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| Name: Click or tap here to enter text. | UWM ID: Click or tap here to enter text. |

**FIRST YEAR**

BioSci Faculty Advisor: Dr.

University of Wisconsin Milwaukee

Major in Biological Science  
Cell & Molecular Biology (CMB)Option

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| **FALL**   1. *Example: BioSci150 - 4 cr* 2. Click or tap here to enter text. 3. Click or tap here to enter text. 4. Click or tap here to enter text. 5. Click or tap here to enter text.   BioSci Total Credit  BioSci >300 level | **SPRING**   1. Click or tap here to enter text. 2. Click or tap here to enter text. 3. Click or tap here to enter text. 4. Click or tap here to enter text. 5. Click or tap here to enter text.   BioSci Total Credit  BioSci >300 level |

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| **Requirements** |
| * 34 BioSci credits (150, 152 are the only 100-level course that count toward the major) |
| * 4 lab courses total (including 150, 152, plus gateway and elective courses with laboratory components) |
| * At least 26 credits in BioSci courses number 300 or greater |
| * At least 2.0 GPA in BioSci courses for major |
| * At least 3.75 GPA in BioSci courses for honors in the major |

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| **FOUNDATIONS:** Required for all majors. Take sequentially. | | |
| BioSci 150 | BioSci 152 | BioSci 325 |

**REQUIRED GATEWAY COURSES:**

**SOPHMORE YEAR**

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| |  |  | | --- | --- | | BioSci 315 | BioSci 316 | | |
| **RESEARCH REQUIREMENT:** Take at least one | | |
| **\***BioSci 670 | BioSci 697 | |
| BioSci 672 |  | |

**\***If section is offered by a CMB faculty/staff member

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| **CHEMISTRY COURSES:** Take both Gen Chem courses. Chose Sequence I or II of Organic Chem. | | |
| **Gen Chem:** | **Organic Chem:** | |
| Chem 102 | **Sequence I or Sequence II** | |
| Chem 104 | Chem 341 | Chem 343 |
|  | Chem 342 | Chem 344 |
|  |  | Chem 345 |

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| **MATH REQUIREMENTS:** Take at least one semester of Calculus (Math 211, 213, 221, or 231). The 2nd semester of math may be fulfilled by Math 232, BioSci 465 or MthStat 215. | | | | | | |
| Calculus \_\_\_\_\_\_\_\_\_\_\_\_\_ | | | \_\_\_\_\_\_\_\_\_\_\_\_\_ | | | |
| **PHYSICS:** Choose one sequence | | | | | |
| **Sequence I: or Sequence II: or Sequence III:** | | | | | |
| Lecture | Lab (at least one) | Lecture | | Lab (at least one) | Combined |
| Phys 120 | Phys 121 | Phys 209 | | Phys 214 | Phys 219 |
| Phys 122 | Phys 123 | Phys 210 | | Phys 215 | Phys 220 |

**GENERAL EDUCATION REQUIREMENTS**

**JUNIOR YEAR**

See L&S advisor for additional L&S/University requirements for   
the degree pathway.

**Faculty Advisor’s Notes/Comments:** Click or tap here to enter text.

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| **FALL**   1. Click or tap here to enter text. 2. Click or tap here to enter text. 3. Click or tap here to enter text. 4. Click or tap here to enter text. 5. Click or tap here to enter text.   BioSci Total Credit  BioSci >300 level | **SPRING**   1. Click or tap here to enter text. 2. Click or tap here to enter text. 3. Click or tap here to enter text. 4. Click or tap here to enter text. 5. Click or tap here to enter text.   BioSci Total Credit  BioSci >300 level |

**SENIOR YEAR**

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| **FALL**   1. Click or tap here to enter text. 2. Click or tap here to enter text. 3. Click or tap here to enter text. 4. Click or tap here to enter text. 5. Click or tap here to enter text.   BioSci Total Credit  BioSci >300 level | **SPRING**   1. Click or tap here to enter text. 2. Click or tap here to enter text. 3. Click or tap here to enter text. 4. Click or tap here to enter text. 5. Click or tap here to enter text.   BioSci Total Credit  BioSci >300 level |

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| **FALL**   1. Click or tap here to enter text. 2. Click or tap here to enter text. 3. Click or tap here to enter text. 4. Click or tap here to enter text. 5. Click or tap here to enter text.   BioSci Total Credit  BioSci >300 level | **SPRING**   1. Click or tap here to enter text. 2. Click or tap here to enter text. 3. Click or tap here to enter text. 4. Click or tap here to enter text. 5. Click or tap here to enter text.   BioSci Total Credit  BioSci >300 level |

