

Course Name	Faculty Qualifications Needed	Related Disciplines	Acceptable Alternative Qualifications
BIOL 5010 Graduate Seminar I	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biological Sciences, Molecular Biology, Genetics, Biochemistry,	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Biological Sciences related fields.
BIOL 5020 Graduate Seminar II	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biological Sciences, Molecular Biology, Genetics, Biochemistry	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Biological Sciences related fields.
BIOL 5070 Methods of Teaching Science in the College/University Setting	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biology Education, STEM Education, Science Education	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Biology Sciences, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Science Education related fields.
BIOL 5080 Methods of Teaching Science in the College/University Setting	Earned Doctorate degree in Biology Sciences in the teaching discipline or a closely related discipline.	Biology Education, STEM Education, Science Education	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Biology Sciences, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Science Education related fields.
BIOL 5100 Literature and Methods in Research	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biology Education, STEM Education, Science Education	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Biological Sciences related fields.
BIOL 5110 Research in Biology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biological Sciences, Molecular Biology, Genetics, Biochemistry	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Biological Sciences related fields.
BIOL 5120 Thesis Writing	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biological Sciences, Molecular Biology, Genetics, Biochemistry	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Biological Sciences related fields.
BIOL 5130 Evolution	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Evolutionary Genetics, Paleontology, Evolution Biology, Zoology	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Evolutionary Biology or Zoology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Evolutionary Biology related fields.
BIOL 5140 Special Problems I	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biological Sciences, Molecular Biology, Genetics, Biochemistry	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Biological Sciences related fields.
BIOL 5150 Special Problems II	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biological Sciences, Molecular Biology, Genetics, Biochemistry	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Biological Sciences related fields.
BIOL 5160 Environmental Genetics	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Genetics and Genomics, Environmental Genetics, Molecular Genetics, Epidemiology	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Environmental Genetics or Molecular Genetics, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Environmental Genetics related fields.

BIOL 5170 Advanced Genetics	Earned Doctorate degree in Molecular Genetics or Genetics and Genomics in the teaching discipline or a closely related discipline.	Genetics and Genomics, Environmental Genetics, Molecular Genetics, Epidemiology	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Molecular Genetics or Genetics and Genomics, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Molecular Genetics related fields.
BIOL 5180 Cell Biology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biochemistry, Genetics, Cell Biology, Molecular Biology, Biomedical Sciences	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Cell Biology or Molecular Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Cell Biology related fields.
BIOL 5190 Ecology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Wildlife Ecology, Marine Ecology, Environmental Science, Conservation Biology	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Environmental Science or Conservation Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Environmental Science related fields.
BIOL 5200 General Physiology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Human Physiology, Biomedical Sciences, Physiology, Molecular Physiology, Anatomy and Physiology	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Physiology or Molecular Physiology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Physiology related fields.
BIOL 5210 Embryology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Molecular Biology, Genetics, Biomedical Sciences, Embryology, Reproductive Biology	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Embryology or Reproductive Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Embryology related fields.
BIOL 5220 Advanced Parasitology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Medical Pathology, Molecular Parasitology, Parasitology, Infectious Diseases, Biomedical Sciences, Epidemiology	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Parasitology or Infectious Diseases, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Parasitology related fields.
BIOL 5230 Arthropods and Diseases	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Zoology, Tropical Parasitology, Vector Biology, Entomology, Epidemiology	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Entomology or Parasitology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Entomology related fields.
BIOL 5240 Systemic Physiology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Human Physiology, Anatomy and Physiology, Pharmacology, Physiology, Biomedical Sciences	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Physiology or Biomedical Sciences, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Physiology related fields.
BIOL 5300 Plant Physiology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Crop Science, Molecular Plant Biology, Agriculture, Plant Biotechnology, Plant Physiology, Botany	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Plant Physiology or Botany, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Plant Physiology related fields.

