
No	Course		Number o	f Unites		
	Code	Course Name	Contact Hours	Credit Hours		
1	PHG 611	Herbal Drugs Macro- & Microscopical Analysis	(1,0,1)	2		
2	PHG 612	Phytomedicinal Products	(1,0,0)	1		
3	PHG 613	Production, collection and isolation of herbal medicines	(2,0,1)	3		
4	PHG 614	Phytotherapy I	(2,0,0)	2		
		(6,0,2)	8			

	Second Semester					
No	Course		Number o	f Unites		
	Code	Course Name	Contact Hours	Credit Hours		
1	PHG 621	Phytotherapy II	(2,0,0)	2		
2	PHG 622	Quality Control of Phytopharmaceuticals	(1,0,1)	2		
3	PHG 623	Principles and Applications of Spectroscopic Techniques	(2,0,1)	3		

4	PHG 624	Herbal Drugs licensing and Regulations	(1,0,0)	1
		Total Units	(6,0,2)	8

	Third Semester					
No	Course Course	Number o	f Unites			
	Code	Course Name	Contact Hours	Credit Hours		
1	PHG 631	Biological Evaluation of Natural Products	(1,0,1)	2		
2	PHG 632	Seminar in Phytotherapy	(1,0,0)	1		
3	PHG 633	Seminar in Phytotherapy	(1,0,0)	1		
4	PHG xxx	Elective Course	(2,0,0)	2		
5	PHG xxx	Elective Course	(2,0,0)	2		
		(7,0,1)	8			

	Fourth Semester					
No	Course		Number o	f Unites		
	Code Course Name	Contact Hours	Credit Hours			
1	PHG 699	Thesis	(6,0,0)	6		
	Total Units			6		

## **Elective Courses**

Credit	Units	Course Name	Course Code
2	(2,0,0)	PHG 634	Microbial Biotransformation& Tissue Culture
2	(2,0,0)	PHG 635	Aromatherapy
2	(2,0,0)	PHG 636	Phytocosmecuticals
2	(2,0,0)	PHG 637	Alternative & Complementary Medicine
2	(2,0,0)	PHG 638	Herb-Drug Interactions
2	(2,0,0)	PHG 639	Forensic Pharmacognosy

### **Course Descriptions**

## Herbal Drugs Macro- & Microscopical Analysis

Course Code: PHG 611

Credit hours: 1+1

Level/year at which this course is offered: 1st Level; 1st Year

This course aims to provide students with the necessary information on the macroscopic and microscopic characteristics of the various parts of the plant, such as roots, leaves, flowers, and seeds. This course also includes a study on the classification of plants; with some practical applications and how to define the plant in the form of powder under the microscope, with a focus on the most widespread and commonly used plants in the Kingdom of Saudi Arabia such as Chamomile, Senna, Olive leaves, Black seed, Garden Cress and Costus.

# Phytomedicinal Products

Course Code: PHG 612

Credit hours: 1+0

Level/year at which this course is offered: 1st Level; 1st Year

This course deals with the ingredients of the plants that used in treatments of various diseases. Origin of these Phytochemicals, chemical structures, quantitation and biological activities and usage area, dosages, side effects and contraindications. Taxol, Silymarin and Diosmin are examples of such compounds.

#### Phytomedicinal Products Production, Collection and Isolation of Herbal Medicines

Course Code: PHG 613

Credit hours: 2+1

Level/year at which this course is offered: 1st Level; 1st Year

This course covers the different methods applied for the purification of natural products after extraction. Methods based on the physical characters such as boiling points, solubility or acid base characters will be presented.

As the chromatographic methods are the most efficient and applied method for natural products purification the principles and application of chromatography in natural products' purification and identification will be covered in detail.

Different techniques of chromatographic purification, including different types of column chromatography using positive and negative pressure, thin layer chromatography, and its various application in natural products.

Different types of stationary phases and the proper selection of their use based on the nature of the natural compounds will be covered.

The principles of qualitative and quantitative application of chromatography will be covered.

Pharmacopeial examples for the identification, analysis, purity confirmation, and detection of adulteration or exhaustion of drugs from the natural origin will be provided from the internationally recognized Pharmacopeias as well as from the World Health Organization (WHO) monographs of Herbal Drugs.

Phytotherapy I				
Course Code:	PHG 614			
Credit hours: 2+0				
Level/year at which this course is offered: 1st Level; 1st Year				

This course aims to provide the students with knowledge about using phytotherapeutical drugs to manage various health problems. Learning and understanding the benefits and potentially dangerous situations of using phytotherapy in order to achieve the proper application of this therapy. Students who complete this course with the necessary studies can provide support and consulting services in this regard on a scientific basis. This course will deal with plants affecting the central nervous system, urinary system, respiratory system, digestive system diseases, and gynecology phytotherapeutics.

