The mission of Motlow State Community College is to enrich and empower its students and the community it serves.

**BIOLOGY 1110 HYBRID** 
(revised Aug. 2014; This Course Syllabus subject to change with notice)

**Credit Hours:** 4  
**Contact Hours:** 3  
**Lab Hours:** 2

**Prerequisites:** Exemption from or completion of ENGL 0810, READ 0810, and MATH 0810.

**Catalog Description:**
This course examines in detail the physical and chemical basis of life with emphasis on cell processes, reproduction, and inheritance. A unit on Eubacteria, Archaeabacteria, Protista, and Fungi introduces the student to four of the six kingdoms of living organisms.

**Group for Whom the Class is Intended:**
BIOL 1110 is generally appropriate for all students who require biology or a one-year science sequence. The alternate course, BIOL 1030, would be appropriate for the following emphases under the university parallel major: Accounting, Art, Business Administration, Business Education, Communications, Computer Science, Early Childhood Education, Economics, Elementary Education, English, History, Industrial Management, Math, Political Science, Psychology, Secondary Education, Social Science, Social Work, Sociology, and Undeclared.

Associate of Science, Tennessee Transfer Pathways, University Parallel: Biology; Pre-Occupational Therapy; Pre-Physical Therapy; Psychology; Social Work. A one-year Natural Science sequence option for Computer Science and Secondary Education.

A Natural Science option for General Education curriculum core requirements.

**Instructor Information:** will be provided. This information will include name, contact information, office location, office phone, and office hours.

**Required Texts:**
- **BIOLOGY How Life Works**, 1st edition, LaunchPad, textbook website. (Not an optional resource, however it does allow access to the e-version of the textbook)

**Supplemental Materials:** photo atlas in lab (recommended)

**Lab Requirements:** Lab Manual as listed above

**Hardware Requirements:** Students need a reliable computer and dependable internet connection to successfully complete the online portion of the course. Make sure to run a “System Check” before you loin to MSCC Online. Also make sure to have a “back up
plan” in case there are technical issues during assignments. Here are the recommended general System Requirements for MSCC Online:

1. An internet connection
2. Web browser
3. CD drive
4. Sound Card
5. Operating system – Windows XP or higher; Mac OS X
6. Java Script and Cookies Enabled

**Software Requirements:** Much of the online information will be presented using Microsoft Word and PowerPoint. It is best if both of these types of software are available. If not, there is information for downloading free “viewers” for each from http://www.mscc.edu/itts/links.aspx . Viewers do not allow a user all the features, but an individual can still obtain content. Other links, including Adobe software products (pdf), are also available on the same web page.

**Program Learning Outcomes:**

After completing the requirements of the Natural Science Program, students will be able to . . .

1) Conduct an experiment, collect and analyze data, and interpret results in a laboratory setting.
2) Analyze, evaluate and test a scientific hypothesis.
3) Use basic scientific language and processes, and be able to distinguish between scientific and non-scientific explanations.
4) Identify unifying principles and repeatable patterns in nature, the value of natural diversity, and apply them to problems or issues of a scientific nature.
5) Analyze and discuss the impact of scientific discovery on human thought and behavior.

**Student Learning Outcomes:**

By the end of the course, students will be able to . . .

1) Understand the basic chemical makeup of living organisms.
2) Understand the principal energy process of metabolism, including photosynthesis and all respiration.
3) Understand the significance of cell structure and function in life’s processes.
4) Identify DNA’s significance to reproduction and heredity to living things.
5) Identify and classify the major groups of microorganisms, including viruses, bacteria, protists, and fungi.
6) Identify basic steps of the Scientific Method.

**Course Objectives:**

Throughout the course, students will have the opportunity . . .

1). To determine the presence of chemicals necessary for living systems.
2). To view the production of end products of metabolic processes for both photosynthesis and respiration.
3). To observe the cellular structure of the major groups of microorganisms.  
4). To view DNA and the cellular reproductive process.  
5). To practice utilizing each of the steps of the Scientific Method during laboratory sessions.

