



King Saud University  
College of Science  
Vice Dean Academic Affairs  
Study Plans



# Botany Study Plan



## Botany and Microbiology Department

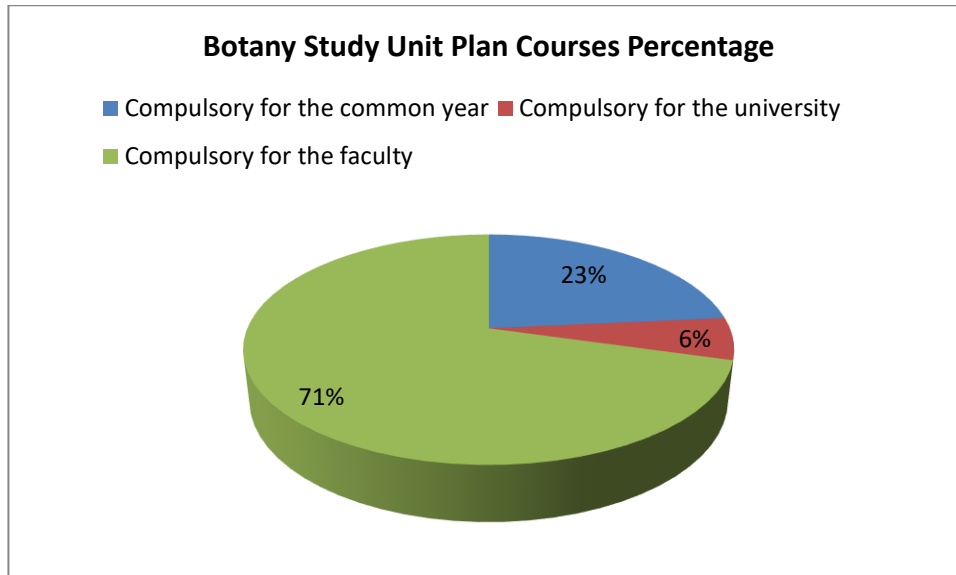
2024 – 1446H



## Botany Study Unit Plan Courses Percentage

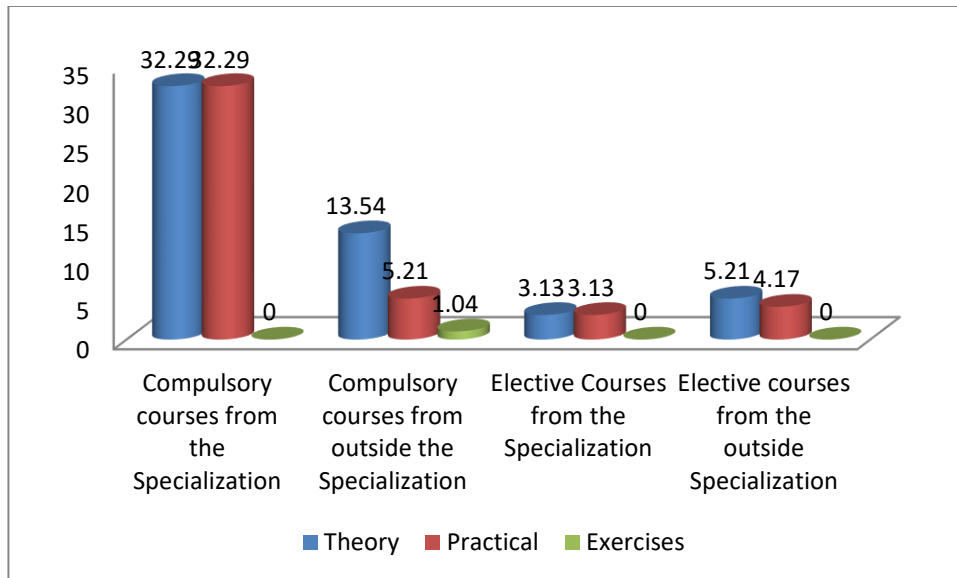
Required Study Courses	Number of Courses	Total Study Unit	Percentage from 137 Unit
Compulsory for the common year	10	32	23.5
Compulsory for the university	4	8	5.9
Compulsory for the faculty	39	96	70.6
<b>Total</b>		<b>136</b>	<b>%100</b>