Phytotherapy II				
Course Code:	PHG 621			
Credit hours: 2+0				
Level/year at which this course is offered: 2 <sup>nd</sup> Level: 1 <sup>st</sup> Year				

This course aims to provide the students with the knowledge about using medicinal plants and natural products in the management of disorders affecting the cardiovascular system, liver and biliary system, skin, obesity and the immune system. It includes the official names, synonyms, natural sources, bioactive components, mechanism of action, indications, proper dosing, available dosage in the market, precautions, adverse reactions, contraindications, herb-herb and herb-drug interactions, and toxicity.

## **Quality Control of Phytopharmaceuticals**

Course Code: PHG 622

Credit hours: 1+1

Level/year at which this course is offered: 2<sup>nd</sup> Level; 1<sup>st</sup> Year

This course aims to provide students with knowledge and experience about proper evaluation of medicinal herbal products according to pharmacopoeia standards.

Students will acquire knowledge about monographs and how to use them in the evaluation process. Examples of selected monograph analysis will be discussed based on the highly developed Pharmacopoeias such as American & European & British Pharmacopoeias and British Herbal Pharmacopeia.

All pharmacopeial experimental procedures including Physical and physicochemical examination, preparation of reagents, solvent used, extraction of the active ingredients of herbal drug, distillation methods, chromatographic methods, IR, UV, atomic absorption spectroscopic analysis will be discussed.

Saudi Food and Drug Administration (SFDA) regulations will be also covered.

Modern methods using integrated chromatography with spectroscopic tools such as HPTLC, HPLC-UV, HPLC-MS and GC-MS to develop fingerprinting chromatograms for proper identification of the chemical components and assure the absence of adulteration.

# **Principles and Applications of Spectroscopic Techniques**

Course Code: PHG 623

Credit hours: 2+1

Level/year at which this course is offered: 2<sup>nd</sup> Level; 1<sup>st</sup> Year

The course covers the application of different spectroscopic methods in the structure elucidation of different classes of natural compounds mainly obtained from plant sources. The following subjects will be covered:

The application of different electromagnetic radiations in the identification of natural products. The common function groups in natural products identification by Infra-Red will be demonstrated.

Application of Ultraviolet in the identification of flavonoids using various shift reagents will be discussed.

The students also will study the importance of low- and High-resolution Mass spectroscopy in natural products identification.

The role of different Nuclear Magnetic Resonance Spectroscopic methods in natural products identification will be provided including 1D and 2D NMR experiments.

The role of X-Ray and Optical Rotation in differentiating between the natural isomers that are very important in medical application will be emphasized.

Practical training and problem solving will be provided for the student to be able to use the data for natural compounds identification.

## **Herbal Drugs Licensing and Regulations**

Course Code: PHG 624

Credit hours: 1+0

Level/year at which this course is offered:

2<sup>nd</sup> Level: 1<sup>st</sup> Year

The aim of this course is to acquire necessary information about Herbal Drug Licensing Regulations in Saudi Arabia and worldwide. The course includes legal definitions of the terms: herbal medicines, phytopharmaceutical and natural products, Standardization and Quality control. The course will also cover required documents and steps necessary for licensing of Herbal drugs and food supplements in relation to ESCOP (European Scientific Cooperative on Phytotherapy) and WHO (World Health Organization) monographs and regulations. Updated Royal orders of laws and regulations published in the official newspaper.

# **Biological Evaluation of Natural Products**

Course Code: PHG 631

Credit hours: 1+1

Level/year at which this course is offered:

3<sup>nd</sup> Level; 2<sup>nd</sup> vear

The aim of this course is to acquire necessary information about Herbal Drug Licensing Regulations in Saudi Arabia and worldwide. The course includes legal definitions of the terms: herbal medicines, phytopharmaceutical and natural products, Standardization and Quality control. The course will also cover required documents and steps necessary for licensing of Herbal drugs and food supplements in relation to ESCOP (European Scientific Cooperative on Phytotherapy) and WHO (World Health Organization) monographs and regulations. Updated Royal orders of laws and regulations published in the official newspaper.

Seminar in Phytotherapy				
Course Code:	PHG 632			
Credit hours:	1+0			

Level/year at which this course is offered: 3<sup>nd</sup> Level; 2<sup>nd</sup> year

Phytotherapy seminar is a round-table discussion on current topics of interest pertaining to phytotherapy and phytopharmaceuticals assessment. During this course, all registered students will give a one-hour presentation on an assigned topic and he must satisfactorily address any questions from the audience. Furthermore, all participating students should take part in a weekly journal club covering recent articles in the field of natural products.