**ASSESSMENT AND GRADING**

**Testing Procedures:** Lecture exams will be objective in nature. Lecture exams are usually a mix of multiple choice, true/false and matching questions from lecture notes and the text. Laboratory exams are generally fill-in-the-blank. The questions for the laboratory exams come from the background material found in the lab book and the lab procedures and results. Make-up exams will be given only for absences considered “excused” by the instructor provided you have appropriate documentation such as for illness, hospitalization, military duty, court/jury duty, work-related travel, school-sanctioned travel, etc. **Make-up exams will be in a different format that the original exam given.** All make-up exams granted must be scheduled and completed prior to the next class meeting. It is the student’s responsibility to schedule any make-up work with the instructor before returning to class. NO LEGITIMENT DOCUMENTED EXUSE = NO MAKEUP EXAM = A GRADE OF “0” WILL BE GIVEN! **Cheating and Plagiarism:** Cheating will not be tolerated in any form. If cheating or plagiarism is discovered the student will receive an ‘F’ (0) for that assignment.

**Major Assignments and Method for Calculating the Final Grade:**

<table>
<thead>
<tr>
<th>Task</th>
<th>Weight</th>
<th>Student Learning Outcomes (see above)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture Exam Unit 1</td>
<td>100 points</td>
<td>1,3,6</td>
</tr>
<tr>
<td>Lecture Exam Unit 2</td>
<td>100 points</td>
<td>2</td>
</tr>
<tr>
<td>Lecture Exam Unit 3</td>
<td>100 points</td>
<td>4</td>
</tr>
<tr>
<td>Final Lecture Exam Unit 4</td>
<td>150 points</td>
<td>5</td>
</tr>
<tr>
<td>Chapter Assignment(s)</td>
<td>Completion points - 10</td>
<td>1,2,3,4,5</td>
</tr>
<tr>
<td>Chapter: Homework</td>
<td>25 points</td>
<td>1,2,3,4,5</td>
</tr>
<tr>
<td>Chapter: Quiz</td>
<td>25 points</td>
<td>1,2,3,4,5</td>
</tr>
<tr>
<td>Lab Exam I</td>
<td>50 points</td>
<td>2,3,6</td>
</tr>
<tr>
<td>Lab Exam II</td>
<td>50 points</td>
<td>1,3,4</td>
</tr>
<tr>
<td>Final Lab Exam III</td>
<td>50 points</td>
<td>5</td>
</tr>
</tbody>
</table>

**Grading Policies:**

**Grading Scale:** The grading scale for all examinations and the final course grade will be based on the following percentages:
Unless prevented by circumstances beyond his/her control or absent on the basis of an institutionally-approved absence, a student is expected to complete all assignments by the due date and attend regularly all lab classes for which he/she is registered. Regardless of the cause or nature of the absence, the student is responsible for the material covered or assigned during the absence.

The FA grade indicates that the student earned a grade of F (failing) and accumulated excessive absences’ (non-school-related absences’) totaling more than fifteen percent (15%) of the total number of times a class meets during the semester.

Please do not request or expect extra credit or grade curves. Concentrate all efforts on learning the assigned material.

Class Participation and/or Attendance may be a percentage of the final grade. Class participation and attendance are based on time spent in D2L (course activity will be monitored, responses to discussion posts, and percentage of assignments completed. (Please see D2L information below (Educational Technology)).

Each student will be expected to provide an online introduction at the beginning of the class. This will count as the first attendance in the class and will be recorded as such for financial aid purposes.

Access to LaunchPad (the textbook website) is required for this class and must be purchased. From this website the student will have access to the Learning Curve Activities, Homework, and Quizzes for each chapter.

A discussion section for each chapter will be provided for questions concerning the material being covered in that chapter.

Chapter Assignment points are based on the percentage of the activity completed not the number of correct responses. This activity is used to aid in the mastering of the topics presented.

Homework and Quizzes are graded based on the number of correct responses. These scores will be recorded and used to calculate the final grade.

