**Course Curricula and Syllabus for PhD Degree**

**Department of Agronomy**

**Bangladesh Agricultural University**

**Mymensingh**

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| **April – September Semester** | | | | |
| **A: Compulsory Courses (9 Credits)** | | | | |
| Course Code | | Course Title | Credit | |
| AGRON 601 | | Advanced Crop Management | 3 | |
| AGRON 603 | | Seed Production and Quality Control | 3 | |
| AGRON 605 | | Scientific Research and Communication | 3 | |
| **B: Elective Course (4 Credits)** | | | | |
| Course Code | | Course Title | Credit | |
| AGRON 613 | | Agroecology and Sustainable Crop Production | 2 | |
| AGRON 615 | | Agronomy of Industrial Crops | 2 | |
| AGRON 617 | | Crop Husbandry for Vulnerable Ecosystem | 2 | |
| AGRON 619 | | Crop Quality Control and Improvement | 2 | |
| AGRON 621 | | Green Agriculture | 2 | |
| AGRON 623 | | Precision Agriculture and Crop Modeling | 2 | |
| **October − March Semester** | | | | |
| **A: Compulsory Courses (9 Credits)** | | | | |
| Course Code | | Course Title | Credit | |
| AGRON 607 | | Crop Environment Interactions | 3 | |
| AGRON 609 | | Climate Smart Agronomy | 3 | |
| AGRON 611 | | Farming Systems | 3 | |
| **B: Elective Course (2 Credits)** | | | | |
| Course Code | | Course Title | Credit | |
| AGRON 625 | | Integrated Nutrient Management for Crop Production | 2 | |
| AGRON 627 | | Recent Trends in Weed Management | 2 | |
| AGRON 629 | | Abiotic Stress Management in Crop | 2 | |
| AGRON 631 | | Advances in Water Management | 2 | |
|  | | | | |
| Seminar (Two) | | | 4 (S/U) | |
| Research Reports (End of first and third year) | | | 4 (S/U) | |
| Research | | | 23(S/U) | |
| Dissertation evaluation | | | 15(S/U) | |
| Dissertation defense | | | 6(S/U) | |
| **GRAND TOTAL** | | | **76** | |

**S/U where S=Satisfactory and U=Unsatisfactory**

**Course Curricula and Syllabus for PhD Degree**

**Department of Soil Science**

**Bangladesh Agricultural University**

**Mymensingh**

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| **April – September Semester** | | | | | |
| **A:Compulsory Courses (9 Credits)** | | | | | |
| Course Code | | Course Title | Credit | | |
| SS 607 | | Advanced Soil Fertility and Plant Nutrition | 3 | | |
| SS 609 | | Advanced Soil Degradation and Conservation | 3 | | |
| SS 611 | | Advanced Research and Reporting | 3 | | |
| **B:Elective Courses (2/4 Credits)** | | | | | |
| Course Code | | Course Title | Credit | | |
| SS 523 | | Soil Water | 2 | | |
| SS 525 | | Soil Resilience and Climate Change | 2 | | |
| SS 527 | | Micronutrients in Soils and Plants | 2 | | |
| SS 529 | | Soil Health and Risk Reduction | 2 | | |
| **October − March Semester** | | | | | |
| **A:Compulsory Courses (9 Credits)** | | | | | |
| Course Code | | Course Title | Credit | | |
| SS 601 | | Advanced Soil Physics | 3 | | |
| SS 603 | | Advanced Soil Chemistry | 3 | | |
| SS 605 | | Advanced Soil Microbiology | 3 | | |
| **B:Elective Course (2/4 Credits)** | | | | | |
| Course Code | | Course Title | Credit | | |
| SS 515 | | Waste Management and Biofertilizer | 2 | | |
| SS 517 | | Soils of Bangladesh | 2 | | |
| SS 519 | | Soil, Water and Air Pollution | 2 | | |
| SS 521 | | Soil, Water and Fertilizer Management using Nuclear Techniques | 2 | | |
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| Seminar (Two) | | |  | 4 (S/U) | |
| Research Reports (End of first and third year) | | |  | 4 (S/U) | |
| Research | | |  | 23(S/U) | |
| Dissertation evaluation | | |  | 15(S/U) | |
| Dissertation defense | | |  | 6(S/U) | |
| **GRAND TOTAL** | | |  | 76(S/U) | |