Toxicity and Safety of Herbal Medicine				
Course Code: PHG 633				
Credit hours: 1+0				
Level/year at which this course is offered: 3 <sup>nd</sup> Level; 2 <sup>nd</sup> year				

The purpose of this course is to provide a background for addressing questions about the safety and toxicity of herbal products and to enhance communication skills of students in conveying reliable information to consumers and other health-care professionals. The course covers the toxicity of herbal products, influencing factors, toxic constituents, adverse effects and contraindications of most commonly used products, case studies, and protective measures.

## **Elective courses**

Microbial Biotransformation and Tissue Culture				
Course Code: PHG 634				
Credit hours:	2+0			
Level/year at which this course	is offered:	3 <sup>nd</sup> Level; 2 <sup>nd</sup> year		

The course will provide participants with an overview of the different types of biotransformation (that deals specific modification of a definite compound to a distinct product with structural similarity) using natural and recombinant microorganisms, enzymes, whole cells. Types of chemical reactions carried out by microorganisms include oxidation, reduction, hydrolysis; decarboxylation etc. will be covered as Key areas in this course. By the end of the course participants will understand the importance of microbial transformation in improving efficacy and safety of active compounds. This course also covers the production and modification of biologically active important compounds using in vitro biological methods such as microorganism, plant and mammalian cell and tissue culture instead of chemical and synthetic techniques.

## **Aromatherapy**

Course Code:	PHG 635	
Credit hours:	2+0	
Level/year at which this course is offered:		3 <sup>nd</sup> Level: 2 <sup>nd</sup> year

The aim of this elective course is to give an overview of aromatherapy as a complementary and alternative therapy, which uses essential oils to promote both physical and psychological health. It covers the historical uses of essential oils and aromatherapy for healing, describes the methods of essential oil extraction and application, discusses the chemistry of essential oils and the essential components of some of the most popular essential aromatic healing oils, the clinical effects of essential oils using a body systems approach, the research on using aromatherapy for particular conditions, and the contraindications to using aromatherapy. It also involves quality control, storage and preservation of essential oils.

Phytocosmecuticals				
Course Code: PHG 636				
Credit hours: 2+0				
Level/vear at which this course is offered:		3 <sup>nd</sup> Level: 2 <sup>nd</sup> vear		

The aim of the course is to enable the students to provide pharmaceutical services about phytocosmeceuticals after acquiring sufficient information. Students will have enough knowledge about What is Phytocosmeceuticals? What are the plants used in cosmetics? Methods of preparation and formulation of natural products used in Phytocosmetology. Various products used in Phytocosmeceuticals such as skin care, hair care, body care, sun protection, perfumery, antioxidants, anti-aging and weight loss will be addressed. These products also include some phytocosmeceuticals derived from marine organisms. For example, Abyssine is a skin product composed of exopolyssacharides marketed for soothing and reducing irritation of sensitive skin against chemical, mechanical and ultraviolet B (UVB) aggression.

Alternative and Complementary Medicine				
Course Code: PHG 637				
Credit hours: 2+0				
Level/year at which this course is offered:		3 <sup>nd</sup> Level; 2 <sup>nd</sup> year		

The course will provide knowledge about complementary and Alternative treatments and the difference between them. Some examples of Alternative treatment such as homeopathy and acupuncture will be addressed. The different schools of Traditional medicines such as Ayurveda, Chinese Medicine, Korean Medicine, Campo Medicine, Prophet Medicine, Arabic & Islamic Tradition Medicine will be studied from their origin to their recent application in our life today.

Herb-Drug Interactions				
Course Code: PHG 638				
Credit hours: 2+0				
Lovel/year at which this course	2nd Lovel: 2nd year			

Level/year at which this course is offered: 3<sup>nd</sup> Level; 2<sup>nd</sup> year

This course provides theoretical knowledge and skills about herb-drug or dietary supplements-food interactions and their clinical significance as well as the application of that knowledge to minimize the risk and outcome of interactions. The main aim of this course is to offer theoretical information about the interactions between herbal drugs and conventional drugs. The course will provide recent literature and case reports concerning the herb-drug interactions. It covers different types of drug interaction including herbal interactions, pharmacokinetic interactions, pharmacodynamics interactions, alcohol and smoking drug interactions, CNS drug interactions, interactions of cardiovascular acting drugs, interactions of anticoagulants, interactions of antimicrobials, interactions of hormones, and drug-disease interactions. Further, the responsibility of the pharmacist for avoiding these interactions will also be discussed in detail.

Forensic Pharmacognosy				
Course Code: PHG 639				
Credit hours: 2+0				
Level/year at which this course	is offered:	3 <sup>nd</sup> Level; 2 <sup>nd</sup> year		

The goal of this course is to give the student knowledge about the toxic plants and their active constituents that have been used for criminal activities, especially assassination, homicide and suicide attempts. The course also provides the student with knowledge regarding natural drug abuse and the analysis of their composition.

