

MOLECULAR BIOLOGY & INTERDISCIPLINARY LIFE SCIENCES
GRADUATE PROGRAM (MOLB-ILS)
GRADUATE MINOR REQUIREMENTS

To: Student's Dean

Date: _____

Student Name: _____ **Banner ID:** _____

Email: _____ **Phone:** _____

Advisor Name & Dept.: _____

I have completed the following courses, which satisfy the requirements for a GRADUATE minor in MOLB-ILS.

It is mandatory you provide a copy of this form, with applicable signatures, to the MOLB-ILS office (361 Chemistry Bldg.).

Successful completion of the minor will be certified by the MOLB-ILS Program. A grade of "B" or better is required of all minor courses. **(Please attach a copy of your transcript with all completed courses – thank you.)**

COURSE	CREDITS
TOTAL	

- See Minor Requirements Attached

STUDENT NAME: _____
ADVISOR NAME: _____

(Attach Transcript)

GRADUATE MINOR
MOLECULAR BIOLOGY & INTERDISCIPLINARY LIFE SCIENCES
GRADUATE PROGRAM (MOLB-ILS)

This program consists of a minimum of 10 credit hours including:

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|----------------------------------------------------------------------|-----------|
| • MOLB 545 Molecular and Biochemical Genetics, | 3 credits |
| • MOLB 590 Research seminar, | 1 credit |
| • MOLB 520 Molecular Cell Biology, <u>OR</u> MOLB 542 Biochemistry I | 3 credits |
| • Any Tier II course or Core Course, | 3 credits |

A minimum grade of B is required in all courses. At least one member of the student's Graduate Committee must be a faculty member approved as a MOLB-ILS active participant (see Graduate Catalog listing of faculty under MOLB-ILS).

Tier II Courses

At least 9 credits are required of all students from the following list of courses:

AGRO /HORT /MOLB	Plant Genetics	3 Credits
506AGRO 516	Molecular Analysis of Complex Traits Plant	3 Credits
AGRO/HORT 531	Physiology: Growth and DevelopmentPlant	3 Credits
AGRO/ HORT/ MOLB 685	Genetic Engineering	3 Credits
ANSC 602	Advanced Reproductive Physiology	3 Credits
ANSC 602L	Molecular Techniques in Reproductive Physiology	2 Credits
ANSC 621	Metabolic Functions and Dysfunctions	3 Credits
BCHE 546 / MOLB 546	Biochemistry II	3 Credits
BCHE 645	Nucleic Acid Metabolism	3 Credits
BCHE 647	Physical Biochemistry	3 Credits
BCHE 648	Proteins and Enzymes	3 Credits
BIOL 451	Physiology of Microorganisms	3 Credits
BIOL 470	Developmental Biology	3 Credits
BIOL 474	Immunology	3 Credits
	Virology	3 Credits

BIOL 477	Applied and Environmental Microbiology	4 Credits
BIOL 478	Molecular Biology of Microorganisms (offered fall only)	3 Credits
BIOL 482	Molecular Systematics	3 Credits
BIOL 490	Neurobiology	3 Credits
BIOL 520 / MOLB 520	Discussions in Molecular Biology	1 Credit
BIOL 523	Mechanisms of Microbial Pathogenicity	3 Credits
BIOL 540 / MOLB 540	Science and Ethics or equivalent (typically offered in spring)	1 - 3 Credits
BIOL 541	Professional Development Seminar	1 Credit
BIOL 541	Advanced Genetic Aspects of Population Biology	3 Credits
BIOL 550	Molecular Biology of Disease Vectors - with committee/instructor consent or equivalent	3 Credits
BIOL 550	Genomics Techniques in Life Sciences -Dr. Xu	3 Credits
BIOL 550	Bioinformatics Applications & Databases - Dr. Xu	3 Credits
BIOL 577	Adv. Topics Environmental Microbiology	3 Credits
BIOL 590	Neuroscience - special topics	1 – 3 Credits
BIOL 591	Principles of Confocal Microscopy	1 Credit
BIOL 592	Microscopy Practicum	1 – 3 Credits
BIOL 698	Selected Topics	1 – 3 Credits
CHEM 516	Advanced Organic Chemistry I, Physical Organic Chemistry	3 Credits
CHEM 517	Advanced Organic Chemistry II, Synthetic Organic Chemistry	3 Credits
EPWS 486	Plant Virology	3 Credits
GENE 486	Genes and Genome	3 Credits
MOLB 450	Special Topics in Molecular and Cellular Biology	1 - 3 Credits
MOLB 452	Independent Studies in Bioinformatics	1 - 3 Credits
MOLB 470	Genome Analysis and Bioinformatics, or equivalent	1 - 3 Credits
MOLB/AGRO/HORT 506	Plant Genetics	1 - 3 Credits
MOLB 520 / BIOL 520	Discussions in Molecular Biology	1 Credit
MOLB 530	Plant Physiology: Metabolism	3 Credits
MOLB 540 / BIOL 540	Science and Ethics, or equivalent	1 - 3 Credits
MOLB 546 / BCHE 546	Biochemistry II	3 Credits
MOLB 550	Special Topics in Molecular Biology – with committee/instructor consent or equivalent	1 - 3 Credits
MOLB 571	Molecular and Cellular Mycology	3 Credits
MOLB 590	Discussions in Molecular Biology	1 Credit
MOLB 599	(6 Thesis Research Credits)	6 Credits

MOLB 650

Advanced Topics in Molecular Biology

1 - 3 Credits

(Revised: 08/2019)