**S/U where S=Satisfactory and U=Unsatisfactory**

**Course Curricula and Syllabus for PhD Degree**

**Department of Entomology**

**Bangladesh Agricultural University**

**Mymensingh**

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| **April- September Semester** | | |
| **A: Compulsory Courses (9 Credits)** | | |
| Course Code | Course Title | Credit |
| ENTOM 601 | Advanced Insect Taxonomy | 3 |
| ENTOM 603 | Advanced Insect Ecology | 3 |
| ENTOM 605 | Applied Insect Pest Management | 3 |
| **B: Elective Courses (2/4 Credits)** | | |
| Course Code | Course Title | Credit |
| ENTOM 613 | Advanced Insecticide Toxicology | 2 |
| ENTOM 615 | Plant Biosecurity and Biosafety | 2 |
| ENTOM 617 | Advanced Techniques in Entomology | 2 |
| ENTOM 619 | Molecular Approaches in Entomology | 2 |
| ENTOM 621 | Post Harvest Entomology | 2 |
| ENTOM 509 | Insect Nutrition & Biochemistry | 2 |
| ENTOM 513 | Insect Pathology | 2 |
| ENTOM 523 | Industrial Entomology | 2 |
| ENTOM 527 | Chemical Ecology | 2 |
| **October- March Semester** | | |
| **A: Compulsory Courses (9 Credits)** | | |
| Course Code | Course Title | Credit |
| ENTOM 607 | Advanced Insect Physiology | 3 |
| ENTOM 609 | Advances in Pesticide Management | 3 |
| ENTOM 611 | Research Methodology in Entomology | 3 |
| **B: Elective Courses (2/ 4 Credits)** | | |
| Course Code | Course Title | Credit |
| ENTOM 623 | Advanced Host Plant Resistance | 2 |
| ENTOM 625 | Haor and Wet Land Entomology | 2 |
| ENTOM 627 | Invasive Pest Management | 2 |
| ENTOM 629 | Advanced Biological Control | 2 |
| ENTOM 631 | Integrated Pest management: Development and Implementation Perspective | 2 |
| ENTOM 517 | Insect Biodiversity and Evolution | 2 |
| ENTOM 525 | Insect Morphology | 2 |
| ENTOM 529 | Insect Biotechnology | 2 |
| ENTOM 531 | Acarology | 2 |
|  | | |
| Seminar (Two) | | 4 (S/U) |
| Research Reports (End of first and third year) | | 4 (S/U) |
| Research | | 23 (S/U) |
| Dissertation evaluation | | 15 (S/U) |
| Dissertation defense | | 6 (S/U) |
| **GRAND TOTAL** | | 76 |

**S/U where S=Satisfactory and U=Unsatisfactory**

**Course Curricula and Syllabus for PhD Degree**

**Department of Horticulture**

**Bangladesh Agricultural University**

**Mymensingh**

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| **April-September Semester** | | |
| **A: Compulsory Courses (9 Credits)** | | |
| **Course Code** | **Course Title** | **Credit** |
| Hort 601 | Advances in Pomology | 3 |
| Hort 603 | Advances in Ornamental and Landscape Horticulture | 3 |
| Hort 605 | Horticultural Crop Improvement | 3 |
| **B: Elective Courses (2/4 Credits)** | | |
| **Course Code** | **Course Title** | **Credit** |
| Hort 621 | Climate Smart Horticulture | 2 |
| Hort 623 | Homestead Agroforestry and Gardening | 2 |
| Hort 625 | Stress Management of Horticultural Crops | 2 |
| Hort 627 | Special Techniques for Horticultural Crop Production | 2 |
| Hort 629 | Roof Top Gardening | 2 |
| Hort 631 | Principles and Practices of Organic Horticulture | 2 |
| Hort 633 | Biodiversity and Conservation of Horticultural Crops | 2 |
| Hort.635 | Seed Technology of Horticultural Crops | 2 |
| Hort 637 | Medicinal, Aromatic and Plantation Crops | 2 |