## Botany Study Unit Plan Courses Percentage



## Botany Study Unit Plan Courses Percentage

	Number of Courses	Total Study Units	Theory	Percentage of 96 Units	Practical	Percentage of 96 Units	Exercises	Percentage of 96 Units
Compulsory the courses from Specialization	25	62	31	32.29	31	32.29	0	0.00
Compulsory courses from outside the Specialization	7	19	13	13.54	5	5.21	1	1.04
Courses Elective from the Specialization	3	6	3	3.13	3	3.13	0	0.00
courses Elective from the outside Specialization	4	9	5	5.21	4	4.17	0	0.00
<b>Total</b>	<b>39</b>	<b>96</b>	<b>52</b>	<b>54.17</b>	<b>43</b>	<b>44.79</b>	<b>1</b>	<b>1.04</b>





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Compulsory for the University			
No	Number and Code		Study Unit
1	4 Unit	University Compulsory	8
<b>Total</b>		<b>4 Courses</b>	<b>8</b>

Compulsory courses from the Specialization			
No	Number and Code	Name Course	Study Unit
1	BOT 102	Botany	3
2	BOT 212	Plant Anatomy	3
3	BOT 213	Plant Micro technique	2
4	BOT 222	Principals Of Flowering Plants Taxonomy	3
5	BOT 241	Plant Ecological Factors	3
6	BOT 253	Genetics	3
7	BOT 251	Cytology & Cytogenetic	3
8	BOT 271	Plant Physiology	3
9	BOT 341	Ecosystem	1
10	BOT 342	Phytosociology	2
11	BOT 345	Flora of Saudi Arabia	2
12	BOT 346	Pollution and Environmental Protection	2
13	BOT 349	Ecophysiology	2
14	BOT 359	Population Genetics	2
15	BOT 373	Plant Growth and Its Regulators	2
16	BOT 384	Phycology	3
17	BOT 398	Research Project 1	2
18	BOT 443	Ecological Methods	2
19	BOT 445	Desert Ecology and its Resources	2
20	BOT 447	Economic Botany	2
21	BOT 458	Plant Molecular Biology	3
22	BOT 472	Plant Tissue Culture	2
23	BOT 473	Plant Chemistry	2
24	BOT 491	Field Plant Monitoring and Environmental Assessment	5
25	BOT 498	Research Project 2	3
<b>Total</b>		<b>25 Courses</b>	<b>62</b>

Compulsory courses from outside the Specialization			
No	Number and Code	Course Name	Study Unit
1	BCH 101	General Biochemistry	4
2	ZOOL 103	Principles in Zoology	3
3	MBIO 140	Microbiology	3
4	STAT 145	Biostatistics	2
5	CHEM 253	Fundamentals of Analytical Chemistry	2
6	GEO 303	Principles of Remote Sensing	3
7	MBIO 345	Interaction between Microorganisms	2
<b>Total</b>		<b>7 Courses</b>	<b>19</b>

Elective courses from the Specialization			
No	Number and Code	Course Name	Study Unit
1	3 Units		6
<b>Total</b>		<b>3 Courses</b>	<b>6</b>

Elective courses from outside Specialization			
No	Number and Code	Course Name	Study Unit
1	4 Courses		9
<b>Total</b>		<b>4 Courses</b>	<b>9</b>

Courses	Botany Program	
	Number of Courses	Number of Unit
Common Year	10	32
Compulsory from University	4	8
Compulsory from Specialization	25	62
Compulsory from outside specialization	7	19
Elective from Specialization	3	6
Elective from outside specialization	4	9
<b>Total</b>	<b>53</b>	<b>136</b>
Service courses to Other Specialization and colleges	6	13



# Botany Study Plan

### 1<sup>st</sup> Semester COMMON FIRST YEAR

Course Code	Course Title	Pre-Req.	Co-Req.	Credits (Lect.- Exre.-Pract.)
ENG 104or105-106	English Language	-	-	6 (6+0+0)
MATH 101	Differential Calculus	-	-	3 (2+2+0)
ENT 101	Entrepreneurship	-	-	1 (1+0+0)
CHEM 101	General Chemistry	-	-	4 (3+0+2)
ARAB 100	Writing Skills	-	-	2 (2+0+0)
<b>Total of Credit Hours</b>				<b>16</b>

### 2<sup>nd</sup> Semester COMMON FIRST YEAR

Course Code	Course Title	Pre-Req.	Co-Req.	Credits (Lect.- Exre.-Pract.)
ENG 111-112-113	English Language	ENG 100	-	6 (6+0+0)
CI 101	University Skills	-	-	3 (3+0+0)
CT 101	Computer Skills	-	-	3 (0+0+6)
STAT 101	Introduction to Statistics	-	-	3 (1+4+0)
CHS 101	Fitness and Healthy Culture	-	-	1 (1+0+0)
<b>Total of Credit Hours</b>				<b>16</b>

