

PYAY UNIVERSITY
DEPARTMENT OF BOTANY
CURRICULUM FOR BSc DEGREE
BOTANY SPECIALIZATION
(2019-2020)

First Year BSc

Semester I

Module No.	Name of Module	Credit Points	Hours per Week	
			Lecture	Practical/ Tutorial
မ ၁၀၀၁	မြန်မာစာ	3	2	2
Eng - 1001	English	3	2	2
Bot - 1101	Plant Biology	4	3	2
Elective 1	*	3	2	2
Elective 2	*	3	2	2
AM-1001	Aspects of Myanmar	3	2	2
Total		19	13	12

Total Credit – 19 points; Total hours – 25

Foundation Courses

မ ၁၀၀၁ မြန်မာစာ
Eng 1001 English

Core Course

Bot 1101 Plant Biology

Elective Courses

Zool 1001 Organization and Variety of Life
Chem 1001 General Chemistry I
Geol 1001 General Geology I
Geog 1001 Elements of Physical Geography
AM 1001 Aspects of Myanmar

* A Student can choose any two elective courses offered from the Department of Zoology, Chemistry, Geology and Geography to fulfill a total of 19 credits points.

Elective Course for Other Specialization

Bot 1001(for Zool) Varieties of Plants and their Relatives

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First Year BSc

Semester II

Module No.	Name of Module	Credit Points	Hours per Week	
			Lecture	Practical/ Tutorial
မ ၁၀၀၂	မြန်မာစာ	3	2	2
Eng - 1002	English	3	2	2
Bot - 1102	Basic Concepts of Applied Botany	4	3	2
Elective 1	*	3	2	2
Elective 2	*	3	2	2
AM-1002	Aspects of Myanmar	3	2	2
Total		19	13	12

Total Credit – 19 points; Total hours – 25

Foundation Courses

မ ၁၀၀၂ မြန်မာစာ
Eng 1002 English

Core Course

Bot 1102 Basic Concepts of Applied Botany

Elective Courses

Zool 1002 Life Processes and Fossils
Chem 1002 General Chemistry II
Geol 1003 General Geology II
Geog 1002 Elements of Climatology
AM 1002 Aspects of Myanmar

* A Student can choose any two elective courses offered from the Department of Zoology, Chemistry, Geology and Geography to fulfill a total of 19 credits points.

Elective Course for Other Specialization

Bot 1002 (for Zool) Importance of Plants
Bio 1002 (for BC) Importance of Plants

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CURRICULUM FOR BSc DEGREE
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Second Year BSc

Semester I

Module No.	Name of Module	Credit Points	Hours per Week	
			Lecture	Practical/ Tutorial
Eng - 2001	English	3	2	2
Bot - 2101	Survey of Plant Kingdom I	4	3	2
Bot - 2102	Angiosperms I	4	3	2
Bot - 2103	Genetics	4	3	2
Bot - 2104	Ecology	3	2	2
Bot - 2105	Introduction to Evolution	3	2	2
Total		21	15	12

Total Credit – 21 points; Total hours – 27

Foundation Course

Eng 2001 English

Core Course

Bot 2101 Survey of Plant Kingdom I

Bot 2102 Angiosperms I

Bot 2103 Genetics

Elective Course

Bot 2104 Ecology

Bot 2105 Introduction to Evolution

Zool 2001 Invertebrate Zoology

Chem 2001 Organic Chemistry I

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Elective Course for Other Specialization

Bot 2001 Plant Taxonomy I

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Second Year BSc

Semester II

Module No.	Name of Module	Credit Points	Hours per Week	
			Lecture	Practical/ Tutorial
Eng – 2002	English	3	2	2
Bot – 2106	Survey of Plant Kingdom II	4	3	2
Bot – 2107	Angiosperms II	4	3	2
Bot – 2108	Cytogenetics	4	3	2
Bot – 2109	Horticulture	3	2	2
Bot – 2110	Plant Pathology	3	2	2
Total		21	15	12

