

Molecular Biology Fall 2017 Courses

Level: E=Elementary, I=Intermediate, A=Advanced (L&S Students need at least 60 credits of I/A)

Be sure to check your DARs and pre-requisites!

Schedule an appointment with the MolBio Advisor

| Course Number | Credits | Level | Course Title |
|--------------------------|---------|-------|--------------------------------------------------------------|
| I.Math/Statistics | | | |
| Math 211 | 5 | I | Calculus (Lec/Disc) |
| Math 221 | 5 | I | Calculus & Analytic Geometry I (Lec/Disc) |
| Math 213 | 3 | I | Calculus & Intro to Differential Equations (Lec/Disc) |
| Math 222 | 4 | I | Calculus & Analytic Geometry II (Lec/Disc) |
| Statistics 301 | 3 | I | Introduction to Statistical Methods (Lec/Disc) |
| Statistics 371 | 3 | I | Introductory Applied Statistics for Life Sciences (Lec/Disc) |

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| II.Introductory Chemistry | | | |
| Chemistry 103 | 4 | E | General Chemistry I (Lec/Lab/Disc) |
| Chemistry 104 | 5 | E | General Chemistry II (Lec/Lab/Disc) |
| Chemistry 109 | 5 | E | Advanced General Chemistry (Lec/Lab/Disc) |
| Chemistry 115 | 5 | I | Chemical Principles I (Lec/Lab/Disc) |

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| Organic/Analytical Chemistry | | | |
| Chemistry 343 | 3 | I | Introductory Organic Chemistry (Lec/Disc) |
| Chemistry 344 | 2 | I | Introductory Organic Chemistry Lab (Lab/Disc) |
| Chemistry 345 | 3 | I | Intermediate Organic Chemistry (Lec/Disc) |
| Chemistry 327 | 4 | I | Fundamentals of Analytical Science (Lec/Lab/Disc) |
| Chemistry 329 | 4 | I | Fundamentals of Analytical Science (Lec/Lab/Disc) |

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| III>Physics | | | |
| Physics 201 | 5 | I | General Physics (Lec/Lab/Disc) |
| Physics 202 | 5 | I | General Physics (Lec/Lab/Disc) |
| Physics 207 | 5 | I | General Physics (Lec/Lab/Disc) |
| Physics 208 | 5 | I | General Physics (Lec/Lab/Disc) |

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| IV.Introductory Biology & Genetics | | | |
| Biology/Botany/Zoology 151 | 5 | E | Introductory Biology I (Lec/Lab/Disc) |
| Biology/Botany/Zoology 152 | 5 | E | Introductory Biology II (Lec/Lab/Disc) |
| Genetics 466 | 3 | I | Principles of Genetics (Lec) |

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| Biochemistry | | | |
| Biochemistry 501 | 3 | A | Introduction to Biochemistry (Lec) |
| Biochemistry 507 | 3 | A | General Biochemistry I (Lec) |

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| Molecular Biology | | | |
| Agronomy/Horticulture 339 | 4 | I | Plant Biotechnology: Principles and Techniques I (Lec) |
| Biochem/ Genetics/ Microbio 612 | 3 | I/A | Prokaryotic Molecular Biology (Lec) |
| Genetics 545 | 2* | A | Genetics Laboratory (Lab) |

*at least 3 credits required to complete the Molecular Biology requirement

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| V. Advanced Courses | 6 or more credits from at least 2 categories | | |
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| Development | | | |
| NTP/ Zoology 555 | 3 | I/A | Laboratory in Developmental Biology (Lab) |

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| Microbiology | | | |
| Microbiology 303 | 3 | I | Biology of Microorganisms |
| Microbiology 304 | 2 | I | Biology of Microorganisms Lab (Lab) |
| Microbiology 622 | 3 | A | Plant-Bacterial Interactions (Lec) |
| Microbio/ Oncology/ Plant Path 640 | 3 | I/A | General Virology-Multiplication of Viruses (Lec) |

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| Genetics | | | |
| Genetics/ Med Genetics 565 | 3 | I | Human Genetics (Lec) |
| Microbiology 470 | 3 | I | Microbial Genetics & Molecular Machines |

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| Cell Biology | | | |
| Biochem/ Phmacol-M/ Zool 630 | 3 | I/A | Cellular Signal Transduction Mechanisms (Lec) |
| Microbio/ MM&I/ Path-Bio 528 | 3 | I | Immunology (Lec) |
| Psych/ Zool 523 | 3 | I | Neurobiology (Lec/Disc) |
| Oncology 401 | 2 | I | Introduction to Experimental Oncology (Lec) |
| Oncology 640 | 3 | I/A | General Virology-Multiplication of Viruses (Lec) |
| MM&I 341 | 3 | I | Immunology (Lec/Disc) |
| Zoology 570 | 3 | I | Cell Biology (Lec/Disc) |

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| Biochemistry and Physical Chemistry | | | |
| Biochemistry/ Nutri Sci 510 | 3 | A | Biochemical Princ of Human and Animal Nutrition (Lec) |
| Biochemistry 551 | 4 | A | Biochemical Methods (Lec/Lab) |
| Chemistry 561 | 3 | A | Physical Chemistry (Lec/Disc) |
| Chemistry 565 | 4 | A | Biophysical Chemistry (Lec/Disc) |

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| Quantitative and Computation Sciences | | | |
| BMI/ Comp Sci 576 | 3 | A | Introduction to Bioinformatics (Lec) |
| F&W Ecol/Hort/Stat 571 | 4 | I | Statistical Methods for Bioscience I (Lec/Disc) |
| Statistics 333 | 3 | A | Applied Regression Analysis (Lec/Disc) |
| Statistics/ BMI 541 | 3 | I | Introduction to Biostatistics (Lec/Disc) |

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| VI. Lab /Research Requirement | | | |
| Biochemistry 551 (was 651) | 4 | A | Biochemical Methods* (Lec/Lab) |
| Genetics 545 | 2 | A | Genetics Lab (Lab) |
| Microbiology 304 | 2 | I | Biology of Microorganisms Lab |
| Zoology 555 | 3 | I/A | Laboratory in Developmental Biology (Lab) |
| Molecular Biology 681 | 3 | A | Senior Honors Thesis I (Ind) |
| Molecular Biology 682 | 3 | A | Senior Honors Thesis II (Ind) |
| Molecular Biology 691 | 3 | A | Senior Thesis I (Ind) |
| Molecular Biology 692 | 3 | A | Senior Thesis II (Ind) |
| Molecular Biology 699 | 1-4 | A | Directed Studies (Ind) |

*Priority given to Biochemistry majors. Contact Dr. Lynne Prost if interested.