

**BSC 104- Dual Credit Biology Lecture and Lab,**

**Instructor**: Mrs. Spicher, Room 108

**Instructor Contact Information:** (304) 986-3063, RSpicher@k12.wv.us

**Meeting Hours**: During Planning, after school

**Course Description:** Fundamentals of biology with emphasis on the unity of life, energetics, genetics and the world of living things. It is a 4-credit course and is intended for non-science majors.

**Required Textbooks (provided by NMHS):**

Lecture: Campbell Essential Biology 6th edition, Simon, Dickey, Hogan, and Reece, published by Pearson.

Laboratory Guide, Susan Weinstein (available at Marshall Bookstore)

**Course Student Learning Objectives:**

The overall objective of this course is to introduce the principles and processes of biology through an emphasis on the natural world and on current topics in the field of biology. Laboratories will present simple experiments to further strengthen those concepts learned in lecture.

**What is a Dual Credit Class?**

Dual credit classes are college level courses offered in the high school setting that provide students with a required high school credit AND a college credit. It also helps to prepare students for college by providing them with a rigorous college experience during high school. We are also very fortunate at NMHS to have the Clark Opportunity Foundation. This Foundation pays the tuition for all students entering Marshall University and West Virginia Northern college courses. If for some reason, a student receives a bill for their BSC 104 course from Marshall University, please have the student bring it in to Mrs. Spicher who will deliver it to the Opportunity Foundation. Do not pay the bill! ☺

**What is the difference between Dual Credit and Advanced Placement (AP) classes?**

|  |  |  |
| --- | --- | --- |
|  | Dual Credit  | Advanced Placement (AP)  |
| Do students have to complete an exam at the end of the class to determine college credit? | No. Students do not have to pass an exam to earn college credit. If a student passes the dual credit class, they earn college credit. | Yes. Students must pass an exam at the end of the course and earn at least a score of “3” in order to earn college credit. |
| What is the curriculum like? | A dual credit class is a true college class offered in the high school setting. Grades come primarily from tests and quizzes. The teacher follows the course requirements outlined by the college. (In this case Marshall University).  | An advanced placement class is a high school class that gives students the option to earn college credit. The course is structured as an advanced high school course. The teacher follows the course requirements outlined by the College Board.  |

**Detailed policies**

**Extra Credit:** No extra credit will be given.

**Late work:** No late work will be accepted.

**Attendance:** Attendance at all scheduled lectures and exams is encouraged Lectures are only given once. If a student misses class, please obtain notes/information from a classmate. Anything covered in class, including lectures, discussions, movies, or any exercise will be included on exams. **Good attendance is essential to being successful in college!**

**Student Conduct:** Please behave respectfully in class. If major conduct issues occur the student may be dropped from the class. Here are some basic class rules:

 1. Follow all school rules at North Marion High School.

2. Respect all.

3. Be prepared.

4. Go to the restroom, locker, etc. BEFORE the bell rings.

5. No electronic devices.

**Academic Dishonesty Policy:**

By enrolling in this course, students agree to the University Policies listed below. Please read the full text of each policy be going to [www.marshall.edu/academic-affairs](http://www.marshall.edu/academic-affairs) and clicking on “Marshall University Policies.” Or, you can access the policies directly by going to <http://www.marshall.edu/wpmu/academic-affairs/policies/>

**1) Cheating.** The term “cheating” includes, but is not limited to:

(a) use of any unauthorized assistance in taking quizzes, tests, or examinations;

(b) Dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;

(c) the acquisition, without permission, of tests, notes or other academic material belonging to a faculty or staff member of the university;

(d) dual submission of a paper or project, or resubmission of a paper or project to a different class without express permission from the instructor(s).

(e) any other act designed to give a student an unfair advantage.

**2) Plagiarism**. The term “plagiarism” includes, but is not limited to:

(a) the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgement and

(b) the knowing or negligent unacknowledged use of materials prepared by another person or by an agency engaged in the selling of term papers or other academic materials.

**Grading**

Grades from college science courses come primarily from tests, quizzes, and lab materials. Credit is based on the Marion County Schools grading scale.

