

BIOL 3702 Laboratory Schedule – Fall 2020

(August 1, 2020)

DAY/DATE	SCHEDULED ACTIVITIES [Unless noted, all exercises are to be performed by each student]
Mon. – Thu., Aug. 17 - 20	Introduction to the Microbiology Laboratory <ul style="list-style-type: none"> • Lecture Notes: Introduction to the Microbiology Laboratory • Review of Safety Rules • LearnSmart Lab Exercise: Lab Safety (open)
Friday, Aug. 21	<p style="text-align: center;">Laboratory Liability Waiver Due (Go to Laboratory Liability Web Page for details)</p>
Mon. – Thu., Aug. 24 - 27	<ul style="list-style-type: none"> • Safety Quiz [to be taken before coming to lab; available Aug. 20] • Lecture Notes: Bright-Field Microscopy • Exercise: The Bright-Field Microscope: Its Proper Use and Care • LearnSmart Lab Exercise: Lab Safety (closed – 10AM, Aug. 27)
Mon. – Thu., Aug. 31 – Sep. 3	<ul style="list-style-type: none"> • Pre-Lab Quiz #1 [to be taken before coming to lab; available Aug. 28] • Lecture Notes: Aseptic Transfer and Streak Plate Techniques • Exercise: Basic Culture Technique: Aseptic Transfer • Exercise: Basic Culture Techniques: Streak Plate
Mon., Sep. 7	<p style="text-align: center;">No Laboratory – Holiday</p> <ul style="list-style-type: none"> • Pre-Lab Quiz #2 [to be taken before coming to lab; available Sep. 4] (Note: the deadline for students in Monday lab sections is Thursday, September 10th at 10:00 AM)
Tue., Wed., and Thu., Sep. 8 – 10	<ul style="list-style-type: none"> • Pre-Lab Quiz #2 [to be taken before coming to lab; available Sep. 4] • Lecture Notes: Gram Stain • Exercise: Differential Staining – The Gram Stain • Skills Test I: Microscopy Proficiency • Skills Test II: Streak Plate Proficiency • LearnSmart Lab Exercise: Staining (open for all lab sections)
Mon., Sep. 14	<ul style="list-style-type: none"> • Lecture Notes: Gram Stain • Exercise: Differential Staining – The Gram Stain • Skills Tests I and II Due for Tue., Wed., and Thu. labs
Tue. – Thu., Sep. 15 – 17	<p>Open Laboratory: Complete Staining Exercises</p> <p>(Note: only 12 students permitted in the laboratory at a time; times can be reserved up to 90 minutes per student per day)</p> <ul style="list-style-type: none"> • LearnSmart Lab Exercise: Staining (closed at 10AM for all lab sections on Sep. 17)

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Mon. – Thu., Sep. 21 – 24	<ul style="list-style-type: none"> • Pre-Lab Quiz #3 [to be taken before coming to lab; available Sep. 18] • Skills Test III: <u>Gram Stain Unknown</u> <p>The following exercises shall be conducted within groups to be assigned by the laboratory instructor:</p> <ul style="list-style-type: none"> • Lecture Notes: <u>Bacterial Growth Responses</u> • Exercise: <u>Selective and Differential Media</u> • Exercise: <u>Effect of Osmotic Pressure on Microbial Growth</u> • Exercise: <u>The Nitrate Test</u>
Mon. – Thu., Sep. 28 – Oct. 1	<ul style="list-style-type: none"> • Pre-Lab Quiz #4 [to be taken before coming to lab; available Sep. 25] • Skills Tests III Due <p>The following exercise shall be conducted within groups to be assigned by the laboratory instructor:</p> <ul style="list-style-type: none"> • Lecture Notes: <u>Kirby-Bauer Susceptibility Testing</u> • Exercise: <u>Antibiotic Susceptibility</u> • Exercise: <u>Pour Plate Counts</u> • Exercise Addendum: <u>Antibiotic Susceptibility Chart</u> (PDF)
Mon. – Thu., Oct. 5 – Oct. 8	<ul style="list-style-type: none"> • Pre-Lab Quiz #5 [to be taken before coming to lab; available Oct. 2] • LearnSmart Lab Exercise: <u>Identification of Unknown Bacteria</u> (open) <p>The following exercises shall be conducted within groups to be assigned by the laboratory instructor:</p> <p><u>Brief Survey of Selected Cocci</u> (Background Reading)</p> <ul style="list-style-type: none"> • Lecture Notes: <u>A Survey of the Cocci Diagnostics</u> • Exercise: <u>Oxidase Test</u> • Exercise: <u>Gelatinase Assay</u> • Exercise: <u>DNase Activity</u> • Exercise: <u>Coagulase Test</u> • Exercise: <u>Catalase Test</u> • Exercise: <u>Hydrolysis of Esculin and L-Pyroglutamic Acid-β-Naphthylamide</u> • Exercise: <u>Antibiotic Sensitivity</u>