BIOL 5400 Microbial Genetics	Earned Doctorate degree in Microbial Genetics or Molecular Genetics in the teaching discipline or a closely related discipline.	Genetics and Genomics, Molecular Biology, Microbiology, Epidemiology	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Microbial Genetics or Molecular Genetics, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Microbial Genetics related fields.
BIOL 5410 Molecular Genetics	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Genetics, Genomics, Molecular Biology, Molecular Genetics, Epidemiology	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Molecular Genetics or Genetics and Genomics, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Molecular Genetics related fields.
BIOL 5460 Immunology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Molecular Immunology, Biomedical Sciences, Immunology or Microbiology	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Immunology or Microbiology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Immunology related fields.
BIOL 5470 Special Topics in Immunology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Molecular Immunology, Biomedical Sciences, Immunology or Microbiology	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Immunology or Microbiology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Immunology related fields.
BIOL 6040 Individual Studies	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Microbiology, Molecular Genetics, Genetics and Genomics	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Biological Sciences related fields.
BIOL 6100 Frontiers in Molecular Science	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Molecular Genetics, Genetics and Genomics, Biotechnology, Molecular Biology or Biochemistry, Bioinformatics	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Molecular Biology or Biochemistry, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Molecular Biology related fields.
BIOL 6110 Individual Research	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Molecular Genetics, Genetics and Genomics, Biotechnology, Molecular Biology or Biochemistry, Bioinformatics	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Biological Sciences related fields.
BIOL 6150 Genomics	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Molecular Genetics, Genetics and Genomics, Biotechnology, Molecular Biology or Biochemistry, Bioinformatics, Computational Biology	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Genetics and Genomics or Computational Biology and Bioinformatics, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Genetics and Genomics related fields.
BIOL 6210 Introduction to Neuropharmacology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Neuroscience, Biomedical Sciences, Neuropharmacology or Pharmacology	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Neuropharmacology or Pharmacology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Neuropharmacology related fields.
BIOL 6560 Techniques of Electron Microscopy	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biophysics, Microbiology, Molecular Biology, Material Science and Engineering, Cell Biology, Biological Sciences	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Cell Biology or Biological Sciences, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Cell Biology related fields.

BIOL 7010 Seminar in Biology I	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biological Sciences, Molecular Biology, Genetics, Biochemistry,	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Biological Sciences related fields.
BIOL 7020 Seminar in Biology II	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biological Sciences, Molecular Biology, Genetics, Biochemistry,	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Biological Sciences related fields.
BIOL 7120 Molecular Biology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biological Sciences, Molecular Biology, Genetics, Biochemistry,	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Biochemistry or Cell Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Molecular Biology related fields.
BIOL 7130 Molecular Genetics	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biological Sciences, Molecular Biology, Genetics, Genomics, Biochemistry	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Molecular Genetics or Genetics and Genomics, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Molecular Genetics related fields.
BIOL 7170 Selected Topics in Molecular Genetics	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biological Sciences, Molecular Biology, Genetics, Genomics, Biochemistry	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Molecular Genetics or Genetics and Genomics, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Molecular Genetics related fields.
BIOL 7180 Advanced Cell Biology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biochemistry, Genetics, Cell Biology, Molecular Biology	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Cell Biology or Molecular Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Cell Biology related fields.
BIOL 7190 Advanced Molecular Biology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biochemistry, Cell Biology, Molecular Biology, Genetics	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Biochemistry or Cell Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Molecular Biology related fields.
BIOL 7260 Neurobiology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Neuropharmacology, Biomedical Sciences, Neurobiology or Neuroscience	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Neurobiology or Neuroscience, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Neurobiology related fields.
BIOL 7270 Selected Topics in Neurobiology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Neuropharmacology, Biomedical Sciences, Neurobiology or Neuroscience	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Neurobiology or Neuroscience, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Neurobiology related fields.
BIOL 7410 Selected Topics in Microbiology	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Microbiology, Virology, Microbiology, Molecular Genetics	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Microbiology or Molecular Genetics, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Microbiology related fields.

BIOL 8110 Dissertation Research	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Molecular Biology, Molecular Genetics, Biomedical Sciences, Cell Biology, Biochemistry	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Biological Sciences or Biomedical Sciences, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Biological Sciences related fields.
BIOL 6270 Cell Metabolism	Earned Doctorate degree in Biology in the teaching discipline or a closely related discipline.	Biochemistry, Physiology, Biomedical Sciences, Cell Biology	Acceptable alternative qualifications include substantial professional experience (e.g., publications, awards) in Cell Biology or Molecular Biology, relevant professional licensure/certifications, and notable scholarly work such as published articles or conference presentations in Cell Biology related fields.