

BIOL 3702 - Microbiology

Fall 2026 Syllabus, Section 01, CRN 40484,

Credit hours: 3

Instructor

Chester Cooper

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Public Instructor Information

Instructor Title: Professor

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Course Description

3702. Microbiology. Fundamentals of the biology of microbes. The principles of microbial structure, function, reproduction, metabolism, genetics, phylogeny, host-parasite relationships, and immunity. Three hours lecture. Prereq.: BIOL 2601 or BIOL 2603 and concurrent enrollment in BIOL 3702L. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Required	CONNECT Microbiology subscription (McGraw Hill)	Wiley et al.	9781264658626

Must be version that contains the following eBook: *Prescott's Microbiology* (12th ed., copyright 2023; Release 2026). This edition is available via the First Day program at the YSU Bookstore.

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Day	Date	Reading(s)	Proposed Topic	Due/To Prepare for Class
Mon	8/24	Syllabus	Introduction to BIOL 3702	
Wed	8/26	Chapter 1: pages 13-18	The Evolution of Microorganisms and Microbiology	
Fri	8/28	Chapter 1 cont.		
Mon	8/31	Chapter 2: pages 20-25	Microscopy	
Wed	9/2	Chapter 2 cont.		Assessment Quiz I
Fri	9/4	Chapter 3: pages 28-36; Chapter 14: page 148; Chapter 20: page 199.	Bacterial Cell Structure	Quiz 1
Mon	9/7	No Class		
Wed	9/9		Examination I (covers Chapters 1-2)	SmartBook Chapters 1 and 2 Due
Fri	9/11	Chapter 3 cont.		
Mon	9/14	Chapter 3 cont.		
Wed	9/16	Chapter 4: pages 39-43	Archaeal Cell Structure	
Fri	9/18	Chapter 5: pages 46-53	Eukaryotic Cell Structure	
Mon	9/21	Chapter 5 cont.		

Wed	9/23	Chapter 6: pages 56-63	Viruses and Other Acellular Infectious Agents	
Fri	9/25	Chapter 6 cont.		
Mon	9/28	Chapter 7: pages 66-74	Bacterial and Archaeal Growth	Quiz 2 SmartBook Chapters 3 through 6 Due
Wed	9/30	Chapter 7 cont.		Relevance Module Quiz: Microbes and Cancer Due
Fri	10/2	Chapter 8: pages 78-83	Control of Microorganisms in the Environment	
Mon	10/5	Chapter 8 cont.		
Wed	10/7	Chapter 9: pages 86-94	Antimicrobial Chemotherapy	
Fri	10/9	Chapter 9 cont.		
Mon	10/12	Chapter 10: pages 97-106	Introduction to Metabolism	Quiz 3 SmartBook Chapters 7 through 9 Due Relevance Module Quiz: Antibiotic Resistance Due
Wed	10/14	Chapter 10 cont.		
Fri	10/16	Chapter 11: pages 107-115 and 117	Catabolism: Energy Release and Conservation	
Mon	10/19	Chapter 11 cont.		
Wed	10/21	Chapter 11 cont.		
Fri	10/23	Chapter 12: pages 120-125 and 127	Anabolism: The Use of Energy in Biosynthesis	
Mon	10/26	Chapter 12 cont.		Relevance Module Quiz: Fermentation and the Making of Beer Due
Wed	10/28	Chapter 16: pages 159-160 and 162-165		Quiz 4
Fri	10/30	Chapter 16 cont.		
Mon	11/2		Examination II (covers Chapters 3 through 12)	SmartBook Chapters 10 through 12 Due
Wed	11/4	Chapter 27: pages	Microbial Interactions	
Fri	11/6	Chapter 31: pages 279-286	Innate Host Resistance	
Mon	11/9	Chapter 31 cont.		SmartBook Chapters 16 and 27 Due
Wed	11/11	No Class		
Fri	11/13	Chapter 32: pages 289-297 and 299	Adaptive Immunity	Quiz 5
Mon	11/16	Chapter 32 cont.		
Wed	11/18	Chapter 32 cont.		
Fri	11/20	Chapter 43: pages 310-314	Infection and Pathogenicity	Relevance Module Quiz: The Immune System. The Good, The Bad, and the Endless Possibilities Due
Mon	11/23	Chapter 34 cont.		Quiz 6
Wed	11/25	No Class		
Fri	11/27	No Class		
Mon	11/30	Chapter 35: pages 317-324	Epidemiology and Public Health Microbiology	
Wed	12/2	Chapter 35 cont.		Assessment Quiz II Quiz 7 (take home due on December 3rd)
Fri	12/4		Examination III (covers Chapters 16, 27, 31, 32, 34, and 35)	SmartBook Chapters 31, 32, 34, and 35 Due
Mon	12/7	No Class		
Wed	12/9	No Class		
Fri	12/11		OPTIONAL Comprehensive Final Exam	

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