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Mon., Oct. 12	No Laboratory – Holiday
Tue., Oct. 13	<ul style="list-style-type: none"> • Pre-Lab Quiz #6 [to be taken before coming to lab; available Oct. 9] <p>The following exercises shall be conducted within groups to be assigned by the laboratory instructor:</p> <p>Part I: A Survey of Selected Bacilli [not yet available]</p> <ul style="list-style-type: none"> • Lecture Notes: Diagnostic Media, Part I • Exercise: Carbohydrate Fermentation • Exercise: Sulfide, Indole, Motility Test • Exercise: Methyl Red-Voges Proskauer Tests
Wed., Oct. 14	<p>Open Laboratory: Complete Diagnostic Exercises</p> <p>(Note: only 12 students permitted in the laboratory at a time; times can be reserved up to 90 minutes per student per day)</p> <p style="text-align: center;"><u>Wednesday labs will not meet this week</u></p>
Thu., Oct. 15	<ul style="list-style-type: none"> • Pre-Lab Quiz #6 [to be taken before coming to lab; available Oct. 9] <p>The following exercises shall be conducted within groups to be assigned by the laboratory instructor:</p> <p>Part I: A Survey of Selected Bacilli [not yet available]</p> <ul style="list-style-type: none"> • Lecture Notes: Diagnostic Media, Part I • Exercise: Carbohydrate Fermentation • Exercise: Sulfide, Indole, Motility Test • Exercise: Methyl Red-Voges Proskauer Tests

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Mon., Oct. 19	<ul style="list-style-type: none"> • <u>Pre-Lab Quiz #6</u> [to be taken before coming to lab; available Oct. 9] <p>The following exercises shall be conducted within groups to be assigned by the laboratory instructor:</p> <p>Part I: A Survey of Selected Bacilli [not yet available]</p> <ul style="list-style-type: none"> • Lecture Notes: Diagnostic Media, Part I • Exercise: Carbohydrate Fermentation • Exercise: Sulfide, Indole, Motility Test • Exercise: Methyl Red-Voges Proskauer Tests
Tue., Oct. 20	<p>Open Laboratory: Complete Diagnostic Exercises</p> <p>(Note: only 12 students permitted in the laboratory at a time; times can be reserved up to 90 minutes per student per day)</p> <p align="center"><u>Tuesday labs will not meet this week</u></p>
Wed., Oct. 21	<ul style="list-style-type: none"> • <u>Pre-Lab Quiz #6</u> [to be taken before coming to lab; available Oct. 9] <p>The following exercises shall be conducted within groups to be assigned by the laboratory instructor:</p> <p>Part I: A Survey of Selected Bacilli [not yet available]</p> <ul style="list-style-type: none"> • Lecture Notes: Diagnostic Media, Part I • Exercise: Carbohydrate Fermentation • Exercise: Sulfide, Indole, Motility Test • Exercise: Methyl Red-Voges Proskauer Tests
Thu., Oct. 22	<p>Open Laboratory: Complete Diagnostic Exercises</p> <ul style="list-style-type: none"> • LearnSmart Lab Exercise: Identification of Unknown Bacteria (closed – 10AM, Oct. 22) <p>(Note: only 12 students permitted in the laboratory at a time; times can be reserved up to 90 minutes per student per day)</p> <p align="center"><u>Thursday labs will not meet this week</u></p>
Mon. – Thu., Oct. 26 – 29	<ul style="list-style-type: none"> • <u>Pre-Lab Quiz #7</u> [to be taken before coming to lab; available Oct. 23] <p>The following exercises shall be conducted within groups to be assigned by the laboratory instructor:</p> <p>Part II: A Survey of Selected Bacilli</p> <ul style="list-style-type: none"> • Lecture Notes: Diagnostic Media, Part II • Exercise: Citrate Utilization Test • Exercise: Urease Test • Exercise: Triple Sugar Iron Test

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Mon. – Thu., Nov. 2 – 5	<ul style="list-style-type: none"> • Pre-Lab Quiz #8 [to be taken before coming to lab; available Oct. 30] <p>The following exercises shall be conducted within groups to be assigned by the laboratory instructor:</p> <p>Part III: A Survey of Selected Bacilli</p> <ul style="list-style-type: none"> • Lecture Notes: Diagnostic Media, Part III • Exercise: Decarboxylation Tests • Exercise: Indole Test • Exercise: Phenylalanine Deamination Test • Exercise: Motility Test
Mon. and Tue., Nov. 9 – 10	<p>Open Laboratory: Complete Diagnostic Exercises</p> <p>(Note: only 12 students permitted in the laboratory at a time; times can be reserved up to 90 minutes per student per day)</p>
Wed., Nov. 11	<p>No Laboratory – Holiday</p>
Thu., Nov. 12	<p>Open Laboratory: Complete Diagnostic Exercises</p> <p>(Note: only 12 students permitted in the laboratory at a time; times can be reserved up to 90 minutes per student per day)</p>
Mon. – Thu., Nov. 16 – 19	<ul style="list-style-type: none"> • Pre-Lab Quiz #9 [to be taken before coming to lab; available Nov. 13] • Lecture Notes: The Bacterial Unknown Project • Skills Test IV: Bacterial Unknowns <p>Charts of Biochemical and Diagnostic Features:</p> <ul style="list-style-type: none"> • Selected Gram-Negative Bacilli Chart • Selected Gram-Positive Bacilli Chart • Selected Cocci Chart
Mon. and Tue., Nov. 23 – 24	<ul style="list-style-type: none"> • Skills Test IV: Bacterial Unknowns (cont.) <p>(Note: only 12 students permitted in the laboratory at a time; times can be reserved up to 90 minutes per student per day)</p>
Wed. and Thu., Nov. 25 – 26	<p>No Laboratory – Holiday</p>

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Mon. – Thu., Nov. 30 – Dec. 3	<ul style="list-style-type: none">• Skills Test IV: Bacterial Unknowns (cont.) <p>(Note: only 12 students permitted in the laboratory at a time; times can be reserved up to 90 minutes per student per day)</p> <ul style="list-style-type: none">• <u>Skills Test IV due by Noon (12:00 PM) on Friday, December 4th</u>
Mon. – Thu., Dec. 7 – 10	Laboratory Closed – Final Exam Week