**TOTALS:**

BioSci Total Credit BioSci >300 level

***Revised: 6/27/23***

**Fall Semester Courses**

**Spring Semester Courses**

**Course (cr) Course Name**

BioSci 150 (4) Foundations of Bio Sciences I **(L,N,Su)**

BioSci 152 (4) Foundations of Bio Sciences I **(L,N,Su)**

BioSci 203 (4) Anatomy & Physiology II **(L,N,Su)**

BioSci 315 (3) Cell Biology **(N)**

BioSci 316 (2) Lab in Genetics & Cell Bio **(L,N)**

BioSci 325 (4) Genetics **(N,Su)**

BioSci 335 (3) Mammalian Reproductive Biology

BioSci 383 (4) General Microbiology **(L)**

BioSci 455 (3) Cell/Molecular/Developmental Neurobiology **(N)**

BioSci 489 Internship Bio Sci Upper**\***

BioSci 500 (3) Plant Physiology

BioSci 529 (3) Molecular Biology of Microorgansims

BioSci 544 (3) Trans Electron Microscopy Lab **(L,N)**

BioSci 566 (3) Cell Biology of Human Disease **(N)**

BioSci 572 (3) Functional Genomics **(N)**

BioSci 580 (4) Experimental Microbiology **(L)**

**CMB MAJOR IN BIOLOGICAL SCIENCES - COURSES BY SEMESTER**

**Course (cr) Course Name**

BioSci 150 (4) Foundations of Bio Sciences I **(L,N,Su)**

BioSci 152 (4) Foundations of Bio Sciences I **(L,N,Su)**

BioSci 203 (4) Anatomy & Physiology II **(L,N,Su)**

BioSci 315 (3) Cell Biology **(N)**

BioSci 316 (2) Lab in Genetics & Cell Biology **(L,N)**

BioSci 325 (4) Genetics **(N,Su)**

BioSci 356 (3) Developmental Biology **(N)**

BioSci 370 (3) Mammalian Physiology **(N)**

BioSci 383 (4) General Microbiology

BioSci 401 (3) Immunology

BioSci 405 (3) General Virology

BioSci 489 Internship Bio Sci Upper**\***

BioSci 490 (3) Molecular Genetics **(N,1)**

BioSci 498 (3) Genetics of Development & Cancer

BioSci 501 (3) Aquatic & Plant Ecophysiology Lab **(L,3)**

BioSci 535 (3) Bacterial Pathogenesis

BioSci 539 (4) Lab Techniques Molecular Biology **(L,N)**

BioSci 540 (3) Microbial Diversity

BioSci 542 (3) Biological Electron Microscopy **(N)**

BioSci 543 (2) Scan Electron Microscopy Lab **(L,N)**

BioSci 564 (3) Endocrinology **(N,3)**

BioSci 565 (3) Gene Regulation in StemCells & Regeneration **(N,2)**

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| **Pre-Requisites** | |
| BioSci 150 Foundation of Biological Sciences I, *(P: Chem 100(P) or 102(P) or conc reg)*  BioSci 152 Foundation of Biological Sciences II, *(P: C or better in BioSci 150(P))*  BioSci 203 Anatomy & Physiol *(P: 202 or 315)*  BioSci 315 Cell Biology, *(P: C or better in BioSci 152(P) & Chem 104(P)*  BioSci 316 Lab in Genetics & Cell Biol *(P: 152 & Chem 104, Bio 315 or 325)*  BioSci 325 Genetics *(P: 150; 152 or 203; Chem 104)*  BioSci 335 Mammalian Repro Biol *(C or better in 315(P); cons. istr.)*  BioSci 356 Developmental Biology *(P: 315 or 325)*  BioSci 370. Mammalian Physiology *(P: 315)*  BioSci 383 Microbiology *(a grade of C or better in BioSci 152(P); BioSci 325(C) or cons. of istr.; Chem 341(C) or Chem 343 (C))*  BioSci 401 Immunology *(jr st; grade of C or better in BioSci 315(P) or 325(P); Chem 341(P) or 343(P); or cons instr.)*  BioSci 405 General Virology *(jr st; BioSci 325(P); BioSci 315(P) or 383(P); Chem 501(R))*  BioSci 455 Cellular, Molecular & Developmental Neuro, credits *(P: jr st; C or better in BioSci 315(P))* | \*BioSci 489 Internship in Biological Science, Upper division *(jr st; 300-level or above course in Bio Sci; 2.50 gpa; consent of supervising faculty member)*  BioSci 490 Molecular Genetics *(P: Jr st, 325; 315 & 316)*  BioSci 498 Genetics of Development & Cancer *(jr. st. and a grade of C or better in BioSci 325(P))*  BioSci 501 Aquatic & Plant Ecophysiology Lab *(jr st; BioSci 325(P) or 310(P))*  BioSci 529 Mol Bio of Microorg *(jr. st., 383 (P))*  BioSci 535 Bacterial Path *(jr st, C or better in BioSci 383(P))*  BioSci 539 Lab Tech in Molec Biol *(P: jr st, 315 or 325)*  BioSci 542 Electron Microscopy *(P: Jr st, 315 & 316)*  BioSci 543 Scanning Electron Microscopy Lab *(P: Jr st; 542 & consent)*  BioSci 544 Transmission Electron Micro Lab *(P: Jr st, 542, consent)*  BioSci 564 Endocrinology *(P: Jr st, 315, Chem 103/341/343)*  BioSci 565 Gene Regulation in Stem Cells and Regeneration *(P: Jr st, 315 or 325)*  BioSci 566 Cell Biology of Human Disease *(P: Jr st, 315)*  BioSci 572 Functional Genomics *(P: Jr st, 325)*  BioSci 580 Experimental Micro *(jr st, BioSci 383(P))*  BioSci 672 Undergraduate Seminar in Cell & Molecular Biol *(P: Sr st; BioSci 315(P) & 316(P))*  BioSci 697 Independ. Study in Cell & Molec. Biol *(P: jr st; BioSci 315(P) & 316(P); 2.5 gpa;* consent of supervising faculty member*)* |

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| **Abbreviations** | |
| **(L)** Course will count toward the four-lab requirement  **(N)**  Counts for Neuroscience Double Major  **(Su)** Courses that are also offered in the summer | **(1)** Course typically offered odd years  **(2)** Course typically offered even years  **(3)** Course offered irregularly |