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| **October-March Semester** | | |
| **A: Compulsory Courses (9 Credits)** | | |
| **Course Code** | **Course Title** | **Credit** |
| Hort 611 | Advances in Floriculture | 3 |
| Hort 613 | Advanced Postharvest Technology of Horticultural Crops | 3 |
| Hort 615 | Research Methodology | 3 |
| **B: Elective Courses (2/4 Credits)** | | |
| **Course Code** | **Course Title** | **Credit** |
| Hort 641 | Sustainable Horticulture | 2 |
| Hort 643 | Horticulture and Human Nutrition | 2 |
| Hort 645 | Plant Growth Regulators in Horticulture | 2 |
| Hort 647 | Food Quality and Safety in Horticulture | 2 |
| Hort 649 | Horticultural Production in Changing Climate | 2 |
| Hort 651 | Advanced Propagation Techniques of Horticultural Crops | 2 |
| Hort 653 | Advanced Nursery Management | 2 |
| Hort 655 | Advanced Physiology of Horticultural Crops | 2 |
| Hort 657 | Advances in Root and Tuber Crops | 2 |
| Hort 659 | Underutilized Minor Fruits | 2 |
| Hort 661 | Aquatic Horticulture | 2 |
|  | | |
| Seminar (Two) | | 4 (S/U) |
| Research Reports (End of first and third year) | | 4 (S/U) |
| Research | | 23(S/U) |
| Dissertation evaluation | | 15(S/U) |
| Dissertation defense | | 6(S/U) |
| **GRAND TOTAL** | | 76(S/U) |

S/U where S=Satisfactory and U=Unsatisfactory

**Course Curricula and Syllabus for PhD Degree**

**Department of Plant Pathology**

**Bangladesh Agricultural University**

**Mymensingh**

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| **April – September Semester** | | | | | |
| **A:Compulsory Courses (9 Credits)** | | | | | |
| **Course Code** | | **Course Title** | | **Credit** | |
| P.PATH 615 | | Signal Transduction in Plant Microbe Interaction | | 3 | |
| P.PATH 617 | | Nanotechnology in Plant Pathology | | 3 | |
| P.PATH 619 | | Molecular Techniques in Plant Pathology | | 3 | |
| **B:Elective Courses (3 Credits)** | | | | | |
| **Course Code** | | **Course Title** | | **Credit** | |
| P.PATH 621 | | Formulation & Application of Microbial Bioagents | | 3 | |
| P.PATH 623 | | Information Technology and Plant Pathology | | 3 | |
| P.PATH 625 | | Biological Control of Plant Pathogens | | 3 | |
| P.PATH 627 | | Breeding for Disease Resistance | | 3 | |
| P.PATH 604 | | Plant Biosecurity and Biosafety | | 3 | |
| **October − March Semester** | | | | | |
| **A:Compulsory Courses (9 Credits)** | | | | | |
| **Course Code** | | **Course Title** | | **Credit** | |
| P.PATH 601 | | Advances in Plant Disease Management | | 3 | |
| P.PATH 603 | | Professional Development and Ethics in Plant Pathology | | 3 | |
| P.PATH 605 | | Microbial Biofilm and Plant Microbe Interaction | | 3 | |
| **B:Elective Course (3 Credits)** | | | | | |
| **Course Code** | | **Course Title** | | **Credit** | |
| P.PATH 607 | | Microbial Pesticide and Pesticide Toxicology | | 3 | |
| P.PATH 609 | | Genetics of Plant Pathogens | | 3 | |
| P.PATH 611 | | Emerging Plant Disease and Food Security | | 3 | |
| P.PATH 613 | | Plant health and Organic Agriculture | | 3 | |
| P.PATH 602 | | Applied Bioinformatics in Plant Pathology | | 3 | |
|  | | | | | |
| Seminar (Two) | |  | | 4 (S/U) | |
| Research Reports (End of first and third year) | |  | | 4 (S/U) | |
| Research | |  | | 23(S/U) | |
| Dissertation evaluation | |  | | 15(S/U) | |
| Dissertation defense | |  | | 6(S/U) | |
| **GRAND TOTAL** | |  | | 76(S/U) | |