All Exams both for Lecture and Lab will be printed, proctored exams taken during the normally scheduled lab period. This includes the Final Exam which will be taken during the same class period during the Final Exam Week.

Each Unit will contain the material from several chapters. The Lecture Exam will contain questions from all of the chapters within a unit. There will be specific assignments for each chapter. These assignments will typically include reading, pre or in-class assignment, homework, discussion, and a chapter quiz. Due dates for these assignments will vary based on the length of the chapter and the amount of information covered. Laboratory assignments will be completed during the scheduled meeting time each week. Please see the table “Class Schedule of Assignments” at the end of this syllabus.

Guidelines for Communication:

Email: Email is the preferred communication method used in online/hybrid courses. Motlow online/hybrid courses (MSCC Online / Desire2Learn / D2L) use an internal email that is separate from the regular Motlow email. An individual can only email to and from
D2L when in D2L. PLEASE use the internal course email (D2L Email) when possible for this course. Doing so will help keep online/hybrid student emails separate from regular emails. (But don’t forget to check both regularly!) During the Monday-Friday workweek, I will respond to an email within 48 hours. If emailed on a weekend, response will be by noon on Monday. If I will be unavailable to respond for some reason, I will notify the class.

When using Email:
- Always include a subject line.
- Remember, without facial expressions some comments may be misinterpreted.
- Please be considerate of others feelings and word emails appropriately.
- Use standard fonts.
- Do not send large attachments without prior permission.
- Use standard formatting unless necessary to complete an assignment or special communication.
- Always respect the privacy of other class members.

**Discussion Posts:** Students are encouraged to engage in course communications through the use of the D2L Discussion Boards. ALL STUDENTS should post an “introduction” during the first week of class in which they tell about themselves.

When using Discussion:
- Review any discussion threads thoroughly before entering into the discussion.
- Attempt to maintain threads by using the “Reply” button rather than starting a new topic.
- Do not make insulting or inflammatory statements to other members of the discussion group.
- Be respectful of the ideas of others
- Be patient and read the comments of other group members thoroughly before responding.
- Be positive and constructive in group discussions.
- Respond in a thoughtful and timely manner.

**Library:** The Clayton-Glass Library at Motlow College is available to all students enrolled at the college. Links to library materials, e.g., electronic journals, databases, interlibrary loans, digital reserves, dictionaries, encyclopedias, maps, and library support services are available at [http://www.mssc.edu/library/index.aspx](http://www.mssc.edu/library/index.aspx).

**Course Policies:**

**Academic Misconduct Policy:**
Plagiarism, cheating, and other forms of academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly, through participation or assistance, are immediately responsible to the instructor of the class. Based on their professional judgment, instructors have the authority to impose the following academic sanctions: (a) require the student to repeat the assignment for full or partial credit; (b) assign a zero, an F, or any other grade appropriate for the assignment or examination; (c) assign an F for the course. In addition, disciplinary sanctions may be
imposed through the regular institutional procedures. For more information, see MSCC Policy 3:02:00:03.

**Classroom Misconduct Policy:**
The instructor has the primary responsibility for maintenance of academic integrity and controlling classroom behavior, and can order temporary removal or exclusion from the classroom of any student engaged in disruptive conduct or conduct that violates the general rules and regulations of the institution for each class session during which the conduct occurs. Extended or permanent exclusion from the classroom, beyond the session in which the conduct occurred, or further disciplinary action can be effected only through appropriate procedures of the institution.

Disruptive behavior in the classroom may be defined as, but not limited to, behavior that obstructs or disrupts the learning environment (e.g., offensive language, harassment of students and professors, repeated outbursts from a student which disrupt the flow of instruction or prevent concentration on the subject taught, failure to cooperate in maintaining classroom decorum, etc.), text messaging, and the continued use of any electronic or other noise or light emitting device which disturbs others (e.g., disturbing noises from beepers, cell phones, palm pilots, lap-top computers, games, etc.). For more information, see MSCC Policy 3:02:00:03.

