Biological Sciences: Microbiology MICB (0404D)

effective August 2020

A minimum of 120 credits earned and a 2.0 cumulative GPA is needed to meet University graduation requirements.
Major courses (Basic, Supporting, and Advanced) require a C– or better in each and a 2.0 average GPA.

1. Basic Program 15-16 credits

Sem	Gr	Cr	
		3	BSCI160 Ecology and Evolution ∗
		1	BSCI161 Ecology and Evolution Lab ∗
		3	BSCI170 Molecular and Cellular Biology ∗
		1	BSCI171 Molecular and Cellular Biology Lab ∗
		3	BSCI207 Principles of Biology III ∗
		4	BSCI222 Principles of Genetics ∗
		1	Freshmen seminar: UNIV100[1], HONR100, GEMS100, HLSC100, HACS100[2], HDCC105[2], HEIP143, HHUM105[3], BSCV181, IDEA101, BSGC100

[1] All Biological Sciences majors must take UNIV100 or another approved freshman seminar from the list above in their first semester.
[2] Two credit course. [3] Three credit course.
NOTE: Students who are enrolled in the Integrated Life Sciences Honors program will complete the following courses in lieu of the parenthetical course: HLSC207 (BSCI207), HLSC322 (BSCI222) and HLSC374 (BSCI374).
∗ These are required benchmark courses, see: http://bsci.umd.edu/benchmarks

2. Supporting Courses 32 credits

Sem	Gr	Cr	
		4	MATH135 Discrete Mathematics ∗
		4	MATH136 Calculus ∗ **OR**
		4	MATH140 Calculus I ∗
		4	MATH141 Calculus II ∗ **OR**
		4	MATH140 Calculus I ∗
		4	MATH135 Discrete Mathematics ∗
		3	CHEM131 General Chemistry I ∗
		1	CHEM132 General Chemistry I Lab ∗
		3	CHEM231 Organic Chemistry I ∗
		1	CHEM232 Organic Chemistry I Lab ∗
		3	CHEM241 Organic Chemistry II ∗
		1	CHEM242 Organic Chemistry II Lab ∗
		2	CHEM271 Gen Chem & Energetics ∗
		2	CHEM272 Bioanalytical Chem Lab ∗
		4	PHYS131 OR PHYS141 Physics I
		4	PHYS132 OR PHYS142 Physics II

3. General Education Requirements (at least 27 credits)

(For more information on General Education visit: www.gened.umd.edu.)
Fundamental Studies Math (MA), Analytic Reasoning (AR), Natural Sciences (NS) & Natural Sci. Lab (NL) are satisfied by major requirements.
Courses may double or triple count between Distributive Studies, I-Series, and Diversity.

Sem	Gr	Course	
			Fundamental Studies
			Academic Writing (AW) (ENGL101)
			Professional Writing (PW)
			Oral Communication (OC)
			Distributive Studies
			History and Social Sciences (HS)
			History and Social Sciences (HS)
			Humanities (HU)
			Humanities (HU)
			Scholarship in Practice (SP)
			Scholarship in Practice (SP) outside major
			I-Series
			I-Series (IS)
			I-Series (IS)
			Diversity
			Understanding Plural Societies (UP)
			Understanding Plural Societies (UP) **or** Cultural Competence (CC) (1–3 credits)

Summary of credits	
Required	Completed
Basic Program (15–16)	_____
Supporting Courses (32)	_____
Gen. Ed. (27+)	_____
Advanced Program (27)	_____
Elective	_____
Subtotal	_____
Duplicate credits	_____
(Subtract from subtotal)	
Total Credits	_____

4. Advanced Program courses: Please see reverse page.

NOTES:

Student name _____ UID _____

Advisor's signature _____ Date of audit _____

NOTE: The curriculum in Biological Sciences changes as faculty review and improve the program. The curriculum descriptions provided here are the latest versions. Your curriculum may look slightly different depending on when you declared the Biological Sciences major. Your academic advisor can provide you with the most accurate information on which curriculum you are under. Any questions can be referred to the Undergraduate Academic Programs Office, 301-405-6892.

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Microbiology MICB (0404D) Advanced Program

27 credits minimum ◆ At least two courses designated as **Lab** must be taken

1. Required courses: 17 credits

Sem	Gr	Cr	
		4	BSCI283 Principles of Microbiology[1]
		4	BSCI412 Microbial Genetics w/**Lab**
		3	BSCI443 Microbial Physiology
			Biochemistry
		3	BCHM461 Biochemistry I and
		3	BCHM462 Biochemistry II
			OR
		3	BCHM463 Biochemistry of Physiology and
		3	BCHM465 Biochemistry III

[1] *or BSCI223 with permission of Undergraduate Program Director*
Students cannot get credit for both BSCI223 and BSCI283.

2. MICB Area courses: 7 credits

- Must include a 300- or 400-level laboratory course

Sem	Gr	Cr		Sem	Gr	Cr	
		4	BSCI411 Bioinformatics and Integrated Genomics w/**Lab**			3	BSCI437 General Virology
		3	BSCI417 Microbial Pathogenesis			3	BSCI348J Medical Microbiology[3]
		3	BSCI422 Principles of Immunology			3	BSCI348M Epidemiology of Microbial Pathogens
		2	BSCI423 Immunology **Lab** [2]			3	BSCI464 Microbial Ecology
		4	BSCI424 Pathogenic Microbiology w/**Lab**[3]				Special Topics Courses[4] BSCI338, BSCI339 or BSCI348
						1	Departmental Honors Seminars[5] BSCI378H and BSCI398H

Total MICB Area credits_____

[2] Requires a "C-" or better in the pre-/co-requisite lecture to count as a **Lab**.
[3] Credit will be given for either BSCI424 OR BSCI348J.
[4] Special Topics courses (BSCI338, BSCI339, or BSCI348) are allowed if specifically approved for upper-level courses in MICB. See Testudo for applicability of specific courses.
[5] One credit of Departmental Honors seminar may be applied to major requirements. Additional Departmental Honors seminar credits count as non-major electives.

3. Enrichment 3 credits Enrichment Course: _____ Credits:_____ Semester:_____ Grade:_____

Minimum 3 credits from any 300- or 400-level BSCI, CHEM, or BCHM course.
Courses from other departments can be used with permission of advisor.
Courses listed in the Advanced Program above can be used if they are not used to satisfy any category above.
Courses counted as Enrichment do not satisfy the 300- or 400-level laboratory requirement.
Independent study or research credits, including H and L versions, are acceptable up to a maximum of 3 credits overall in the Advanced Program.
Multiple semesters in research courses can possibly count for one of the two required lab courses. See your advisor for more details or ter.ps/reslabcredit

Total credits in Advanced Program: _____

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