S/U where S=Satisfactory and U=Unsatisfactory

**Course Curricula and Syllabus for PhD Degree**

**Department of Crop Botany**

**Bangladesh Agricultural University**

**Mymensingh**

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| **April – September Semester** | | | |
| **A:Compulsory Courses (9 Credits)** | | | |
| **Course Code** | **Course Title** | **Credit** | |
| CBOT 601 | Plant Morphometrics and Systematics | 3 | |
| CBOT 603 | Plant Ecology and Phytoclimate | 3 | |
| CBOT 605 | Plant Physiology | 3 | |
| **B:Elective Courses (2/4 Credits)** | | | |
| **Course Code** | **Course Title** | **Credit** | |
| CBOT 613 | Biodiversity and Conservation | 2 | |
| CBOT 615 | Systems Ecology | 2 | |
| CBOT 617 | Phyto-Nanotechnology | 2 | |
| CBOT 619 | Crop Physiology | 2 | |
| CBOT 621 | Crop Phylogeny and Evolution | 2 | |
| CBOT 623 | Research Methodology and Report Writing | 2 | |
| **October − March Semester** | | | |
| **A:Compulsory Courses (9 Credits)** | | | |
| **Course Code** | **Course Title** | **Credit** | |
| CBOT 607 | Medicinal Plants | 3 | |
| CBOT 609 | Plant Stress Physiology | 3 | |
| CBOT 611 | Eco-efficient and Climate Smart Agriculture | 3 | |
| **B:Elective Course (2/4 Credits)** | | | |
| **Course Code** | **Course Title** | **Credit** | |
| CBOT 625 | Data Analysis and Visualization | 2 | |
| CBOT 627 | Climate Change Impact Assessment | 2 | |
| CBOT 629 | Internet of Things in Agriculture | 2 | |
| CBOT 631 | Photophysiology and Vertical Agriculture | 2 | |
| CBOT 633 | Applied Plant Tissue Culture | 2 | |
| CBOT 635 | Plant Ecophysiology | 2 | |
|  | | | |
| Seminar (Two) | | 4 (S/U) |
| Research Reports (End of first and third year) | | 4 (S/U) |
| Research | | 23(S/U) |
| Dissertation evaluation | | 15(S/U) |
| Dissertation defense | | 6(S/U) |
| **GRAND TOTAL** | | 76(S/U) |

