



HOMEWOOD-FLOSSMOOR HIGH SCHOOL COURSE SCOPE & SEQUENCE



Semester 1 '11 – '12 Department: Science Course: Honors Microbiology Instructor(s): Dillard and Smith
 This course is aligned to: **College Readiness Standards and/or College Board Standards** Other:

*The Homewood-Flossmoor High School Course Scope & Sequence provides parents and students with a semester-long overview of each class that we offer. **An instructor may alter a course's scope & sequence as needed.** Students are responsible for keeping track of due dates and other pertinent course information in their H-F Student Planners. Parents, please contact your child's teacher by telephone or e-mail to clarify any questions you may have about the scope & sequence of a particular course.*

WEEK	COLLEGE READINESS AND/OR COLLEGE BOARD CONTENT STANDARDS	INSTRUCTIONAL CONTENT	ACTIVITIES, READINGS, LABS, AND/OR ASSIGNMENTS	MAJOR ASSESSMENTS	OTHER
WEEK #1 8/15 – 8/19 First day for students: 8/17	SIId1 SIIe1 SIId5	History of Microbiology	Class Expectations Big Bang Theory	Completion of timeline activity	
WEEK #2 8/22 – 8/26	SIIf1 SIIc4 SIId5 SIIIe3	History of Microbiology	Important People in Microbiology Notes Pond Water Survey	Lab notebook Review of Literature	
WEEK #3 8/29 – 9/2 PLC day: 9/2	SIId6 SIc3 SIId1 SIIf2	History of Microbiology	Cells and cell structure	Cell Membrane Drawing Unit 1 Test	
WEEK #4 9/5 – 9/9 No school: 9/5	SIIf1 SIIf2 SIIf3 SIIf2 SIIf2	Classic Bacterial Identification	Aseptic technique History of Microbiology		



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<p>WEEK #5 9/12 – 9/16 Pep Assembly: 9/16</p>	<p>SIIf1 SIIf2 SIIf3 SIIf2 SIIf2</p>	<p>Classic Bacterial Identification</p>	<p>Structure and function of bacterial cell structure</p> <p>Streaking plate and loop dilution using carrot sample</p>	<p>Lab notebook</p>	
<p>WEEK #6 9/19 – 9/23 PLC day: 9/23</p>	<p>SIIf1 SIIf2 SIIf3 SIIf2 SIIf2</p>	<p>Classic Bacterial Identification</p>	<p>Examine and describe individual bacterial cells by physical characteristics of size, shape & arrangement using fixed slides and carrot sample</p>	<p>Lab notebook</p> <p>Gram stain Spore stain</p>	
<p>WEEK #7 9/26 – 9/30</p>	<p>SIIf1 SIIf2 SIIf3 SIIf2 SIIf2</p>	<p>Classic Bacterial Identification</p>	<p>Metabolic tests for identification</p>	<p>Observation and lab book notes on individual bacteria.</p>	
<p>WEEK #8 10/3 – 10/7 PLC day: 10/7</p>	<p>SIIf1 SIIf2 SIIf3 SIIf2 SIIf2</p>	<p>Classic Bacterial Identification</p>	<p>Using known samples, describe individual bacterial cells by size, shape & arrangement.</p>	<p>Develop identification chart using known bacteria</p>	
<p>WEEK #9 10/10–10/14 No school: 10/10 All School Testing: 10/12</p>	<p>SIIf1 SIIf2 SIIf3 SIIf2 SIIf2</p>	<p>Classic Bacterial Identification</p>	<p>Review bacterial identification</p>	<p>Lab Practical in bacterial identification Unit 2 test</p>	
<p>WEEK #10 10/17 –10/21 End of 1st Quarter: 10/21</p>	<p>SIIf1 SIIf2 SIIf2</p>	<p>Microbial Ecology</p>	<p>Identify the environmental conditions suitable to a variety of microbiota.</p>	<p>Build pond in a jar lab book</p>	



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WEEK #11 10/24–10/28 PLC day: 10/28	SIIE1 SIIE2 SIF2	Microbial Ecology	Identify structures in Kingdom Protista Simple stain technique Observe, diagram, and note the habitat, structures, and functions of Protista	Observation of fixed slides of Protista Proper lab book notation	
WEEK #12 10/31 – 11/4 Soph. Plan Test; Parent/ teacher conferences: 11/3 No school: 11/4	SIIE1 SIIE2 SIF2	Microbial Ecology	Identify structures in Algae Observe, diagram and note the habitat, structures, and functions of Algae	Observation of fixed slides of Algae Proper lab book notation	
WEEK #13 11/7 –11/11 No school: 11/11	SIIE1 SIIE2 SIF2	Microbial Ecology	Continue pond jar observations Begin grass seed succession lab	Current lab book notation	
WEEK #14 11/14 –11/18 PLC day: 11/18	SIIE1 SIIE2 SIF2	Microbial Ecology	Build compost bottles for Fungal growth Simple stain techniques Continue grass seed succession	Pond jar observation Lab book	
WEEK #15 11/21 – 11/25 No school: 11/24 &11/25	SIC3 SIF2 SIIF2 SIIF1	Microbial Ecology	Observe, diagram, and note the habitat, structures and functions of Fungi Fungal growth on slides and stain	Succession completion of lab techniques and lab book	
WEEK #16	SIC3	Microbial Ecology	Continue observations of	Test for Unit 3	



