**Doctor of Philosophy Program in Biochemistry**

**Name of Degree:** Doctor of Philosophy (Biochemistry)

**Abbreviation:** Ph.D. (Biochemistry)

**Admission Requirements**

Type 1.1:

Hold a master's degree in biochemistry or related fields with a GPA of at least 3.50

Type 2.1:

Hold a master's degree in biochemistry or related fields with a GPA of at least 2.50

Type 2.2:

Hold a bachelor's degree in biochemistry or related fields with a GPA of at least 3.25

**Curriculum**

**Total Credits**

Type 1.1 51 Credits

Type 2.1 51 Credits

Type 2.2 76 Credits

**Curriculum Structure**

|  |  |  |  |
| --- | --- | --- | --- |
| **Subject** | **Number of Credit** | | |
| **Type 1.1** | **Type 2.1** | **Type 2.2** |
| Required Courses | - | 12 | 14 |
| Elective Courses | - | 3 | 14 |
| Dissertation | 51 | 36 | 48 |
| **Total** | 51 | 51 | 76 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **First Year, 1st Semester** | | **Number of Credit** | | |
| **Course Number** | **Course Title** | **Type 1.1** | **Type 2.1** | **Type 2.2** |
| 318 701 | Biochemistry for Graduate Study I | - | 3(3-0-6) | 3(3-0-6) |
| 318 981 | Seminar in Biochemistry for Ph.D program I | 1(1-0-2)  (Non Credit) | - | - |
| 318 996 | Dissertation | 9 | - | - |
| xxx xxx\*\* | Electives | - | 3 | 9 |
| **Total credits** | | **9** | **6** | **12** |
| **cumulative credits** | | **9** | **6** | **12** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **First Year, 2nd Semester** | | **Number of Credit** | | |
| **Course Number** | **Course Title** | **Type 1.1** | **Type 2.1** | **Type 2.2** |
| 318 702 | Biochemistry for Graduate Study II | - | 3(3-0-6) | 3(3-0-6) |
| 318 715 | Advanced Biochemical Techniques | - | 1(1-0-2) | 1(1-0-2) |
| 318 716 | Laboratory in Advanced Biochemical Techniques | - | 1(0-3-2) | 1(0-3-2) |
| 318 981 | Seminar in Biochemistry for Ph.D program I | - | 1(1-0-2) | 1(1-0-2) |
| 318 982 | Seminar in Biochemistry for Ph.D program II | 1(1-0-2)  (Non Credit) | - | - |
| 318 996 | Dissertation | 9 | - | - |
| 318 998 | Dissertation | - | 3 | - |
| xxx xxx\*\* | Electives | - | - | 5 |
| **Total credits** | | **9** | **9** | **11** |
| **cumulative credits** | | **18** | **15** | **23** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Second Year, 1st Semester** | | **Number of Credit** | | |
| **Course Number** | **Course Title** | **Type 1.1** | **Type 2.1** | **Type 2.2** |
| 318 982 | Seminar in Biochemistry for Ph.D program II | - | 1(1-0-2) | 1(1-0-2) |
| 318 983 | Seminar in Biochemistry for Ph.D program III | 1(1-0-2)  (Non Credit) | - | - |
| 318 996 | Dissertation | 9 | - | - |
| 318 998 | Dissertation | - | 9 | - |
| 318 999 | Dissertation | - | - | 9 |
| **Total** | | **9** | **10** | **10** |
| **cumulative credits** | | **27** | **25** | **33** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Second Year, 2nd Semester** | | **Number of Credit** | | |
| **Course Number** | **Course Title** | **Type 1.1** | **Type 2.1** | **Type 2.2** |
| 318 983 | Seminar in Biochemistry for Ph.D program III | - | 1(1-0-2) | 1(1-0-2) |
| 318 984 | Seminar in Biochemistry for Ph.D program IV | 1(1-0-2)  (Non Credit) | - | - |
| 318 996 | Dissertation | 9 | - | - |
| 318 998 | Dissertation | - | 9 | - |
| 318 999 | Dissertation | - | - | 9 |
| **Total** | | **9** | **10** | **10** |
| **cumulative credits** | | **36** | **35** | **43** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Third Year, 1st Semester** | | **Number of Credit** | | |
| **Course Number** | **Course Title** | **Type 1.1** | **Type 2.1** | **Type 2.2** |
| 318 984 | Seminar in Biochemistry for Ph.D program IV | - | 1(1-0-2) | 1(1-0-2) |
| 318 985 | Seminar in Biochemistry for Ph.D program V | 1(1-0-2)  (Non Credit) | - | - |
| 318 996 | Dissertation | 9 | - | - |
| 318 998 | Dissertation | - | 9 | - |
| 318 999 | Dissertation | - | - | 9 |
| **Total** | | **9** | **10** | **10** |
| **cumulative credits** | | **45** | **45** | **53** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Third Year, 2nd Semester** | | **Number of Credit** | | |
| **Course Number** | **Course Title** | **Type 1.1** | **Type 2.1** | **Type 2.2** |
| 318 985 | Seminar in Biochemistry for Ph.D program V | - | - | 1(1-0-2) |
| 318 986 | Seminar in Biochemistry for Ph.D program VI | 1(1-0-2)  (Non Credit) | - | - |
| 318 996 | Dissertation | 6 | - | - |
| 318 998 | Dissertation | - | 6 | - |
| 318 999 | Dissertation | - | - | 9 |
| **Total** | | **6** | **6** | **10** |
| **cumulative credits** | | **51** | **51** | **63** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Fourth Year, 1st Semester** | | **Number of Credit** | | |
| **Course Number** | **Course Title** | **Type 1.1** | **Type 2.1** | **Type 2.2** |
| 318 986 | Seminar in Biochemistry for Ph.D program VI | - | - | 1(1-0-2) |
| 318 999 | Dissertation | - | - | 9 |
| **Total** | | **-** | **-** | **10** |
| **cumulative credits** | | **-** | **-** | **73** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Fourth Year, 2nd Semester** | | **Number of Credit** | | |
| **Course Number** | **Course Title** | **Type 1.1** | **Type 2.1** | **Type 2.2** |
| 318 999 | Dissertation | - | - | 3 |
| **Total** | | **-** | **-** | **3** |
| **cumulative credits** | | **-** | **-** | **76** |