**Class Cancelation Policy:**
Each instructor will explain how students will learn of class cancelations and give instructions for how the class calendar will be affected. This notification may be via D2L, Motlow email, and/or Molow Rave system ([https://www.getrave.com/login/mscc](https://www.getrave.com/login/mscc)). Additional information may also be given as to how to prepare for the next class period.

**Emergency Procedures Policy:**
In case of a medical emergency we will immediately dial 9-911 and report the nature of the medical emergency to emergency response personnel. We will try to stay with the person(s) in need and maintain a calm atmosphere. We will talk to the person as much as possible until response personnel arrive on campus, and we will have someone go outside to meet emergency personnel and direct them to the appropriate location.

In the event of an emergency (drill or actual), a signal will be sent. Based on that signal, students will follow the procedures below for that specific type of emergency:

**Loud warbling sound throughout Building (FIRE):**
Collect purses and coats and proceed immediately out of your room and exit through the closest emergency exit. Proceed to the Designated Assembly Area closing windows and doors as you exit. Remain there until the "All Clear" Signal is given by an Emergency Management Team member. (Instructors- Provide your Designated Assembly Area, and its location to students)

**Tornado Siren (SEVERE WEATHER):**
Proceed to the closest designated severe weather shelter on the 1st floor and proceed all the way into the shelter. Crouch down on the floor with your head between your knees facing away from the outside walls.
Remain there until the "All Clear" Signal is given. (Instructors- Provide the recommended room number or hallway location to students)

**Air Horn (1 Long Blast) and Face to Face All Clear (INTRUDER/HOSTAGE):**
Ensure door is closed, locked and lights turned off. If your door will not lock, move some tables and chairs in front of the door quickly. Move immediately to the rear of the room away from the door and sit on the floor-out of sight if possible. Remain calm and quiet and do not respond to any inquiries at the door unless you have been given the "All Clear" and a member of law enforcement or your campus Emergency Management Team member makes face-to-face contact at your door.

**Classroom Locked-door Policy:**
In order to adhere to MSCC Emergency Preparedness Policy and to facilitate effective classroom management, the classroom door will remain closed and locked for the duration of the class period.

**Instructor Policies:**
Each instructor may have specific policies regarding Make-up Work/Exams, Class Cancelation Procedures, Use of Electronic Devices in Class, Food/Drink in class, Bringing Children to the Classroom, Retention of Graded Assignments/Exams, Recording of Lectures, etc.

**Educational Technology:**
**Accessing Campus Computers or the MSCC Library from Off Campus:**
Your Username format is your First Initial, Last Name and Month and Day Birthday in the Format of MMDD. Example: Marcia Smith born on April 11, 1992 - Username: msmith0411. Your Pin will be the numeric pin you created when you initially applied to Motlow College.

**Using D2L:**
For help with D2L including how to submit materials to a Dropbox, see this page: [http://www.mscc.edu/techtube.aspx](http://www.mscc.edu/techtube.aspx)

**Login Information: D2L ID format:**
Your first initial + your full last name + the first four digits of your birthdate; no spaces. For example, if Cathy Jones' birthday is February 24, 1992, her **D2L ID** would be cjones0224.

Your password is the same as your Motlow email/computer login password. You must login to either email or a computer on one of the Motlow campuses prior to logging into D2L.

After you have successfully logged on, you will see your "My Home" page showing the on-line course(s) in which you are enrolled. Click on the link to attend class.

You may also click here for Motlow's TechTutorials for D2L: [http://www.youtube.com/user/MotlowCollege#p/u/12/770Sx0gLrWE](http://www.youtube.com/user/MotlowCollege#p/u/12/770Sx0gLrWE)

**Note:** Classes will not appear in D2L until the first day of class.
Technical Support/Assistance:
Students having problems logging into a course, timing out of a course, using course website tools, or any other technical problems, should contact the MSCC Technology Help Desk at 931-393-1510 or toll free 1-800-654-4877, Ext. #1510 or d2lhelp@mscc.edu for D2L problems and helpdesk@mscc.edu for general technical problems not involving D2L.