#### **Students Assessment Activities**

### **Courses with Practical hours**

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Major Exam	Week 9-10	20 %
2.	Practical	continuous	25%
3.	Quizzes, Homework, presentation, group discussion	continuous	15 %
4.	Final Exam	Week 18	40 %

<sup>\*</sup>Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

### **Theoretical Courses**

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score	
1.	Major Exam	Week 9-10	30 %	
2.	Quizzes, Homework, presentation, group discussion	continuous	20 %	
3.	Final Exam	Week 18	50 %	

# **Appendix**

# تعريفات خاصة بشؤون الدراسة والاختبارات Definitions for study and exam matters

(حسب مواد لائحة الدراسة والاختبارات للمرحلة الجامعية والقواعد التنفيذية المعتمدة من مجلس جامعة الامير سطام بن عبدالعزيز)

(According to the articles of the study and examination regulations for the university stage and the executive rules approved by the Council of Prince Sattam bin Abdulaziz University)

Study system: Study proceeds according to the level system, and the duration of the study level is a semester of no less than (15) weeks, not including registration periods and final exams. Study schedules are ready before the start of study. The student progresses in studying and succeeding in the courses of the academic levels according to the provisions for moving from one level to another.	نظام الدراسة: تسير الدراسة على نظام المستويات وتكون مدة المستوى الدراسي فصلا دراسيا مدته لا تقل عن (15) أسبوعا، ولا تدخل من ضمنها فترات التسجيل والاختبارات النهائية وتكون الجداول الدراسية جاهزة قبل موعد بدء الدراسة. يتدرج الطالب في الدراسة والنجاح في مقررات المستويات الدراسية وفقا لأحكام الانتقال من مستوى إلى آخر.
Academic year: two main semesters and a summer semester if available.	السنة الدراسية: فصلان رئيسان وفصل صيفي إن وجد.
Summer semester: A period of time not exceeding (8) weeks, excluding registration periods and final exams, during which the number of weekly hours allocated to studying each course will be doubled.	الفصل الدراسي الصيفي: مدة زمنية لا تزيد على (8) أسابيع و لا تدخل من ضمنها فترات التسجيل و الاختبارات النهائية، وتضاعف خلالها عدد الساعات الأسبوعية المخصصة لدراسة كل مقرر.
Academic level: It indicates the academic stage, and the number of levels required for graduation is eight levels or more according to the approved study plans.	المستوى الدراسي: هو الدال على المرحلة الدراسية، ويكون عدد المستويات اللازمة للتخرج ثمانية مستويات أو أكثر وفقا للخطط الدراسية المعتمدة.
Course: A study subject that follows a specific level within the approved study plan in each major (program). Each course has a	المقرر الدراسي: مادة دراسية تتبع مستوى محدداً ضمن خطة الدراسة المعتمدة في كل تخصص (برنامج). ويكون لكل مقرر اسم

name, number, symbol, and a detailed ورقم ورمز ووصف مفصل لمفرداته يمّيزه من حيث المحتوى description of its vocabulary that و المستوى عمّا سواه من مقررات دراسية، وملف خاص بحتفظ به distinguishes it in terms of content and level from other courses, and a special file القسم لغرض المتابعة والتقييم والتطوير ويجوز أن يكون لبعض maintained by the department for the purpose of follow-up, evaluation, and المقررات الدراسية متطلب أو متطلبات سابقة أو متزامنة معه. development. Some courses may have a prerequisite or concurrent requirement. Study unit: The weekly theoretical lecture, الوحدة الدراسية: المحاضرة النظرية الأسبوعية التي لا تقل مدتها which is no less than fifty minutes long, or عن خمسين دقيقة، أو الدرس العملي أو الميداني الذي لا تقل مدته the practical or field lesson, which is no less than one hundred minutes long, or the عن مائة دقيقة، أو الدرس السريري الذي لا تقل مدته عن خمسين clinical lesson, which is no less than fifty minutes long. دقيقة Minimum study load: The minimum number الحد الأدنى من العبء الدراسي: أقل عدد من الوحدات الدراسية of study units that a student must register in التي ينبغي على الطالب تسجيلها بما يتناسب مع معدّله التراكمي proportion to his cumulative average, according to what is decided by the و فقاً لما بقرره مجلس الجامعة. University Council. السجل الأكاديمي للطالب: بيان يوضح سير الطالب الدراسي، The student's academic record: A statement that explains the student's academic ويشمل المقررات التي يدرسها في كل فصل دراسي برموزها progress, and includes the courses he takes in each semester, with their symbols and وأرقامها وعدد وحداتها الدراسية المقررة والتقديرات التي حصل numbers, the number of academic units assigned, the grades he obtained, and the عليها ورموز وقيم تلك التقديرات، كما يوضح السجل الأكاديمي symbols and values of those grades. The student's academic record also shows the للطالب المعدل الفصلي والمعدل التراكمي وبيان التقدير العام. كما semester average, cumulative average, and يثبت أيضا في السجل الأكاديمي للطالب المحول جميع المقررات general grade statement. All courses that he previously studied and was exempted from التي سبق له دراستها وأعفى منها، ولا تدخل في احتساب معدله are also recorded in the academic record of the transferred student, and they are not التر اكمي. included in calculating his cumulative average. Academic Warning: The notice given to a الإنذار الأكاديمي: الإشعار الذي يوجه للطالب بسبب انخفاض student due to his cumulative GPA falling معدله التر اكمي عن الحد الأدني المنصوص عليه. below the stipulated minimum. Semester work grade: The grade awarded درجة الأعمال الفصلية: الدرجة الممنوحة للأعمال التي تبين for work that shows the student's تحصيل الطالب خلال فصل دراسي من اختبارات وبحوث achievement during a semester of tests, research, and educational activities related to وأنشطة تعليمية تتصل بالمقرر الدراسي. ويحدد مجلس الكلية بناءً the course. Based on the Department