S/U where S=Satisfactory and U=Unsatisfactory

**Course Curricula and Syllabus for PhD Degree**

**Department of Genetics and Plant Breeding**

**Bangladesh Agricultural University**

**Mymensingh**

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| **April – September Semester** | | | | | |
| **A:Compulsory Courses (9 Credits)** | | | | | |
| **Course Code** | | **Course Title** | **Credit** | | |
| GPB 601 | | Advanced Plant Breeding | 3 | | |
| GPB 603 | | Molecular Genetics & Cytogenetics | 3 | | |
| GPB 605 | | Genetics of Plant Stress & Adaptation | 3 | | |
| **B:Elective Courses (4 Credits)** | | | | | |
| **Course Code** | | **Course Title** | **Credit** | | |
| GPB 613 | | Scientific Writing & Communication | 2 | | |
| GPB 615 | | Plant Genetic Resources and Pre-breeding | 2 | | |
| GPB 617 | | Applied Hybrid Breeding | 2 | | |
| GPB 619 | | Analytical Genomics and Bioinformatics | 2 | | |
| **October − March Semester** | | | | | |
| **A:Compulsory Courses (9 Credits)** | | | | | |
| **Course Code** | | **Course Title** | **Credit** | | |
| GPB 607 | | Molecular Breeding | 3 | | |
| GPB 609 | | Applied Biometrical Genetics | 3 | | |
| GPB 611 | | Plant Biotechnology & Genetic Engineering | 3 | | |
| **B:Elective Course (2 Credits)** | | | | | |
| **Course Code** | | **Course Title** | **Credit** | | |
| GPB 621 | | Applied Stress Breeding | 2 | | |
| GPB 623 | | Industrial Plant Breeding | 2 | | |
| GPB 625 | | Multivariate Statistics | 2 | | |
| GPB 602 | | Skill Development and Field Attachment | 2 | | |
|  | | | | | |
| Seminar (Two) | | |  | 4 (S/U) | |
| Research Reports (End of first and third year) | | |  | 4 (S/U) | |
| Research | | |  | 23(S/U) | |
| Dissertation evaluation | | |  | 15(S/U) | |
| Dissertation defense | | |  | 6(S/U) | |
| **GRAND TOTAL** | | |  | 76(S/U) | |

S/U where S=Satisfactory and U=Unsatisfactory

**Course Curricula and Syllabus for PhD Degree**

**Department of Agricultural Extension Education**

**Bangladesh Agricultural University**

**Mymensingh**

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| **April – September Semester** | | | | | |
| **A:Compulsory Courses (9 Credits)** | | | | | |
| **Course Code** | | **Course Title** | | **Credit** | |
| AGEXT 601 | | Advanced Research Methods in Social Science-I | | 3 | |
| AGEXT 603 | | Ethics in Research and Academia | | 3 | |
| AGEXT 605 | | Communication and Innovation Management | | 3 | |
| **B:Elective Courses (3 Credits)** | | | | | |
| **Course Code** | | **Course Title** | | **Credit** | |
| AGEXT 607 | | Human Resource and Training Management | | 3 | |
| AGEXT 609 | | Extension Approaches to Climate Risk Management | | 3 | |
| **October − March Semester** | | | | | |
| **A:Compulsory Courses (9 Credits)** | | | | | |
| **Course Code** | | **Course Title** | | **Credit** | |
| AGEXT 611 | | Advanced Research Methods in Social Science-II | | 3 | |
| AGEXT 613 | | Theoretical Approaches of Extension Education | | 3 | |
| AGEXT 615 | | Leadership Development in Agricultural Extension | | 3 | |
| **B:Elective Course ( 3 Credits)** | | | | | |
| **Course Code** | | **Course Title** | | **Credit** | |
| AGEXT 617: | | Participatory Community Development | | 3 | |
| AGEXT 619: | | Project Development and Evaluation | | 3 | |
|  | | | | | |
| Seminar (Two) | |  | | 4 (S/U) | |
| Research Reports (End of first and third year) | |  | | 4 (S/U) | |
| Research | |  | | 23 (S/U) | |
| Dissertation evaluation | |  | | 15 (S/U) | |
| Dissertation defense | |  | | 6 (S/U) | |
| **GRAND TOTAL** | |  | | 76 | |