Disability Services/Accommodations:
Motlow College is committed to meeting the needs of qualified students with disabilities by providing equal access to educational opportunities, programs, and activities in the most integrated setting appropriate. This commitment is consistent with the College’s obligations under Section 504 of the Rehabilitation Act of 1973 and the American with Disabilities Act of 1990 (ADA). Together, these laws prohibit discrimination against qualified persons with disabilities. To this end, the Director of Disability Services for Motlow College coordinates services and serves as an advocate and liaison for students with disabilities attending Motlow College. Contact the Director of Disability Services here: http://www.mscc.edu/disability/index.aspx.

Students with disabilities who would need assistance in an emergency evacuation should self-disclose that need to the instructor no later than the second day of class or second group meeting.

Confidentiality of Student Records:
The education records of current and former students at Motlow State Community College are maintained as confidential records pursuant to The Family Educational Rights and Privacy Act (FERPA) of 1974 as amended. For further information, see MSCC Policy No. 3:02:03:00.

Student Success:
Tutoring: MSCC Instructors can guide students to specific resources regarding Tutoring in their discipline. In particular, students may find help with Math and Essay Writing via each campus’ Learning Support labs. Students should contact the labs on their campus to schedule appointments for help. For additional help, see the Student Success page: http://www.mscc.edu/student_success/index.aspx

Academic Advisement: MSCC Instructors can guide students to specific resources regarding Advisement. For additional help, see the Academic Advisement page: http://www.mscc.edu/advisement/index.aspx

Class Schedule of Assignments:
Students are responsible for reading the chapters assigned. Each of these will be discussed in lecture class. Students are also responsible for the laboratory content of each laboratory meeting.
<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Content to be Covered by week</th>
<th>Student Assignments/Supplementary Material</th>
</tr>
</thead>
</table>
| 1, 5, 6                   | Characteristics of Life; Scientific Method | Chapter 1  
Lab Exercise: Taxonomy |
| 1, 6                      | Biochemistry; Properties of Water | Chapter 2  
Lab Exercise: Microscopy / The Cell |
| 1, 3, 6                   | Nucleic Acids, Protein Production and Structure | Chapters 3-4  
Lab Exercise: Diffusion / Osmosis |
| 1, 3, 6                   | Cell Structure; Membranes | Chapters 5, 10  
Lab Exercise: Cellular Respiration/Photosynthesis |
| 1, 2                      | Energy; Metabolism | Lecture Exam Unit 1; Chapter 6  
Lab Exercise: Lab Exam I |
| 1, 2, 3                   | Respiration | Chapter 7  
Lab Exercise: Mitosis/Meiosis |
| 1, 2, 3                   | Photosynthesis | Chapter 8  
Lab Exercise: DNA / Enzymes |
| 1, 4                      | Mitosis; Meiosis | Chapter 11  
Lab Exercise: Genetics |
| 1, 3, 4                   | Genetics; DNA | Lecture Exam Unit 2; Chapters 12, 16  
Lab Exercise: Lab Exam II |
| 1, 2, 4                   | Evolution | Chapter 21  
Lab Exercise: Kingdom Eubacteria |
| 1, 4, 5                   | Population Genetics; Taxonomy; Classification | Chapters 22, 23  
Lab Exercise: Kingdom Protista (Algae) |
| 1, 3, 5                   | Viruses | Lecture Exam Unit 3:  
Chapters 13.5; 19.15-19.19  
Lab Exercise: Kingdom Protista (Protozoa) |
| 1, 3, 5                   | Prokaryotes | Chapter 26  
Lab Exercise: Kingdom Fungi |
| 1, 3, 5                   | Protista | Chapters 27  
Lab Exercise: Lab Exam III |
| 1, 3, 5                   | Fungi | Chapter 34  
Lab Exercise: Final Exam / Unit 4 |

**Course Outline / Syllabus Changes:**  
The instructor reserves the right to make changes as necessary to this syllabus.  
If changes are required during the term, the instructor will immediately notify students of such changes by email and/or discussion board.