Council's proposal, the College Council

determines a grade for the semester work على اقتراح مجلس القسم درجة للأعمال الفصلية ما بين (40 %) between (40%) and (60%) of the final grade إلى (60 %) من الدرجة النهائية للمقرر. وتحتسب درجة for the course. The grade for the course's semester work is calculated in one of the الأعمال الفصلية للمقرر بإحدى الطريقتين الأتيتين: following two ways: 1. Oral exams, practical exams, research, or 1. الاختبار ات الشفهية، أو العملية أو البحوث أو أنواع other types of classroom activity, all or some النشاط الصفى الأخرى أو منها جميعاً أو من بعضها of them, and at least one written exam. 2. At least two written tests. واختبار تحريري واحد على الأقل. 2. اختبار بن تحرير بان على الأقل. Final exam: An in-course exam held once at الاختبار النهائي: اختبار في المقرر يعقد مرة واحدة في نهاية the end of the semester. الفصل الدراسي. Final exam grade: The grade that the student درجة الاختبار النهائي: الدرجة التي يحصل عليها الطالب في كل obtains in each course in the final exam of مقرر في الاختبار النهائي للفصل الدراسي. the semester. Absenteeism from the final exam: A student التغيب عن الاختبار النهائي: الطالب الذي يتغيب عن الاختبار who is absent from the final exam will have a النهائي تكون درجته صفراً في ذلك الاختبار، ويحسب تقديره في grade of zero in that exam, and his grade in that course will be calculated on the basis of ذلك المقرر على أساس درجات الأعمال الفصلية التي حصل the grades for the semester work he obtained. If the student is unable to attend عليها. وإذا لم يتمكن الطالب من حضور الاختبار النهائي في أي the final exam in any of the semester من مقررات الفصل لعذر قهري جاز لمجلس الكلية - في حالات courses due to a compelling excuse, the College Council may - in cases of extreme الضرورة القصوي - قبول عذره والسماح بإعطائه اختباراً بديلاً necessity - accept his excuse and allow him to be given an alternative exam within a خلال مدة لا تتجاوز نهاية الفصل الدراسي التالي، ويعطى التقدير period not exceeding the end of the following semester, and the grade he obtains after الذي بحصل عليه بعد أدائه الاختيار البدبل. taking the alternative exam will be given. Final testing procedures: إجراءات الاختبار النهائي: 1- It is not permissible for a student to be 1- لا يجوز اختبار الطالب في أكثر من مقررين في يوم tested in more than two courses in one day, and the University Council may make an واحد، ولمجلس الجامعة الاستثناء من ذلك. exception to this.

- 2- The student is not allowed to take the test after half an hour from its start, and he is not allowed to leave the test before half an hour from its start.
- 3- Cheating in the test, attempting it, or violating the instructions and rules for conducting the test are matters for which the student will be punished according to the student disciplinary regulations issued by the University Council.
- 4- The council of the college that is teaching the course may in cases of necessity approve the re-correction of the answer sheets within a period not exceeding the beginning of the next semester's exams.

- 2- لا يسمح للطالب بدخول الاختبار بعد مضي نصف ساعة من بدايته، كما لا يسمح له بالخروج من الاختبار قبل مضى نصف ساعة من بدايته.
- 3- الغش في الاختبار أو الشروع فيه أو مخالفة التعليمات وقواعد إجراء الاختبار أمور يعاقب عليها الطالب وفق لائحة تأديب الطلاب التي يصدر ها مجلس الجامعة.
- 4- لمجلس الكلية التي تتولى تدريس المقرر في حالات الضرورة الموافقة على إعادة تصحيح أوراق الإجابة خلال فترة لا تتعدى بداية اختبارات الفصل الدراسي التالي.

