

First-Year Core Curriculum

| <u>Courses</u> | <u>Credit Hours</u> |
|---|---------------------|
| Cellular Structure and Function | 4 |
| General principles | |
| Membrane structure and transport | |
| Cell signaling | |
| Cell proliferation and cell death | |
| Cell structure | |
| Incorporation of literature-based journal clubs | |
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| Fundamentals of Integrated Systems | 4 |
| Basic Endocrinology | |
| Principles of Neurobiology | |
| Fundamentals of Immunology & Microbial Pathogenesis | |
| Incorporation of Principles of Pharmacology and literature-based journal clubs | |
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| Cellular Methods | 1 (S,U) |
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| Discussions on Scientific Integrity | 1 (S,U) |
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| Research Laboratory Rotation (1st) | 1 |
| October 5 to November 20 | |
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| TOTAL CREDITS | 11 |

| <u>Courses</u> | | | <u>Credit Hours</u> |
|--|----------------|-----------------------------------|---------------------|
| Molecular Genetics | | | 3 |
| DNA to protein and regulation of these processes | | | |
| Genetics | | | |
| Cell Specification and Differentiation | | | |
| Incorporation of literature-based journal clubs | | | |
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| Elective Modules (select 2 or 3) | | | 5-9 |
| <u>Courses</u> | <u>Credits</u> | <u>Training Program</u> | |
| Current Topics in Biochemistry | 3 | Biochem & Molec Biology | |
| Cancer Cell Biology | 2 | Cancer Cell Biology | |
| Cardiovasc & Respir Biology | 3 | Cellular & Integrative Physiology | |
| Muscle Structure & Function | 2 | Exercise Physiology | |
| Immunol & Microb Pathogenesis | 3 | Immunol & Microb Pathogenesis | |
| Neurobiology | 2 | Neuroscience | |
| Drug Discovery & Development | 3 | Pharmaceut & Pharmacol Sci | |
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| Research Laboratory Rotations (2nd & 3rd) | | | 2 |
| January 11 to February 26; March 1 to April 16 | | | |
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| TOTAL CREDITS | | | 10-14 |

Summer Semester after Second Year

| <u>Courses</u> | <u>Credit Hours</u> |
|---------------------------|-----------------------|
| Scientific Writing | 2, S/U |
| Research | 4 each session |
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| TOTAL CREDITS | 6 |