

MCB 2010L MICROBIOLOGY LABORATORY SCHEDULE Fall 2016 (2017/18 Term I)

TEXT: **MICROBIOLOGY LABORATORY MANUAL 2rd Edition; Obenauf & Finazzo**

| DATE | Lab Period | LABORATORY PROCEDURES (exercises) | DRAW OR RECORD RESULTS OF | LAB REPORTS DUE |
|---------------------------|------------|--|---|--|
| M-T 8/21-22 | 1 | Lab Overview & Lab Safety Rules 1* Basic Techniques Use of the Microscope 5 Microorganisms: Protozoans | Microscope Protozoans | |
| W-R 8/23-24 | 2 | 4 Microorganisms: Microbial Phototrophs 6 Microorganisms: Fungi | Phototrophs Fungi | Microscope, Protozoans |
| M-T 8/28-29 | 3 | 2 Basic Techniques: Aseptic Techniques 7 Microorganisms: Motility: Hanging Drop | Motility | Phototrophs Fungi |
| W-R 8/30-31 | 4 | <input type="checkbox"/> Get Slide Boxes (one per team of 2 – keep in drawer) 8 Staining: Simple Staining & Smear Preparation 9 Staining: Negative Stain | Aseptic Simple Stain Negative Stain | Motility |
| M-R 9/4- 9 /14 | | Micro Lab Closed Labor Day Holiday & Hurricane Irma | | |
| M-T 9/18-9/19 | 5 | 10 Staining: Capsule Stain (may be demo) 11 Staining: Gram Stain 12 Staining: Acid Fast Stain 13 Staining: Endospore Stain (demo) | Capsule Stain, Endospore, Gram, Acid Fast Stain | Aseptic Simple Stain Negative Stain |
| W-R 9/20-9/21 | 6 | 29 Infectious Diseases: Parasitic Protozoans 31 Infectious Diseases: Vectors | Gram, Acid Fast Stain, Parasitic Protozoans, Vectors | Capsule Stain Endospore Stain |
| M-T 9/25-9/26 | 7 | *WRITTEN EXAM 1* <i>(on lab periods 1-6)</i> 20 Growth: Osmotic Pressure & Growth 14 Media: Blood Agar | | Gram, Acid Fast Stain, Parasitic Protozoans, Vectors |
| W-R 9/27-9/28 | 8 | 18 Media: Evaluation (Chemical Content) of Media 19 Growth / Food & Water Safety: Plate Count | Osmotic Pressure, Blood Agar | |
| M-T 10/2-10/3 | 9 | 21 Oxygen and Growth: Aerotolerance 25 Control of Growth: Antimicrobial Susceptibility 24 Control of Growth: UV Light | Content of Media Plate Count | Osmotic Pressure, Blood Agar |
| T-R 10/4-10/5 | 10 | 27 Diagnostic Genetics: DNA Fingerprinting 28 Applied Genetics: Bacterial Transformation | Aerotolerance, Antimicrobial, UV Light, DNA Fingerprinting | Content of Media, Plate Count |
| M-T 10/9-10/10 | 11 | <input type="checkbox"/> Review for Midterm Practical Exam <i>students may attend review sessions in other lab times as guests</i> | DNA Fingerprinting, Transformation | |
| W-R 10/11-10/12 | | No class | | |
| M-T 10/16-10/17 | 12 | ⇒ MIDTERM PRACTICAL EXAM <i>(on lab periods 1 – 10)</i> ⇒ MIDTERM WRITTEN EXAM <i>(on lab periods 7 – 10)</i> | | |

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|----------------------|-----------|---|--|--|
| W-R 10/18-10/19 | 13 | 15 Media: Mannitol Salt Agar (MSA) 16 Media: Eosin Methylene Blue (EMB) 17 Media: MacConkey Agar | | Aerotolerance, Antimicrobial, UV Light, Transformation, DNA Fingerprinting |
| M-T 10/23-10/24 | 14 | 3 Basic Techniques: Isolation Streak Plate 30 Infectious Diseases: Parasitic Worms | MSA, EMB, MacConkey, Parasitic Worms | |
| W-R 10/25-10/26 | 15 | 32 Diagnostic Immunology: Immunoprecipitation 33 Diagnostic Immunology: Passive Agglutination 47 Bacterial Unknowns | Isolation Streak Plate Passive Agglutination | MSA, EMB, MacConkey, Parasitic Worms |
| M-T 10/30-10/31 | 16 | 34 Diagnostic Multisystems: Enterotube II 35 Environmental Microbiology: Soil Microbes | Immunoprecipitation, Unknowns | Isolation Streak Plate Passive Agglutination |
| W-R 11/1-11/2 | 17 | 46 "Known" bacteria for Biochemical testing | Enterotube, Soil Microbes, Unknws | Immunoprecipitation |
| M-T 11/6-11/7 | 18 | 40 Biochemical Testing: Phenol Red (Sugar) Broth 41 Biochemical Testing: Triple Sugar Iron Agar (TSI) | Soil, Knowns, Unknowns | |
| W-R 11/8-11/9 | 19 | Written Exam 3 <i>(on lab periods 13-18)</i> 22 Oxygen Metabolism: Catalase Test 23 Oxygen Metabolism: Oxidase Test 44 Biochemical Testing & Diagnosis: Urease Test | Soil Phenol Red TSI, Catalase Oxidase, Unknowns | Enterotube, Soil Microbes |
| M-T 11/13-11/14 | 20 | IMViC Testing 43 Biochemical Testing & Diagnosis: SIM Medium 43 Biochemical Testing: MR and VP tests 43 Biochemical Testing: Simmon's Citrate Agar | Urease, Unknowns | Phenol Red TSI Catalase Oxidase |
| W-R 11/15-11/16 | 21 | 36 Biochemical / Hydrolytic: DNase Test 38 Biochemical / Hydrolytic: Starch Test 39 Biochemical / Hydrolytic: Casease Test 37 Biochemical / Hydrolytic: Gelatinase | IMViC tests, Unknowns | Urease |
| M – T 11/20 11/21 | 22 | 42 Biochemical Testing & Diagnosis: Litmus Milk | DNase, Starch Casease, Gelatinase, Unknowns | IMViC tests |
| W – R 11/22–11/23 | | Thanksgiving Holiday | | |
| M-T 11/27 -11/28 | 23 | 45 Biochemical Testing: Nitrate Reduction | Litmus Milk, Unknowns | DNase, Starch Casease, Gelatinase |
| W-R 1/29 – 11/30 | | ☐ Review for Final Practical Exam | Nitrate Reduction, Unknowns | Litmus Milk |
| M-T 12/4 – 12/5 | 24 | ⇒ FINAL PRACTICAL EXAM <i>(on lab periods 13 – 23)</i> ⇒ FINAL WRITEN EXAM <i>(on lab periods 19 – 23)</i> | | Unkown Project, Nitrate Reduction |