

**Alabama A&M University
School of Arts and Sciences
Department of Biology**

COURSE TITLE: General Biology
Course Number: BIO 101 & 102
Course Credit: Three Semester Hours (3)
Prerequisites: None
Instructor: Biology Faculty

COURSE DESCRIPTION:

The first semester introduces the student to the basic characteristics, principles, and organization of living things. It lays the foundation in chemistry needed for an understanding of biological processes. From this background, the energetic relationships of photosynthesis and respiration, behavior of chromosomes and foundations of genetic mechanisms, basic concepts of taxonomy and the monerans, protistans, fungi and lower plants will be discussed in detail.

Biology 102 will continue with a detailed discussion of each system of the complex animal body with special emphasis on human structure and function. The problems of support, movement, supply of materials, distribution, waste removal regulation and reproduction are discussed. The focal points of the course are on the structure and function of the major systems of the human body. Infectious disease, immunity and cancer are also discussed as related to the major systems of the human body.

Weekly lab exercises will complement each major lecture topic.

RATIONALE:

This course is designed to provide the student with the tools needed to function as a biologically literate citizen. This will involve an introduction to the basic principles, their social/ environmental implications and a study of interrelationships of living organisms-their dependence upon one another and upon the environment.

COURSE GOALS:

As a result of active participation (attending lectures and labs, reading all assigned materials and completing all assignments) in the lecture and labs, the student should be able to:

1. Appreciate the unity and diversity of living things.
2. Understand his/her own nature, as well as that of other living systems.
3. Understand the role and implications of biology for daily living.
4. Understand the basic laboratory skills applicable to scientific research in the various fields of biology.

MODE OF INSTRUCTION:

The basic methods of instruction will include lectures, lecture discussions, lecture-lab discussions. Questions are invited and may be raised at any point. In addition, all students are expected to participate.

MATERIALS OF INSTRUCTION:

- A. Text: Biology: The Unity & Diversity of Life Starr and Taggart; Tenth Edition. Thompson, Brooks, and Cole Publishing. Belmont, CA 2002.**
- B. Laboratory Manual: Laboratory Exercises in Biology. Jenkins, Henderson, et. al., Second Edition; Kendall Hunt Publishers, Dubuque, LA, 1988.**
- C. Audio-Visual Materials. Films, transparencies, film strips, models, etc. will be used as they relate to the subject matter and are available.**

PROCEDURES/REQUIREMENTS/EVALUATION

- 1. Lecture classes will meet for three one-hour or two eighty minutes periods per week and labs will meet for one two-hour period. The student is expected to attend all class sessions and to prepare adequately for each.**
- 2. Responsibility for student matters covered during absences, excused or unexcused, rests on the student.**
- 3. Each student must have a new lab manual. Please read lab assignments before coming to lab class. The lab work itself is designed to cover the full lab period, so there will be no time to read and do the work at the same time. Special instructions, directions, and explanations are given at the beginning of the lab period. Be on time. Lab reports are due at the end of the lab period.**
- 4. Problems involved in lab prep make it impossible to offer make-up labs. However, if you find that during the week you can not be present for the lab in which you are registered, please check the master lab schedule and make arrangements to attend another section or another instructor's lab.**
- 5. Grades of "I" or "W" will not be substituted for grade "F". University regulations regarding "I's" or "W's" will be followed. Examination schedules and grading scales for lectures and labs will be determined by individual instructors.**

6. **Instructors will be available for extra assistance during office hours which will be posted. If this conflicts with your schedule, other arrangements will be made.**
7. **Lab reports, which will make up a part of the grades, are to be turned in at the end of each lab period.**

Grading scale:

90-100	A
80-89	B
65-79	C
55-64	D
54 & less	F

STUDENT BEHAVIOR

- A. **Class attendance**
 1. **Students are expected to attend all class meetings**
 2. **Students are expected to be on time. The instructor will lock the door five minutes after the class begins.**
- B. **Classroom behavior**
 1. **Students are not expected to talk out of order during lecture or classroom discussion. Remember that good communication includes listening as well as talking.**
 2. **Students are expected to show a positive attitude in class.**
 3. **Only acceptable language is tolerated in the classroom.**

Students continuing to talk and to use unacceptable language will be asked to leave the classroom.