S/U where S=Satisfactory and U=Unsatisfactory

**Course Curricula and Syllabus for PhD Degree**

**Department of Agricultural Chemistry**

**Bangladesh Agricultural University**

**Mymensingh**

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| **April – September Semester** | | | |
| **A: Compulsory Courses (9 Credits)** | | | |
| **Course Code** | **Course Title** | | **Credit** |
| ACHEM 604 | Advanced Research Methodology and Data Processing | | 3 |
| ACHEM 605 | Nuclear Chemistry in Agriculture | | 3 |
| ACHEM 607 | Applied Environmental Chemistry | | 3 |
| **B: Elective Courses (2/4 Credits)** | | | |
| **Course Code** | **Course Title** | | **Credit** |
| ACHEM 621 | Formulation Techniques of Agrochemicals | | 3 |
| ACHEM 623 | Rhizosphere Technology and Plant Ionomics | | 3 |
| ACHEM 625 | Chemistry and Technology of Bio and Renewable Energy | | 3 |
| ACHEM 627 | Green Chemistry and Sustainable Agriculture | | 3 |
| ACHEM 629 | Nanotechnology in Agriculture | | 3 |
| ACHEM 631 | Micro and Trace Elements in Agriculture | | 3 |
| **October − March Semester** | | | |
| **A: Compulsory Courses (9 Credits)** | | | |
| **Course Code** | **Course Title** | | **Credit** |
| ACHEM 601 | Advanced Chemistry of Agrochemicals | | 3 |
| ACHEM 602 | Advanced Instrumental Methods and Analytical Techniques | | 3 |
| ACHEM 603 | Mineral Nutrition of Higher Plants | | 3 |
| **B: Elective Courses (2/4 Credits)** | | | |
| **Course Code** | **Course Title** | | **Credit** |
| ACHEM 609 | Applied Waste Management Technologies | | 3 |
| ACHEM 611 | Advanced Water Science | | 3 |
| ACHEM 613 | Chemical Sensors and Biosensors | | 3 |
| ACHEM 615 | Quality Control and Food Safety | | 3 |
| ACHEM 617 | Chemistry and Technology of Organic Agriculture | | 3 |
| ACHEM 619 | Chemistry and Technology of Biosorption | | 3 |
|  | | | |
| Seminar (Two) | |  | 4 (S/U) |
| Research Reports (End of first and third year) | |  | 4 (S/U) |
| Research | |  | 23 (S/U) |
| Dissertation evaluation | |  | 15 (S/U) |
| Dissertation defense | |  | 6 (S/U) |
| **GRAND TOTAL** | |  | 76 |

**S/U where S=Satisfactory and U=Unsatisfactory**

**Course Curricula and Syllabus for PhD Degree**

**Department of Biochemistry and Molecular Biology**

**Bangladesh Agricultural University**

**Mymensingh**

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| **April – September Semester** | | |
| **A:Compulsory Courses (9 Credits)** | | |
| **Course Code** | **Course Title** | **Credit** |
| BMB 607: | Applied Molecular Biology | 3 |
| BMB 609: | Bioinformatics and System Biology | 3 |
| BMB 611: | Research Methodology | 3 |
| **B:Elective Courses (2/4 Credits)** | | |
| **Course Code** | **Course Title** | **Credit** |
| BMB 619: | Special Topics in Biochemistry | 2 |
| BMB 621: | Comparative Biochemistry | 2 |
| BMB 623: | Advanced Animal Biochemistry | 2 |
| **October − March Semester** | | |
| **A:Compulsory Courses (9 Credits)** | | |
| **Course Code** | **Course Title** | **Credit** |
| BMB 601: | Advanced Chemistry of Biomolecules | 3 |
| BMB 603: | Advanced Protein Structure and Functions | 3 |
| BMB 605: | Advanced Nutrition and Metabolism | 3 |
| **B:Elective Course (2/4 Credits)** | | |
| **Course Code** | **Course Title** | **Credit** |
| BMB 613: | Biochemistry of Natural Products | 2 |
| BMB 615: | Applied Plant Biochemistry | 2 |
| BMB 617: | Advanced Diagnostics and DNA Forensic Sciences | 2 |
|  | | |
| Seminar (Two) | | 4 (S/U) |
| Research Reports (End of first and third year) | | 4 (S/U) |
| Research | | 23 (S/U) |
| Dissertation evaluation | | 15 (S/U) |
| Dissertation defense | | 6 (S/U) |
| **GRAND TOTAL** | | 76 |