Total Credit – 21 points; Total hours – 27

Foundation Course

Eng 2002 English

Core Course

Bot 2106 Survey of Plant Kingdom II

Bot 2107 Angiosperms II

Bot 2108 Cytogenetics

Elective Course

Bot 2109 Horticulture

Bot 2110 Plant Pathology

Zool 2002 Vertebrate Zoology

Chem 2002 Organic Chemistry II

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Elective Course for Other Specialization

Bot 2002 Plant Taxonomy II

PYAY UNIVERSITY
DEPARTMENT OF BOTANY
CURRICULUM FOR BSc and BSc HONOURS DEGREE
BOTANY SPECIALIZATION
(2019–2020)

Third Year BSc/First Year BSc Honours

Semester I

Module No.	Name of Module	Credit Points	Hours per Week	
			Lecture	Practical/ Tutorial
Eng 3001	English	3	2	2
Bot 3101/3201	Medicinal Plants	4	3	2
Bot 3102/3202	Plant Cytology and Anatomy	4	3	2
Bot 3103/3203	Plant Physiology I	4	3	2
Bot 3104/3204	Environmental Biology	4	3	2
Elective	*	3	2	2
Total		22	16	12

Total Credit – 22 points; Total hours – 28

Foundation Courses

Eng 3001 English

Core Course

Bot 3101/3201 Medicinal Plants
Bot 3102/3202 Plant Cytology and Anatomy
Bot 3103/3203 Plant Physiology I
Bot 3104/3204 Environmental Biology

Elective Courses

Bot 3105/3205 Floristics and Herbarium Techniques
Bot 3106/3206 Weed Science
Zool 3001 Insects of Agricultural Importance
Chem 3001 Organic Chemistry III

* A Student can choose any one elective course offered from the Department of Botany, Zoology and Chemistry to fulfill a total of 22 credits points.

Elective Course for Other Specialization

Bot 3001 Plant Ecology

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BOTANY SPECIALIZATION
(2019–2020)

Third Year BSc/First Year BSc Honours

Semester II

Module No.	Name of Module	Credit Points	Hours per Week	
			Lecture	Practical/ Tutorial
Eng 3002	English	3	2	2
Bot 3107/3207	Cell Biology	4	3	2
Bot 3108/3208	Advanced Genetics	4	3	2
Bot 3109/3209	Plant Physiology II	4	3	2
Bot 3110/3210	Applied Ecology	4	3	2
Elective	*	3	2	2
Total		22	16	12

Total Credit – 22 points; Total hours – 28

Foundation Courses

Eng 3002 English

Core Course

Bot 3107/3207 Cell Biology

Bot 3108/3208 Advanced Genetics

Bot 3109/3209 Plant Physiology II

Bot 3110/3210 Applied Ecology

Elective Courses

Bot 3111/3211 Biochemistry I

Bot 3112/3212 Plant Geography

Zool 3002 Insects Toxicology

Chem 3002 Organic Chemistry IV

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Elective Course for Other Specialization

Bot 3002 Plant Pathology

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(2019–2020)

Fourth Year BSc/Second Year BSc Honours

Semester I

Module No.	Name of Module	Credit Points	Hours per Week	
			Lecture	Practical/ Tutorial
Eng4001	English	3	2	2
Bot 4101/4201	Plant Systematics	4	3	2
Bot 4102/4202	Pharmacognosy	4	3	2
Bot 4103/4203	Microbiology	4	3	2
Bot 4104/4204	Plant Tissue Culture	4	3	2
Elective	*	3	2	2
Total		22	16	12

Total Credit – 22 points; Total hours – 28

Foundation Courses

Eng 4001 English

Core Course

Bot 4101/4201 Plant Systematics
Bot 4102/4202 Pharmacognosy
Bot 4103/4203 Microbiology
Bot 4104/4204 Plant Tissue Culture

Elective Courses

Bot 4105/4205 Research Methodology
Bot 4106/4206 Mineral Nutrition of Plant

* A Student can choose any one elective course offered by the Department of Botany to fulfill a total of 22 credits points.

