

## Module(Course Syllabus)Catalogue 2022-2023

College/ Institute	Khabat Technical Institute	
Department	Plant Protection	
Module Name	General Botany	
Module Code	GEB104	
Semester	1	
Credits	7	
Module type	Prerequisite <input type="checkbox"/>	Core <input checked="" type="checkbox"/> Assist. <input type="checkbox"/>
Weekly hours	5	
Weekly hours (Theory)	( 2)hr Class	( 60 )hr Workload
Weekly hours (Practical)	( 3)hr Class	( 90 )hr Workload
Lecturer (Theory)	Nazar Mohammed Samein	
E-Mail& Mobile NO.	<a href="mailto:Nazar.samen@epu.edu.iq">Nazar.samen@epu.edu.iq</a> - 07508518361	
Lecturer (Practical)	Zhian Hmed	
E-Mail & Mobile NO.	07504560299	

# Course Book

<p style="text-align: center;"><b>Course Description</b></p>	<p>Students benefit from General Botany to identify the parts of the plant in general and on the plant cell and its parts and to know the types of plant tissues and types of cellular divisions also roots and their movements, stems and their types, parts of the plant leaf r and their types, flowers, fruits and seeds and identify the effects of the environment on the structure and the appearance of the plant.</p> <p>Students benefit from plant physiology in identifying the biochemical reactions occurring within the cell of the plant.</p> <p>In addition , to know the physiological interactions and their effects on plant life</p>
<p style="text-align: center;"><b>Course objectives</b></p>	<p>The plant and its parts, and the knowledge of the types of plant tissues and types of cellular divisions and roots and their movements and stems and types and parts of the paper and types, flowers, fruits and seeds and identify the effects of the environment on the structure and the appearance of the plant. Students become able to distinguish the parts of the plant and the types of each part and its variations.</p> <p>Identify the chemical reactions that occur in plants to determine their effects on plants.</p> <p>At the end of the course, students will become understand the mechanism of physiological interactions that affect plant life.</p>
<p style="text-align: center;"><b>Student's obligation</b></p>	<p>Attendance of students in classes is necessary, as non-attendance has negative effect on student's perception.</p> <p>Writing reports particularly in practical lessons as well as to scientific excursion.</p>
<p style="text-align: center;"><b>Required Learning Materials</b></p>	<p>Use white board Data show Power point</p>

	<p><b>Internet</b>  <b>Use parts of plant</b>  <b>The lectures are presented in classes to students in different ways including data show, PowerPoint, manual papers and white boards. However, they are presented to student via lecturers' portal in university's website.</b></p>
<p><b>Assessment scheme</b></p>	<p><b>16% Mid Term (Theory and practical)</b>  <b>4% Quiz</b>  <b>40% Assignment (report, paper, homework, seminar..)</b>  <b>25% final practical</b>  <b>15% final theory</b></p>
<p><b>Specific learning outcome:</b></p>	<p><b>There are different methods to evaluate students in lessons; involving:</b></p> <ol style="list-style-type: none"> <li><b>1- Quiz the students or debate the subject to be more students included in the discussions.</b></li> <li><b>2- Writing reports for most subjects especially student projects to be ready for seminars.</b></li> </ol> <p><b>Testing students is required seasonally as well as final exam of year.</b></p>

**Course References:**

1. محمود الباز واخرون(2008)النباتالعام
2. محمد عبد الوهاب و وفاء عامر(2005)اساسياتعلمالنباتالعام,الناغى مكتبة الدار العربية للكتاب
3. العريض والعسكر وعياش( 2001 )اساسياتعلمالنباتالعام
4. عبد العزيز السعيد ويسرى السيد صالح واسامة .البيومي ,اساسياتعلمالنبات(2000)سيد
5. Schmidt, Diane., Davis, Elisabeth B. (Eds.) (2006) Guide to reference and information sources in plant biology.
6. Taiz&Zeiger (2006) Plant Physiology. 4th Edition. Sinauer.
7. Taiz L &Zeiger E (2002) Plant Physiology. 3 rd Edition .
8. Curtis, Lersten and Nowak(2002) PLANTS AND THEIR STRUCTURE

Course topics (Theory)	Week	Learning Outcome
1. علم النبات وعلاقتة بالعلوم الاخرى-اهمية النبات	1	
2. اشكال النباتات وانواعها-تركيب الجسم النباتي	2	
3. انواع الخلية-الجدار الخلوي-البروتوبلاست-الخلية النباتية	3	
4. الانسجة النباتية	4	
5. الانقسامات الخلوية	5	
6. انواع الجذور تشريحها والنمو الثانوي فيها-الجذر	6	
7. تشريح الساق-البراعم وانواعها -انواعه-الساق	7	
8. تشريحها -انواعها-الاوراق	8	
9. الازهار والثمار والبذور	9	
10. البيئة وتأثيرها على التركيب المظهري والتشريحي للنبات.	10	
11. النتح -علاقة النبات بالماء.	11	
12. عملية التركيب الضوئي.	12	

Practical Topics	Week	Learning Outcome
1. المجهر المركب و تحضير الشرائح	1	
2. الخلية النباتية وانواع الخلايا النباتية	2	
3. الانسجة النباتية	3	
4. الجذر وانواعه	4	
5. الساق والبراعم	5	
6. الورقة وانواعها	6	
7. الزهرة	7	
8. النورة	8	
9. الثمرة	9	
10. البذرة و انواعها	10	
11. مراحل انقسام خلايا	11	
12. تأثير البيئة على التركيب التشريحي للنباتات الصحراوية	12	

### Questions Example Design

**Q1/ Define the following phrases?**

- 1- Botany
- 2- Morphology
- 3- Pits
- 4- Genetic
- 5- Nucleuse

**Q2/ Write the function of Plant Cell Wall and its component?**

**Q3/ What's the structure of primary of cell wall?**

**Extra notes:**

**External Evaluator**