#### Controls for re-correcting test answer sheets:

- 1- The student may submit a request to recorrect the answer sheets to the department that teaches the course and then submit the request to the College Council, provided that submitting the request does not exceed one month from the end of the final exam period for the semester in which the student wishes to review the answer sheets for one of his courses.
- 2- The student must not have previously submitted a request to re-correct the answer sheets for one of the tests and his request was proven to be invalid.
- 3- The student may not submit a request to re-correct the answer sheets of more than one course per semester.
- 4- A form is prepared that includes the data mentioned in paragraphs (1, 2, and 3) in addition to other data that includes (the student's name, university number, course number, code and name, division number, semester, absence percentage, cumulative average, warnings, name of the course instructor, and date The test, justifications for requesting re-correction, and a pledge from the student that the information he provided is correct.
- 5- In the event that re-correction is approved, the College Council shall form a committee

#### ضوابط إعادة تصحيح أوراق إجابات الاختبارات:

- 1- يجوز أن يتقدم الطالب بطلب إعادة تصحيح أوراق الإجابة إلى القسم الذي يدرس المقرر ثم يرفع الطلب إلى مجلس الكلية على ألا يتجاوز تقديم الطلب شهرا من نهاية فترة الاختبارات النهائية للفصل الذي يرغب الطالب مراجعة أوراق إجابة أحد مقرراته.
- 2- ألا يكون الطالب قد سبق أن تقدم بطلب إعادة تصحيح أوراق إجابة أحد الاختبارات وثبت عدم صحة طلبه.
- 3- لا يجوز أن يتقدم الطالب بطلب إعادة تصحيح أوراق
   إجابة أكثر من مقرر واحد في الفصل الدراسي.
- 4- تعد إستمارة تتضمن البيانات الواردة في الفقرات (1 و2 و 3) بالإضافة إلى بيانات أخرى تشمل (اسم الطالب، ورقم الجامعي، ورقم المقرر ورمزه واسمه، ورقم الشعبة، والفصل الدراسي، ونسبة الغياب، والمعدل التراكمي، والإنذارات، واسم مدرس المقرر، وتاريخ الاختبار، ومبررات طلب إعادة التصحيح، وتعهد من الطالب بصحة المعلومات التي قدمها).

consisting of at least three faculty members to re-correct the answer sheets. The committee shall submit a report thereon to the College Council for consideration, and the Council's opinion shall be considered final.

5- في حالة الموافقة على إعادة التصحيح، يشكل مجلس الكلية لجنة تتكون من ثلاثة أعضاء هيئة تدريس على الأقل لإعادة تصحيح أوراق الإجابة وترفع اللجنة تقريرا بذلك لمجلس الكلية للبث فيه، ويعتبر رأي المجلس نهائيا.

Final mark: The sum of semester work grades plus the final exam grade for each course. The grade is calculated out of one hundred.

الدرجة النهائية: مجموع درجات الأعمال الفصلية مضافا إليها درجة الاختيار النهائي لكل مقرر، وتحسب الدرجة من مائة.

Grade: A description of the percentage or alphabetical code of the final grade obtained by the student in any course.

التقدير: وصف للنسبة المئوية أو الرمز الأبجدي للدرجة النهائية التي حصل عليها الطالب في أي مقرر.

Incomplete grade: A grade assigned temporarily for each course for which the student is unable to complete the requirements on the specified date and is symbolized in the academic record by the letter (L) or (IC) after the approval of the department council that is teaching the course based on the recommendation of the course instructor allowing the student to complete those requirements in The following semester, only the grade that the student obtains after completing the requirements for that course is counted toward the semester or cumulative average. If one semester has passed and the incomplete grade in the student's academic record has not changed due to lack of completion, it is replaced with a failing grade (E) or (F) and it is calculated. Within the semester and cumulative average.

تقدير غير مكتمل: تقدير يرصد مؤقتا لكل مقرر يتعذر على الطالب استكمال متطلباته في الموعد المحدد ويرمز له في السجل الأكاديمي بالحرف (ل) أو (IC) وذلك بعد موافقة مجلس القسم الذي يتولى تدريس المقرر بناءً على توصية مدرس المقرر السماح للطالب باستكمال تلك المتطلبات في الفصل الدراسي التالي ولا يحسب ضمن المعدل الفصلي أو التراكمي إلا التقدير الذي يحصل عليه الطالب بعد استكمال متطلبات ذلك المقرر، وإذا مضى فصل دراسي واحد ولم يتغير تقدير غير مكتمل في السجل الأكاديمي للطالب لعدم استكماله فيستبدل به تقدير راسب (هـ) أو (F) ويحسب ضمن المعدل الفصلي والتراكمي.