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Fourth Year BSc/Second Year BSc Honours

Semester II

Module No.	Name of Module	Credit Points	Hours per Week	
			Lecture	Practical/ Tutorial
Eng4002	English	3	2	2
Bot 4107/4207	Biochemistry II	4	3	2
Bot 4108/4208	Plant Biotechnology	4	3	2
Bot 4109/4209	Applied Microbiology	4	3	2
Bot 4110/4210	Biodiversity and Conservation	4	3	2
Elective	*	3	2	2
Total		22	16	12

Total Credit – 22 points; Total hours – 28

Foundation Courses

Eng 4002 English

Core Course

Bot 4107/4207 Biochemistry II
Bot 4108/4208 Plant Biotechnology
Bot 4109/4209 Applied Microbiology
Bot 4110/4210 Biodiversity and Conservation

Elective Courses

Bot 4111/4211 Molecular Biology
Bot 4112/4212 Biostatistics I

* A Student can choose any one elective course offered by the Department of Botany to fulfill a total of 22 credits points.

Note: Project paper must be submitted by each group not more than 10 students in Fourth Year Second Semester. Group paper presentation must be included.

PYAY UNIVERSITY
DEPARTMENT OF BOTANY
CURRICULUM FOR BSc HONOURS DEGREE AND MSc QUALIFYING
BOTANY SPECIALIZATION
(2019–2020)

Third Year BSc Honours / MSc Qualifying

Semester I

Module No.	Name of Module	Credit Points	Hours per Week	
			Lecture	Practical/ Tutorial
Bot 5201	Industrial Microbiology	4	3	2
Bot 5202	Advanced Plant Physiology I	4	3	2
Bot 5203	Advanced Pharmacognosy	4	3	2
Bot 5204	Molecular Genetics	4	3	2
Bot 5205	Plant Geography	4	3	2
Bot 5206	Evolution	4	3	2
Total		24	18	12

Total Credit – 24 points; Total hours – 30

Third Year BSc Honours / MSc Qualifying

Semester II

Module No.	Name of Module	Credit Points	Hours per Week	
			Lecture	Practical/ Tutorial
Bot 5207	Microbial Biotechnology	4	3	2
Bot 5208	Advanced Plant Physiology II	4	3	2
Bot 5209	Industrial and Economic Plants	4	3	2
Bot 5210	Enzymology	4	3	2
Bot 5211	Ethnobotany	4	3	2
Bot 5212	Environmental Education and Ethics	4	3	2
Total		24	18	12

Total Credit – 24 points; Total hours – 30

Note: Project paper must be submitted by each group not more than 10 students in Third Year Honours Second Semester. Group paper presentation must be included.

PYAY UNIVERSITY
DEPARTMENT OF BOTANY
CURRICULUM FOR MASTER DEGREE COURSE FOR BOTANY
(2019–2020)

FIRST YEAR

SEMESTER I

Module No.	Name of Module	Credit Points	Hours per Week	
			Lecture	Practical/ Tutorial
Bot 611	Evolutionary Survey of Plant Kingdom	4	4	2
Bot 612	Embryology and Morphogenesis	4	4	2
Bot 613	Principle of Taxonomy	4	4	2
Bot 614	Applied Pharmacognosy	4	4	2
Total		16	16	8

FIRST YEAR

SEMESTER II

Module No.	Name of Module	Credit Points	Hours per Week	
			Lecture	Lecture
Bot 621	Advanced Microbiology	4	4	2
Bot 622	Environmental Science	4	4	2
Bot 623	Plant Biochemistry and Physiology	4	4	2
Bot 624	Molecular Biology and Biotechnology	4	4	2
Total		16	16	8

PYAY UNIVERSITY
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SECOND YEAR

SEMESTER I

Module No.	Name of Module	Credit Points
Bot 631	Research Outline Presentation (First Seminar)	4
Bot 632	Seminar for Research Outcome (Second Seminar)	4
Bot 633	Research Progress Report	4
Bot 634	Research Outline and their Presentation	4
Total		16

SECOND YEAR

SEMESTER II

Module No.	Name of Module	Credit Points
Bot 641	Research and Seminar	8
Bot 642	Thesis and Viva Voce	8
Total		16