Grading Scale

90 -100 A

80 - 89 B

70 - 79 C

60 - 69 D

0 - 59 F

**Grading Note: All questions regarding grades must be addressed prior to the end of the 9 weeks grading term. Grades will not be changed after the 9 weeks/semester term. If a student has a question about grades, it is his/her responsibility to check LiveGrades and speak to the teacher before school, after school, during lunch, or homeroom. Grades will not be discussed during class time.**

**APPROXIMATE LECTURE SCHEDULE- Subject to Change**

|  |  |  |
| --- | --- | --- |
| **Weeks**  | **Lecture Topic** | **BOOK CHAPTER** |
| 1 |  Essential Chemistry  | **2**  |
|  Molecules of Life  | **3** |
| 2 |  Cell  | **4, 5** |
| 3 |  Energy from Food (Cellular Respiration) | **6** |
| 4  |  Photosynthesis  | **7** |
| 5 |  Cellular Reproduction (Mitosis & Meiosis) | **8** |
| 6 |  Patterns of Inheritance | **9** |
| 7 | Molecular Genetics | **10** |
| 8  | DNA Technology | **12** |
| 9  | How Populations Evolve | **13**  |
| 10  | How Biodiversity Evolves  | **14**  |
| 11  | Microbial Life | **15** |
| 12 | Plants and Fungi | **16** |
| 13 | Animal Evolution | **17** |

Science Safety Contract

This school district strives to provide a safe hands-on learning environment for students in the science laboratory. However, this requires cooperation from both students and teacher. Please take the time to read this contract, sign it, and return it to school as soon as possible. **This form must be completed prior to student participation in laboratory activities. In addition, any student in violation of the following rules/procedures will be removed from the laboratory and fail the laboratory portion of the class** **for the semester. This contract is subject to change at the discretion of the instructor.**

**CONDUCT**

1. Be respectful of other students and teacher(s) in the laboratory. All school/lecture rules still apply in the laboratory.
2. Read all assigned instructions and materials prior to lab.
3. Wear clothing that is appropriate for lab: no open-toed shoes or sandals, long hair must be tied back, and no loose fitting clothing permitted.
4. Personal Protective Equipment (PPE) must be worn at all times. This includes: safety goggles, gloves, laboratory coats, aprons, etc.
5. Students must follow all directions (written and oral) provided by the instructor. As a result, students must never perform their own experiments, or begin a laboratory assignment without permission.
6. Students must know the locations of all safety equipment and their proper use. An eyewash area, fire extinguisher, safety shower, first aid kit and fire blanket are in the lab to help maintain safety.
7. No food, drink, or gum chewing are permitted in the lab.
8. Maintain a clean work area.
9. In the event of a fire drill close any open containers, turn off any electrical equipment, and turn off all Bunsen burners prior to leaving. Form a line at the doorway and exit the lab in a single file line. **Remain calm.**

**COMMUNICATION**

1. If there is an injury, no matter how small, notify the instructor immediately. **Remain calm. No disciplinary action will be taken if the instructor is notified immediately.**
2. Notify the instructor immediately of any broken glass, spills, or other accidents. **Remain calm. Do not handle the situation by yourself. The instructor will clean up any spills and dispose of glass properly. No disciplinary action will be taken if the instructor is notified immediately.**
3. Ask questions. If you do not understand a procedure ask the instructor for help. Do not proceed through an experiment that you do not understand.

**QUESTIONS- (All answers will remain confidential between the teacher and school nurse). THIS SECTION IS TO BE COMPLETED BY STUDENT AND GUARDIAN**

1. **Does the student wear contact lenses?**
2. **Does the student have allergies? If so please list specific allergies and any necessary emergency treatment. The school nurse may contact you to develop an emergency treatment plan if necessary.**

Marshall Dual Credit Syllabus and Lab Safety Acknowledgement Form:

I have read and I understand the syllabus and requirements for this course. I understand that changes to requirements and evaluation processes may be necessary due to the particular needs of this group of students or unforeseen events.

Student name (printed) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_

Parent/Guardian name (printed)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_