- C. **Students are expected to be present and participate in all testing activities. If students are excused for emergency reasons, make-up test must be taken within ten school days.**

**ALABAMA A & M UNIVERSITY
SCHOOL OF ARTS AND SCIENCES
DEPARTMENT OF BIOLOGY**

Course Title: General Biology Lab
Course Number: 101L and 102L
Course Credit: One Semester Hour (1)
Prerequisites: None
Instructor: Biology Faculty

COURSE DESCRIPTION:

Biology 101L provides the student with hands-on activities involving the topics taught in the lecture. Topics included are the basic characteristics, principles, and the organization of living things. Chemistry is used to relate the biological processes, such as photosynthesis, respiration, behavior of chromosomes and basic taxonomy.

Biology 102L activities are designed to demonstrate each system of the complex animal body including man. The structure and functions are emphasized by using models, VHS, and designed experiments that focus on normal and abnormal functions of the systems.

RATIONALE:

This course has the same rationale as the lecture but provides hands-on activities. This provides the student experience in laboratory techniques. The rationale for the lecture is to provide the student with the tools needed to function as a biological literate citizen. This involves knowing the basic principles, their social/environmental implications and the interrelationships of living organisms/their dependence upon one another and their environment.

COURSE GOALS:

As a result of active participation in the lab, the student should be able to:

1. Appreciate the unity and diversity of living things.
2. Understand his/her own nature, as well as that of other living system.
3. Understand the role and implication of biology for daily use.
4. Understand the basic laboratory skill applicable to scientific research in the various fields of biology.

MODE OF INSTRUCTION:

The basic methods of instruction will include short introductory lectures followed by the experiment and a summary of the experiment at the end of the period. Students are invited to raise questions at any point of the class period. All students are to participate.

MATERIALS OF INSTRUCTION:

1. Laboratory Manual: Laboratory Exercises in Biology. Jenkins, Henderson, et. al., Second Edition: Kendall Hunt Publishers, Dubuque, Ia, 1988.
2. Designed experiments and Audio Visual Material.

PROCEDURES/REQUIREMENTS/EVALUATION

1. Labs will meet for one two-hour period per week. The student is expected to attend all labs and to prepare adequately for each.
2. Each student must have a new lab manual. Please read lab assignments before coming to lab class. The lab work itself is designed to cover the full lab period, so there will not be any time to read and do the work at the same time. Special instructions, directions, and explanations are given at the beginning of the lab period. Be on time. Lab reports are due at the end of the lab period.
3. Problems involved in lab prep make it impossible to offer make-up labs. However, if you find that during the week you cannot be present for the lab in which you are registered, please check the master lab. Schedule and make arrangements to attend another section or another instructor's lab.
4. Grade of "I" or "W" will not be substituted for grade "F". University regulation regarding "I" or "W" will be followed. Individual instructors will determine examination schedules.
5. Lab reports, which make up a part of the grade, are to be turned in at the end of each lab period.

Grading scale:

90-100	A
80-89	B
65-79	C
55-64	D
54 & less	F

STUDENT BEHAVIOR

1. Class attendance
 - a. Students are expected to attend all labs
 - b. Students are expected to be on time. The instructor will lock the door five minutes after the class begins.
2. Classroom behavior
 - a. Students are not expected to talk out during the short lecture and are to keep talking low during the lab. Good communication includes listening as well as talking.
 - b. Students are expected to show a positive attitude in class.
 - c. Only acceptable language is tolerated in the classroom. Students continuing to talk and to use unacceptable language will be asked to leave the classroom.

3. Students are expected to be present and participate in all testing activities. If students are excused for emergency reasons, make-up test must be taken within ten school days.