Continuing grade: A grade allocated temporarily for each course whose nature requires studying in more than one semester to complete it and is symbolized in the academic record by the letter (M) or (IP). After the student finishes studying the course, he is awarded the grade he obtained. If he does not complete the course on time,

تقدير مستمر: تقدير يرصد مؤقتا لكل مقرر تقتضي طبيعته إلى الدراسة في أكثر من فصل لاستكماله ويرمز له في السجل الأكاديمي بالحرف (م) أو (IP). وبعد إنتهاء الطالب من دراسة المقرر يمنح التقدير الذي حصل عليه، وإذا لم يستكمل المقرر في

the department council that is teaching the course may agree to record an incomplete grade (L) or (IC) in the student's academic record.

الوقت المحدد فيجوز لمجلس القسم الذي يتولى تدريس المقرر الموافقة على رصد تقدير غير مكتمل (ل) أو (IC) في السجل الأكاديمي للطالب.

Rules for moving from one level of study to another:

- 1- The student is transferred from his academic level to the next level if he successfully passes all the courses of that level.
- 2- The minimum academic load for a student is 12 academic units.
- 3- If the student fails one or more courses, he is required to study the courses according to the following controls:
- If a student fails a total of the minimum prescribed academic units or more than one level's courses, he is required to retake only the failed courses at that level.
- If the student fails a total of less than the minimum number of academic units, he is required to study the failed courses with additional courses from the levels below his level according to the following:
- a. Registration in courses is within the controls of the study plan and schedules.
- B. The student's academic load is linked to his cumulative GPA, provided that it is not less than the minimum.
- T. There should be no conflict in the student's schedule.
- Th. When a student is unable to register for the academic load from the courses of the next level (due to a conflict or failure to complete the previous requirement or because he has finished all the courses of that level), he completes his academic load from the courses of the next permitted levels. If it is not possible to complete his academic units after that, he will be satisfied with the academic units that are available to him, even if their number is less than the minimum.

### قواعد الانتقال من مستوى دراسى إلى آخر:

- 1- ينقل الطالب من مستواه الدراسي إلى المستوى الذي يليه
   إذا اجتاز بنجاح جميع مقررات ذلك المستوى.
  - 2- الحد الأدنى للعبء الدراسي للطالب 12 وحدة دراسية.
- 3- إذا رسب الطالب في مقرر أو أكثر يلزم بدراسة المقررات بالضو ابط الآتية:
- إذا رسب الطالب فيما مجموعه الحد الأدنى من الوحدات الدراسية المقررة أو أكثر من مقررات مستوى واحد يلزم بإعادة دراسة مقررات الرسوب فقط في ذلك المستوى.
- إذا رسب الطالب فيما مجموعه أقل من الحد الأدنى من الوحدات الدراسية، يلزم بدراسة مقررات الرسوب مع مقررات إضافية من المستويات التي تلي مستواه وفقا لما يأتي:
- أ. يكون التسجيل في المقررات ضمن ضوابط الخطة الدراسية والجداول.
- ب. يربط العبء الدراسي للطالب بمعدله التراكمي على ألا يقل عن الحد الأدنى.
  - ت. لا يكون هناك تعارض في جدول الطالب.
- ث. عند تعذر تسجيل الطالب للعبء الدراسي من مقررات المستوى الذي يليه (بسبب التعارض أو عدم إنهاء المتطلب السابق أو لإنهائه جميع مقررات ذلك المستوى) يكمل عبؤه الدراسي من مقررات المستويات التالية المسموح بها.

C. The number of levels for which courses are allowed to be registered is limited to three successive levels of study.	وإذا تعذر إكمال وحداته الدراسية بعد ذلك يكتفي بالوحدات الدراسية التي توافرت له حتى لو كان عددها دون الحد الأدنى.  ح. يحدد عدد المستويات المسموح بتسجيل مقررات منها بثلاثة مستويات دراسية متتالية.

# التقديرات ورموزها ونسبها المئوية وأوزانها:

Grades, their symbols, percentages, and weights

المدلول بالإنجليزية	المدلول بالعربية	وزن التقدير من (5) (النقاط)		النسبة المنوية	الرمز بالإنجليزية	الرمز بالعربية
English Grade	Arabic Grade	Points out of 5		Percentage	English Symbol	Arabic Symbol
Exceptional	ممتاز مرتفع	5.00	5.00	100 - 95	A+	+1
Excellent	ممتاز	4.75	4.75	90 أقل من 95	A	j
Superior	جيد جدا مرتقع	4.50	4.50	85 أقل من 90	B+	+-
Very good	جيد جدا	4.00	4.00	80 أقل من 85	В	÷
Above average	جيد مرتفع	3.50	3.50	75 أقل من 80	C+	<b>5</b> +
Good	ختخ	3.00	3.00	75 أقل من 75	С	<b>E</b>
High pass	مقبول مرتفع	2.50	2.50	65 أقل من 70	D+	+7
Pass	مقبول	2.00	2.00	60 أقل من 65	D	د
Fail	راسب	1.00	1.00	أقل من 60	F	ھ
In-Progress	مستمر	-	-		IP	م
In-Complete	غير مكتمل	-	-		IC	ل
Denile	محروم	1.00	1.00		DN	۲
Nograde-Pass	ناجح دون درجة	-	-	60 وأكثر	NP	ند
Nograde-Fail	راسب دون درجة	-	-	أقل من 60	NF	عد
Withdrawn	منسحب بعذر	-	-		W	ع

Semester average: the result of dividing the total points obtained by the student in all the courses he studied in any semester by the total units assigned for those courses. Points are calculated by multiplying the assigned unit by the weight of the grade obtained by the student in each course he studied.