**S/U where S=Satisfactory and U=Unsatisfactory**

**Course Curricula and Syllabus for PhD Degree**

**Department of Agroforestry**

**Bangladesh Agricultural University**

**Mymensingh**

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| **April-September Semester** | | |
| **A: Compulsory Courses (9 Credits)** | | |
| **Course Code** | **Course Title** | **Credit** |
| AF 601 | Principles and Practices of Agroforestry | 3 |
| AF 603 | Agroforestry Species | 3 |
| AF 605 | Participatory Forestry and Rural Development | 3 |
| **B: Elective Courses (3 Credits)** | | |
| **Course Code** | **Course Title** | **Credit** |
| AF 613 | Soil Conservation in Agroforestry | 3 |
| AF 615 | Medicinal Plants in Agroforestry | 3 |
| **October-March Semester** | | |
| **A: Compulsory Courses (9 Credits)** | | |
| **Course Code** | **Course Title** | **Credit** |
| AF 607 | Agroforestry Components and Interactions | 3 |
| AF 609 | Impact Assessment Procedure in Agroforestry | 3 |
| AF 611 | Advanced Research Methodology in Agroforestry | 3 |
| **B: Elective Courses (3 Credits)** | | |
| **Course Code** | **Course Title** | **Credit** |
| AF 617 | Silvicultural Management in Agroforestry | 3 |
| AF 619 | Conservation of Environment through Agroforestry | 3 |
|  | | |
| Seminar (two) | | 4 (S/U) |
| Research Reports (End of first and third year) | | 4 (S/U) |
| Research | | 23 (S/U) |
| Dissertation evaluation | | 15 (S/U) |
| Dissertation defense | | 6 (S/U) |
| **GRAND TOTAL** | | 76 |

**S/U where S=Satisfactory and U=Unsatisfactory**

**Course Curricula and Syllabus for PhD Degree**

**Department of Biotechnology**

**Bangladesh Agricultural University**

**Mymensingh**

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| **April- September Semester** | | |
| **A: Compulsory Courses (9 credits)** | | |
| **Course Code** | **Course Title** | **Credit** |
| BIOTECH 601 | Advanced Molecular Cell Biology | 3 |
| BIOTECH 603 | Genetic Engineering | 3 |
| BIOTECH 605 | Advanced Molecular Techniques in Bioscience | 3 |
| **B: Elective Courses (2 credits)** | | |
| **Course Code** | **Course Title** | **Credit** |
| BIOTECH 613 | Fish and Marine Biotechnology | 2 |
| BIOTECH 615 | Animal Biotechnology | 2 |
| BIOTECH 617 | Plant Biotechnology | 2 |
| **October- March Semester** | | |
| **A: Compulsory Courses (9 credits)** | | |
| **Course Code** | **Course Title** | **Credit** |
| BIOTECH 607 | Genomics and Bioinformatics | 3 |
| BIOTECH 609 | Biosafety and Bioethics in Biotechnology | 3 |
| BIOTECH 611 | Research Methodology and Scientific Writing | 3 |
| **B: Elective Courses (4 credits)** | | |
| **Course Code** | **Course Title** | **Credit** |
| BIOTECH 619 | Industrial Biotechnology | 2 |
| BIOTECH 621 | Environmental Biotechnology | 2 |
| BIOTECH 623 | Pharmaceutical Biotechnology | 2 |
| BIOTECH 625 | Synthetic Biology | 2 |
|  | | |
| Seminar (Two) | | 4 (S/U) |
| Research Reports (End of first and third year) | | 4 (S/U) |
| Research | | 23 (S/U) |
| Dissertation evaluation | | 15 (S/U) |
| Dissertation defense | | 6 (S/U) |
| **Grand Total** | | 76 |