### 3<sup>rd</sup> Semester

Course Code	Course Title	Pre-Req.	Co-Req.	Credits (Lect. Exre. – Pract.)
BCH 101	General biochemistry	-	-	4 (3+0+2)
BOT 102	Botany	-	-	3 (2+0+2)
ZOOL 103	Principals of Zoology	-	-	3 (2+0+2)
MBIO 140	General Microbiology	-	-	3 (2+0+2)
STAT 145	Biostatistics	-	-	2 (1+2+0)
Elective from University requirement		-	-	2 (2+0+0)
<b>Total of Credit Hours</b>				<b>17</b>

### 4<sup>th</sup> Semester

Course Code	Course Title	Pre-Req.	Co-Req.	Credits (Lect. Exre. – Pract.)
BOT 251	Cytology &Cytogenetics	BOT 102	-	3(2+0+2)
Mi 201	Microtechnique	BOT 102	-	2 (1+0+2)
BOT 222	Principles of Flowering Plants Taxonomy	BOT 102	-	3 (2+0+2)
BOT 241	Plant Ecological Factors	BOT 102	-	3 (2+0+2)
BOT 271	Plant physiology	BOT 102	-	3 (2+0+2)
Elective from University requirement		-	-	2(2+0+0)
<b>Total of Credit Hours</b>				<b>16</b>

### 5<sup>th</sup> Semester

Course Code	Course Title	Pre-Req.	Co-Req.	Credits (Lect. Exre. – Pract.)
BOT 212	Plant Anatomy	BOT 102	-	3 (2+0+2)
BOT 253	Genetics	BOT 251	-	3(2+0+2)
CHEM 253	Fundamentals of Analytical Chemistry	-	-	2(1+0+2)
BOT 341	Ecosystem	BOT 241	-	1 (1+0+0)
BOT 345	Flora of Saudi Arabia	BOT 241	-	2 (1+0+2)
BOT 349	Ecophysiology	BOT 241 BOT 271	-	2 (1+0+2)
Elective course from Outside Spec.		Variable	-	2
Elective course from Outside Spec.		Variable	-	2
<b>Total of Credit Hours</b>				<b>17</b>

### 6<sup>th</sup> Semester

Course Code	Course Title	Pre-Req.	Co-Req.	Credits (Lect. Exre. – Pract.)
BOT 346	Pollution and Environmental protection	-	-	2 (1+0+2)
BOT 359	Population Genetics	BOT 253	-	2 (1+0+2)
BOT 373	Plant Growth and Its Regulators	BOT 271	-	2 (1+0+2)
BOT 342	Phytosociology	BOT 345	-	2 (1+0+2)
BOT 398	Research Project I	65 Units	-	2 (0+0+4)
Elective from the Specialization		-	-	2
Elective course from Outside Spec		Variable	-	2
Elective course from Outside Spec		Variable	-	3
<b>Total of Credit Hours</b>				<b>17</b>

### Summer semester

Course code	Course title	Pre-Req.	Co-Req.	Credits (Lect. - Exer. – Pract.)
BOT 491	Field Plant Monitoring and Environmental Assessment	75 Unit	-	5 (0+0+10)
<b>Total Units</b>				<b>5</b>



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(Lect – Exer. – Pract.) = (Lecture – Exercise – Practical)

7 <sup>th</sup> Semester				
Course Code	Course Title	Pre-Req.	Co-Req.	Credits (Lect. Exre. –Pract.)
GEO 303	Principles of Remote Sensing	-	-	3 (2+2+0)
MBIO 345	Interaction between Microorganisms	MBIO 140	-	2(1+0+2)
BOT 384	Phycology	BOT 102	-	3 (2+0+2)
BOT 443	Ecological Methods	BOT 241	-	2 (0+0+4)
BOT 498	Research Project 2	90 Units	-	3 (0+0+6)
<b>Elective from Specialization</b>		Variable	-	2
<b>Compulsory from University</b>		-	-	2
<b>Total of Credit Hours</b>				<b>17</b>