Cumulative GPA: The result of dividing the

المعدل الفصلي: حاصل قسمة مجموع النقاط التي حصل عليها الطالب في جميع المقررات التي درسها في أي فصل دراسي على مجموع الوحدات المقررة لتلك المقررات. وتحسب النقاط بضرب الوحدة المقررة في وزن التقدير الذي حصل عليه الطالب في كل مقرر درسه.

Cumulative GPA: The result of dividing the total points obtained by the student in all the courses he has studied since joining the university by the total units assigned for those courses.

المعدل التراكمي: حاصل قسمة مجموع النقاط التي حصل عليها الطالب في جميع المقررات التي درسها منذ التحاقه بالجامعة على مجموع الوحدات المقررة لتلك المقررات

## مثال لحساب المعدل الفصلي والمعدل التراكمي:

## الفصل الدراسي الأول:

عدد النقاط	وزن التقدير	رمز التقدير	النسبة المئوية	عدد الوحدات	المقرر
9.00	4.50	+4	85	2	103 سلم
9.00	3.00	<u> </u>	70	3	334 كيم
14.25	4.75	ĺ	92	3	235 ريض
16.00	4.00	ب	80	4	312 فيز
48.25				12	المجموع
	4.02				

## الفصل الدراسي الثاني:

عدد النقاط	وزن التقدير	رمز التقدير	النسبة المئوية	عدد الوحدات	المقرر
10	5.00	+1	96	2	104 سلم
12	4.00	ب	83	3	327 كيم
12	3.00	<b>E</b>	71	4	314 ريض
12	4.00	ب	81	3	326 فيز
46				12	المجموع

مجموع النقاط (48.25) مجموع النقاط (48.25) 
$$=$$
 3.93  $=$  مجموع الوحدات (12 + 12)

# الفصل التاسع من لائحة الدراسات العليا: آلية التقييم.

## المادة الرابعة والثلاثون:

يتم إجراء الاختبارات في مقررات الدراسات العليا، ورصد التقديرات، وفقاً للائحة الدراسة والاختبارات للمرحلة الجامعية، فيما عدا الآتى:

- 1- لا يُعد الطالب ناجحاً في المقرر إلا إذا حصل فيه على تقدير (جيد مرتفع) على الأقل.
- 2- اجتياز الطالب المقرر التكميلي في المرة الأولى بتقدير لا يقل عن (جيد مرتفع)، ولا يقل معدله التراكمي في مجمل المقررات التكميلية عن (جيد جداً).
- 3- فيما يتعلق بالاختبارات البديلة والمقررات التي تتطلب دراستها أكثر من فصل دراسي يتخذ مجلس الكلية ما يراه حيالها، بناءً على توصية مجلس القسم.

### القواعد التنفيذية للمادة الرابعة والثلاثين

١-٣٤ يُعتمد وزن التقدير من خمس درجات، وتحسب التقديرات التي يحصل عليها الطالب في كل مقرر كما يلي:

التقدير	وزن التقدير من (5)	رمز التقدير	الدرجة المنوية
ممتاز مرتفع	من ٤،٧٥ إلى ٥	+ 1	من 95 إلى 100
ممتاز	من ٥،٥ إلى أقل من ٤،٧٥	Í	من 90 إلى أقل من 95
جيد جداً مرتفع	من ٤ إلى أقل من ٥،٤	+ 4	من 85 إلى أقل من 90
جيد جداً	من ٣،٥ إلى أقل من ٤	ب	من80 إلى أقل من 85
جيد مرتقع	من ۳ إلى أقل من ۳،۰	+ =	من 75 إلى أقل من 80
راسب	أقل من ٣	هـ	أقل من ٧٥

7.7 يحرم الطالب من دخول الاختبار النهائي في المقرر الذي تزيد نسبة غيابه فيه عن 7.8 من المقرر، ويعد راسبا في المقرر، ويرصد له تقدير محروم (ح) أو (DN)، ولمجلس الكلية -أو لجنة البرنامج المشترك المعنية- رفع الحرمان والسماح للطالب بدخول الاختبار شريطة أن يقدم عذراً يقبله المجلس.