BIOL 3702: Microbiology Lecture Schedule

Disclaimer Notice: Serious effort and consideration were used in formulating this calendar. While viewed as an educational contract between the course instructor and student, unforeseen events may cause changes to the scheduling of lectures, examinations, etc. Every effort will be made NOT to change scheduled items. Nonetheless, the course instructor reserves the right to make any changes deemed necessary to best fulfill the course objectives. Such changes will be announced to registered students in a timely fashion using reasonable means. This disclaimer does not abrogate any student rights granted by the University.

Wednesday, January 19

Introduction to Biology 3702

Friday, January 21

Lecture Topic: The History and Scope of Microbiology I
Assignment: Chapter 1, pages 1-15

Monday, January 24

Lecture Topic: The History and Scope of Microbiology II
Assignment: Chapter 1, pages 1-15

Lecture Topic: The Study of Microbial Structure: Microscopy and Specimen Preparation I
Assignment: Chapter 2, pages 17-34

Wednesday, January 26

Lecture Topic: The Study of Microbial Structure: Microscopy and Specimen Preparation II
Assignment: Chapter 2, pages 17-34

Lecture Topic: Procaryotic Cell Structure and Function I
Assignment: Chapter 3, pages 39-52 and 68-71

eEssay I is available at http://www.as.ysu.edu/~crcooper/eE1(S05).pdf

Friday, January 28

Lecture Topic: Procaryotic Cell Structure and Function II
Assignment: Chapter 3, pages 52-63 and 68-71

Lecture Topic: Eucaryotic Cell Structure and Function I
Assignment: Chapter 4, pages 73-79

eEssay I is due by 10:00 AM.
Monday, January 31

**CPS Unit Practice Session**

**Lecture Topic:** Eucaryotic Cell Structure and Function II  
**Assignment:** Chapter 4, pages 79-86 and 88-91

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Wednesday, February 2

**Quiz I – covers Chapters 1 through 4**

**Lecture Topic:** Microbial Nutrition  
**Assignment:** Chapter 5, pages 93-104

**Term Paper Topics are available at** [http://www.as.ysu.edu/~crcooper/TPT(S05).pdf](http://www.as.ysu.edu/~crcooper/TPT(S05).pdf)

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Friday, February 4

**Lecture Topic:** Microbial Growth  
**Assignment:** Chapter 6, pages 109-112, 114-117, and 118-131

**Take-Home Quiz I (covers Chapters 1 through 7) is available at the following URL:**  
[http://www.as.ysu.edu/~crcooper/THQ1(S05).pdf](http://www.as.ysu.edu/~crcooper/THQ1(S05).pdf)

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Monday, February 7

**Lecture Topic:** Control of Microorganisms by Physical and Chemical Agents  
**Assignment:** Chapter 7, pages 133-146

**Take-Home Quiz I is due by 10:00 AM.**

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Wednesday, February 9

**Quiz II – covers Chapters 5 through 7**

**Lecture Topic:** Metabolism: Energy, Enzymes, and Regulation  
**Assignment:** Chapter 8, pages 149-165

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Friday, February 11

**Examination I (covers Chapters 1 through 7)**

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Monday, February 14

**Lecture Topic:** Metabolism: Energy Release and Conservation I  
**Assignment:** Chapter 9, pages 167-179

**eEssay II is available at** [http://www.as.ysu.edu/~crcooper/eE2(S05).pdf](http://www.as.ysu.edu/~crcooper/eE2(S05).pdf)
Wednesday, February 16

Lecture Topic: Metabolism: Energy Release and Conservation I
Assignment: Chapter 9, pages 179-197

Friday, February 18

Lecture Topic: Metabolism: The Use of Energy in Biosynthesis
Assignment: Chapter 10, pages 199-204 and 209-216

Monday, February 21

Quiz III – covers Chapters 8 through 10
Lecture Topic: Genes: Structure, Replication, and Mutation I
Assignment: Chapter 11, pages 221-234
Term Paper Topic is due by 10:00 AM

Wednesday, February 23

Lecture Topic: Genes: Structure, Replication, and Mutation II
Assignment: Chapter 11, pages 234-247
eEssay II is due by 10:00 AM.

Friday, February 25

Lecture Topic: Genes: Expression and Regulation I
Assignment: Chapter 12, pages 253-260

Monday, February 28

Lecture Topic: Genes: Expression and Regulation II
Assignment: Chapter 12, pages 260-270
Take-Home Quiz II (covers Chapters 8 through 13) is available at the following URL:
http://www.as.ysu.edu/~crcooper/THQ2(S05).pdf

Wednesday, March 2

Lecture Topic: Microbial Recombination and Plasmids I
Assignment: Chapter 13, pages 285-295
Friday, March 4