**\*\* Electives**

318 713 Biological Techniques for Graduate Study 1(1-0-2)

318 714 Laboratory in Biological Techniques for Graduate Study 2(0-6-3)

318 722 Integrated Biochemistry 3(3-0-6)

318 724 Advanced Genetic Engineering in Prokaryotic Cells 2(2-0-4)

318 731 PCR Technology 3(3-0-6)

318 733 Protein Structure and Function 2(2-0-4)

318 734 Application of Immunological Techniques in Research Work 1(1-0-2)

318 735 Biochemistry and Biology of Cancer 3(3-0-6)

318 737 Analysis and Presentation of Biological Science articles 2(2-0-4)

318 891 Research Skill in Biochemistry 2(0-6-3)

**Lecturers**

1. Assoc. Prof. Thanaset Senawong, Ph.D. (Molecular and Cellular Biology)
2. Assoc. Prof. Sompong Klaynongsruang, Ph.D. (Biochemistry)
3. Assoc. Prof. Yanee Trongpanich, Ph.D. (Biochemistry)
4. Asst. Prof. Nipa Milintawisamai, Ph.D. (Soil Sciences)
5. Asst. Prof. Suporn Nuchdumrong, Ph.D. (Biochemistry)
6. Asst. Prof. Prasarn Sawassitang, Ph.D. (Nutrition
7. Asst. Prof. Komsorn Lomthaisong, Ph.D. (Biochemistry and Physiology)
8. Asst. Prof. Paweena Pongdontri, Ph.D. (Biochemistry)
9. Asst. Prof. Rina Patramanon, Ph.D. (Biological Chemistry)
10. Dr. Somporn Katekaew, Ph.D. (Biochemistry)
11. Dr. Chamaiporn Champasri, Ph.D. (Biochemistry)
12. Dr. Gulsiri Senawong, Ph.D. (Molecular Biology and Genetic Engineering)