**S/U where S=Satisfactory and U=Unsatisfactory**

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| **Course Curricula and Syllabus for PhD Degree**  **Department of Environmental Science**  **Bangladesh Agricultural University**  **Mymensingh** | | |
| **April - September Semester** | | |
| **A. Compulsory courses (9 Credits)** | | |
| **Course Code** | **Course Title** | **Credits** |
| ENVSC 607 | Ecosystem and biodiversity | 3 |
| ENVSC 609 | Climate Change: Science, Impacts and Solutions | 3 |
| ENVSC 611 | Disaster Science and Management | 3 |
| **B. Elective courses (2/4 Credits)** | | |
| **Course Code** | **Course Title** | **Credits** |
| ENVSC 621 | Waste Management | 2 |
| ENVSC 623 | Ecotoxicology and Environmental Hazards | 2 |
| ENVSC 625 | Applied Environmental Impact Assessment | 2 |
| AAS 613 | Environmental Statistics | 2 |
| **October - March Semester** | | |
| **A. Compulsory courses (9 Credits)** | | |
| **Course Code** | **Course Title** | **Credits** |
| ENVSC 601 | Advanced Environmental Science | 3 |
| ENVSC 603 | Environmental Pollution and Management | 3 |
| ENVSC 605 | Research Methodology | 3 |
| **B. Elective courses (2/4 Credits)** | | |
| **Course Code** | **Course Title** | **Credits** |
| ENVSC 613 | Atmospheric Aerosols | 2 |
| ENVSC 615 | Meteorology and Weather Forecasting | 2 |
| ENVSC 617 | GIS, Climate Modeling and Geographic Mapping | 2 |
| ENVSC 619 | Advanced Environmental Instrumental Analysis | 2 |
|  | | |
| **Seminar (Two)** | | 4 (S/U) |
| **Research Reports (End of first and third year)** | | 4 (S/U) |
| **Research** | | 23 (S/U) |
| **Dissertation evaluation** | | 15 (S/U) |
| **Dissertation Defense** | | 6 (S/U) |
| **GRAND TOTAL** | | 76 |

**S/U where S=Satisfactory and U=Unsatisfactory**

**Course Curricula and Syllabus for PhD Degree**

**Department of Seed Science and Technology**

**Bangladesh Agricultural University**

**Mymensingh**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **April – September Semester** | | | | | |
| **A:Compulsory Courses (9 Credits)** | | | | | |
| **Course Code** | | **Course Title** | | **Credit** | |
| SST 601 | | Advances in Seed Production, Regulation and Governance | | 3 | |
| SST 603 | | Seed Physiology and Technology | | 3 | |
| SST 605 | | Tree seed technology | | 3 | |
| **B:Elective Courses (2/4 Credits)** | | | | | |
| **Course Code** | | **Course Title** | | **Credit** | |
| SST 620 | | Seed Quality Enhancement | | 2 | |
| SST 622 | | Biosafety of GM Seeds | | 2 | |
| SST 624 | | Hybrid Seed Technology | | 2 | |
| **October − March Semester** | | | | | |
| **A:Compulsory Courses (9 Credits)** | | | | | |
| **Course Code** | | **Course Title** | | **Credit** | |
| SST 607 | | Seed Conditioning and storage facilities | | 3 | |
| SST 609 | | Seed Planning, Movement and Marketing management | | 3 | |
| SST 611 | | Seed Health management | | 3 | |
| **B:Elective Course (2/4 Credits)** | | | | | |
| **Course Code** | | **Course Title** | | **Credit** | |
| SST 626 | | Advanced Laboratory Techniques in Seed Science and Technology | | 2 | |
| SST 628 | | Ecological Aspects of Seeds | | 2 | |
| SST 630 | | Seed Technology and Nutrient Uptake | | 2 | |
|  | |  | |  | |
|  | | | | | |
| Seminar (Two) | |  | | 4 (S/U) | |
| Research Reports (End of first and third year) | |  | | 4 (S/U) | |
| Research | |  | | 23 (S/U) | |
| Dissertation evaluation | |  | | 15 (S/U) | |
| Dissertation defense | |  | | 6 (S/U) | |
| **GRAND TOTAL** | |  | | 76 | |

**S/U where S=Satisfactory and U=Unsatisfactory**