**Lecture Topic:** Microbial Recombination and Plasmids II
**Assignment:** Chapter 13, pages 295-305

Monday, March 7

**Quiz IV – covers Chapters 11 through 13**

**Take-Home Quiz II Due By 10:00 AM**

**Lecture Topic:** The Viruses: Introduction and General Characteristics
**Assignment:** Chapter 16, pages 349-369

Wednesday, March 9

**Lecture Topic:** The Viruses: Bacteriophages
**Assignment:** Chapter 17, pages 371-385

Friday, March 11

**Examination II (covers Chapters 8 through 13)**

Monday, March 14 through Friday, March 18

**Spring Break – No Classes**

Monday, March 21

**Lecture Topic:** The Viruses: Viruses of Eucaryotes
**Assignment:** Chapter 18, pages 387-407

Wednesday, March 23

**Quiz V – covers Chapters 16 through 18**

**Lecture Topic:** Microbial Taxonomy
**Assignment:** Chapter 19, pages 409-434

Friday, March 25

**Lecture Topic:** The Archaea
**Assignment:** Chapter 20, pages 437-451
Saturday, March 26

**Last Day to Withdraw from Course with a Grade of “W” – All Forms Must Be Completed and Submitted to the Registrar by Noon**

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Monday, March 28

**Lecture Topic:** Bacteria: The Deinococci and Nonproteobacteria Gram Negatives

**Assignment:** Chapter 21, pages 453-471

**Outline of Term Paper is due by 10:00 AM**

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Wednesday, March 30

**Lecture Topic:** Bacteria: The Proteobacteria

**Assignment:** Chapter 22, pages 473-476, 485-494, and 500

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Friday, April 1

**Lecture Topic:** Bacteria: The Low G+C Gram Positives

**Assignment:** Chapter 23, pages 503-518

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Monday, April 4

**Quiz VI – covers Chapters 19 through 24**

**Lecture Topic:** Bacteria: The High G+C Gram Positives

**Assignment:** Chapter 24, pages 521-534

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Wednesday, April 6

**Lecture Topic:** The Fungi (Eumycota), Slime Molds, and Water Molds

**Assignment:** Chapter 25, pages 538-551

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Friday, April 8

**Quiz VII – covers Chapters 25 through 27**

**Lecture Topic:** The Algae

**Assignment:** Chapter 26, pages 553-563

**Lecture Topic:** The Protozoa

**Assignment:** Chapter 27, pages 565-574
Monday, April 11

**Lecture Topic:** Normal Microbiota and Nonspecific Host Resistance I  
**Assignment:** Chapter 31, pages 673-691  
**Examination III (Take-Home, covers Chapters 16 through 27) will be available by 12:00 PM (noon) at the following URL:**  
http://www.as.ysu.edu/~crcooper/Exam3(S05).pdf

Tuesday, April 12

**Take-Home Examination due by 11:00 AM**

Wednesday, April 13

**Lecture Topic:** Normal Microbiota and Nonspecific Host Resistance II  
**Assignment:** Chapter 31, pages 691-702

Friday, April 15

**Lecture Topic:** Specific (Adaptive) Immunity I  
**Assignment:** Chapter 32, pages 705-715

Monday, April 18

**Lecture Topic:** Specific (Adaptive) Immunity II  
**Assignment:** Chapter 32, pages 718-736

Wednesday, April 20

**Lecture Topic:** Medical Immunology  
**Assignment:** Chapter 33, pages 739-751

Friday, April 22

**Quiz VIII – covers Chapters 31 through 33**  
**Final Version of Term Paper is due by 10:00 AM**  
**Lecture Topic:** Pathogenicity of Microorganisms  
**Assignment:** Chapter 34, pages 761-776
Monday, April 25

**Lecture Topic:** Antimicrobial Chemotherapy
**Assignment:** Chapter 35, pages 779-797

**Take-Home Quiz III (covers Chapters 31 through 35) is available at the following URL:**
http://www.as.ysu.edu/~crcooper/THQ3(S05).pdf

Wednesday, April 27

**Lecture Topic:** Selected Human Diseases Caused By Viruses I
**Assignment:** Chapter 38, pages 845-868

Friday, April 29

**Lecture Topic:** Selected Human Diseases Caused By Viruses II
**Assignment:** Chapter 38, pages 868-872

**Take-Home Quiz III due by 10:00 AM**

Monday, May 2

**Lecture Topic:** Selected Human Diseases Caused By Bacteria I
**Assignment:** Chapter 39, pages 875-889

Wednesday, May 4

**Lecture Topic:** Selected Human Diseases Caused By Bacteria II
**Assignment:** Chapter 39, pages 889-910

Friday, May 6

**Lecture Topic:** Selected Human Diseases Caused By Fungi and Protozoa
**Assignment:** Chapter 40, pages 917-934

Monday, May 9

Examination IV [Semi-Comprehensive]: covers the entire semester’s material but emphasizes common principles of microbiology and the material presented in Chapters 31 through 35, and 38 through 40.

**Note:** This examination, to be administered in Room 3022 of Ward Beecher Hall, will begin promptly at 8:00 AM and end no later than 10:00 AM.