8 <sup>th</sup> Semester				
Course Code	Course Title	Pre-Req.	Co-Req.	Credits (Lect. Exre. – Pract.)
BOT 458	Plant Molecular Biology	-	-	3 (2+0+2)
BOT 445	Desert Ecology and its Resources	BOT 345	-	2 (2+0+0)
BOT 447	Economic Botany	BOT 345	-	2 (2+0+0)
BOT 472	Plant Tissue Culture	BOT 251+ BOT 271	-	2 (1+0+2)
BOT 473	Plant Chemistry	BOT 271	-	2 (1+0+2)
<b>Elective from Specialization</b>		Variable	-	2
<b>Compulsory from University</b>		-	-	2
<b>Total of Credit Hours</b>				<b>15</b>



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**List of the Compulsory of the University Requirements**  
**(Student elects 8 credit hours)**

Course Code	Course Title	Pre-requisite	Credits (Lect. – Exer. - Pract.)
IC 100	Studies in the Biography of the Prophet	-	2 (2+0+0)
IC 101	Introduction of Islamic Culture	-	2 (2+0+0)
IC 102	Islam and Building up the Society	-	2 (2+0+0)
IC 103	Economic System in Islam	-	2 (2+0+0)
IC 104	Political system in Islam	-	2 (2+0+0)
IC 105	Human Rights	-	2 (2+0+0)
IC 106	Islamic Jurisprudence	-	2 (2+0+0)
IC 107	Ethics of Occupation	-	2 (2+0+0)
IC 108	Contemporary Issues	-	2 (2+0+0)
IC 109	Woman and Her Developmental Role	-	2 (2+0+0)

**List of the Elective Courses**

<b><i>Elective courses from the Specialization (Student elects 6 credit hours)</i></b>			
Course Code	Course title	Pre-Request	Credits (Lect. – Exer. -)
BOT 263	Archegoniates	BOT 102	2 (1+0+2)
BOT 312	Plant Morphogenesis		2 (2+0+0)
BOT 322	Experimental Taxonomy		2 (1+0+2)
BOT 347	Plant Geography		2 (2+0+0)
BOT 379	Metabolism & Transport in Plants		2 (1+0+2)
BOT 380	Plant Water & soil Relations		2 (1+0+2)
BOT 446	Natural Resources and Management		2 (2+0+0)
BOT 448	Arid regions development		2 (1+0+2)
BOT 456	Gene		2 (1+0+2)
BOT 457	Genetic Engineering		2 (1+0+2)
BOT 459	Ecological		2 (1+0+2)
BOT 476	Date Palm		2 (1+0+2)
BOT 487	Phytoplanktons		2 (1+0+2)



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***Elective courses from OUTSIDE the Specialization (Student elects 9 credit hours)***

Course code	Course title	Pre-Request	Credits (Lect. – Exer. - Pract.)
ZOOL 305	Parasitology	ZOOL 103	2 (1+0+2)
ZOOL 373	General Entomology	ZOOL 103	2 (1+0+2)
ZOOL 374	Ichthyology	ZOOL 103	2 (1+0+2)
<b>MBIO 240</b>	Laboratory Skills	MIBIO 140	2 (0+0+4)
<b>MBIO 250</b>	General Virology	MIBIO 140	3 (2+0+2)
<b>MBIO 260</b>	General Bacteriology	MIBIO 140	3 (2+0+2)
<b>MBIO 270</b>	General Mycology	MIBIO 140	3 (2+0+2)
<b>MBIO 344</b>	W. & S. Microbiology	MIBIO 140	2 (1+0+2)

**List of service courses to Other Specialization and colleges.**

Course Code	Course Title	Credits (Lect. – Exer.- Pract.)	Department / College of
<b>BOT 102</b>	Botany	3 (2+0+2)	GEO –MBIO – ZOOL – CHEM - AGRI
<b>BOT 213</b>	Plant Microtechnique	2 (1+0+2)	GEO –MBIO – ZOOL – CHEM - AGRI
<b>BOT 345</b>	Flora of Saudi Arabia	2 (1+0+2)	GEO –MBIO – ZOOL – CHEM - AGRI
<b>BOT 447</b>	Economic Botany	2 (2+0+0)	GEO –MBIO – ZOOL – CHEM - AGRI
<b>BOT 472</b>	Plant Tissue Culture	2 (1+0+2)	GEO –MBIO – ZOOL – CHEM - AGRI
<b>BOT 476</b>	Date Palm Biology	2 (1+0+2)	GEO –MBIO – ZOOL – CHEM - AGRI