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11/29 – 12/2	SIf2 SIIf2 SIIf1		Protista, Algae and Fungi Test review	Lab Practical for Protista, Algae and Fungi	
WEEK #17 12/5 – 12/9 PLC day: 12/9	SIIf1 SIIf2 SIIf3 SIIf2 SIf2	You, Your House & Bacterial Growth	Bacterial Factors that effect bacterial growth and food preservation	Salt and Sugar Lab Temperature Lab Drying Lab	
WEEK #18 12/12 –12/16	SIIf1 SIIf2 SIIf3 SIIf2 SIf2	You, Your House & Bacterial Growth	Bacterial Factors that effect bacterial growth and food preservation	Continue labs and lab book	
WEEK #19 12/19 – 12/23 Winter Break Begins 12/21	SIIf1 SIIf2 SIIf3 SIIf2 SIf2	You, Your House & Bacterial Growth	Review of growth factors	Lab book	
WEEK #20 1/2– 1/6 Classes Resume 1/4	SIf1 SIf2 SIIf1 SIIf3 SIIf2	You, Your House & Bacterial Growth	Review growth factors Review for semester exam	Unit 4 Test	
WEEK #21 1/9 – 1/13 Finals: 1/9 – 1/11 Marking Day: 1/12 Institute Day: 1/13				Final Exam	



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Semester 2 '11 – '12 Department: Science Course: Honors Microbiology Instructor(s): Dillard and Smith
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WEEK #1 1/16 – 1/20 No school: 1/16	SIIf1 SIIf2 SIf2 SIf1 SIIf2 SIIf3	Epidemiology & Noscomial Infection	Chapter 15 PowerPoint Notes History of Health Reading Video & notes		Class discussion
WEEK #2 1/23 – 1/27 PLC day: 1/27	SIIf1 SIIf2 SIf2 SIf1 SIIf2 SIIf3	Epidemiology & Noscomial Infection	Epidemic Bean Lab Video & Notes "Influenza 1918"		Data Collection from epidemic Class discussion of Influenza



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					epidemic & social impact
WEEK #3 1/30 – 2/3	SIII f1 SIII f2 SII f2 SII f1 SIII f2 SIII f3	Epidemiology & Noscomial Infection Virus	Notes on Viral structure Video “Polio: Paralyzing Fear” <ul style="list-style-type: none"> ▪ Characteristics & Classification of virus Viral Replication –	Virus model	Computer research Class discussion of polio and social impact
WEEK #4 2/6 – 2/10 PLC day: 2/10	SIII f1 SIII f2 SII f2 SII f1 SIII f2 SIII f3	Viruses and Cancer oncogenes	Genetic Learning Center Video “And the Band Played On” – History of HIV		Computer research for project; computer lab to utilize PowerPoint
WEEK #5 2/13 – 2/17	SIII f1 SIII f2 SII f2 SII f1 SIII f2 SIII f3	Gene Therapy Role of virus	Genetic Learning Center	Unit Test	Computer Lab
WEEK #6 2/20 – 2/24 No school: 2/20 PLC day: 2/24	SII f1 SII f2 SIII f3	Host Microbe Relationships <ul style="list-style-type: none"> ▪ Koch’s Postulates ▪ Kinds of Disease ▪ Disease Processes 	Notes Video		
WEEK #7	SII f2	Nonspecific (Innate)	PowerPoint Notes		Group Project



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2/27 – 3/2		Host Defenses	Textbook		– Ad Campaign
WEEK #8 3/5 – 3/9 No School: 3/5 Institute Day 3/6	SIIf2	Nonspecific (Innate) Host Defenses		Presentations of Ad Campaign	
WEEK #9 3/12 – 3/16 PLC day: 3/16	SIIf2 SIIe2 SIIe3	Immunology – Specific Immunity & Immunization <ul style="list-style-type: none"> ▪ Karposi’s sarcoma 	PowerPoint Notes Textbook		
WEEK #10 3/19 – 3/23 End of 3 rd Quarter: 3/23	SIIf2 SIIe2 SIIe3	Immunology – Specific Immunity & Immunization		Epidemics and the Impact on Society or Culture Presentation - Individual	
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WEEK #11 4/2 – 4/6 No School: 4/6	SIIf2 SIIe2	Immunology – Specific Immunity & Immunization	Lab – Ag/Ab reactions & pregnancy		Group Project – Construct Ag/Ag Reaction model
WEEK #12 4/9 – 4/13	SIIf1 SIIIf2	Immunology – Specific Immunity &	ELISA Lab		



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PLC day: 4/13	SIIf3	Immunization			
WEEK #13 4/16- 4/20	SIIf1 SIIf2 SIIf3	Immunological Disorders & Tests	Textbook Handout Blood Type Lab		
WEEK #14 4/23 – 4/27 PSAE: 4/24 & 4/25	SIIf1 SIIf2 SIIf3	Immunological Disorders & Tests	Radial Immunodiffusion Test	Unit Test	
WEEK #15 4/30 – 5/4 PLC day: 5/4	SIf1 SIf2 SIIf2 SIIf3 SIIf1 SIIf2	Modeling Proteins	Introduction to protein structure modeling		
WEEK #16 5/7 – 5/11	SIf1 SIf2 SIIf2 SIIf3 SIIf1 SIIf2	Modeling Proteins	Finish protein structure modeling	Protein models	
WEEK #17 5/14 – 5/18 PLC day: 5/18	SIf1 SIf2 SIIf2 SIIf2	Culmination of All Units	Research for Public Service Announcement		Library Computer Lab
WEEK #18 5/21 – 5/25	SIf1 SIf2	Culmination of All Units		Presentation of Public Service	



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Seniors' last day: 5/24	SIIf2 SIIf2			Announcement	
WEEK #19 5/28 – 6/1 No school: 5/28 Final Exams: 5/29 – 5/31 Marking Day: 6/1				Final Exams	