Randolph County School System
Trinity High School HB11—Biomedical
Technology I

Syllabus

INSTRUCTOR INFORMATION:
Name – Cheri Conner RN, BSN
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Planning: 2nd period, Availability Before and/or After School

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COURSE DESCRIPTION: This course focuses on cell biology and cancer, infectious diseases, pathology, and biomedical research utilizing curriculum developed by the North Carolina Association for Biomedical Research (NCABR) and the National Institutes of Health (NIH). Students will learn about careers in biotechnology within the context of the course content. Projects, teamwork, and demonstrations serve as instructional strategies that reinforce the curriculum content. English language arts and science are reinforced in this course. Work based learning strategies appropriate for this course include service learning, and job shadowing. Apprenticeship and cooperative education are not available for this course. Health Occupations Students of America (HOSA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences. Biology is recommended as good preparation for this course.

Prerequisites/requisites: Biology is recommended
Credits: 1

COURSE OBJECTIVES/COMPETENCIES: More specifically, upon completion of the course the student should be able to:

A- UNDERSTAND BIOMEDICAL RESEARCH AND OTHER ISSUES IN SCIENCE

BMTI 01.00 Understand biomedical research

1.01Types of Biomedical Research

1.02 Biomedical Research Methods

1.03 Benefits of Biomedical Research

BMTI 02.00 Understand the use and care of animals in biomedical research

2.01 Use of Animals in Biomedical Research
2.02 Care of Animals in Biomedical Research
2.03 Emerging Issues in Animal Research

BMTI 03.00 Understand some of the challenges to biomedical research

3.01 Animal Research: Issues and Answers
3.02 Transgenic Animals
3.03 Therapeutic vs. Reproductive Cloning

BMTI 04.00 Understand other issues in science

4.01 Genetic Primer
4.02 Therapeutic vs Reproductive Cloning
4.03 Genetically Modified Organisms
4.04 Regenerative Medicine
4.05 Nanotechnology

B-UNDERSTAND CANCER, INFECTIOUS DISEASES AND FORENSIC MEDICINE

BMTI 4.00 Understand Cell Biology and Cancer

4.01 Understanding Cancer
4.02 Cancer and the Cell Cycle
4.03 Cancer as a Multistep Process
4.04 Cancer Prevention and Detection
4.05 Cancer Treatment and Research

BMTI 05.00 Understand Emerging and Re-emerging Infectious Diseases

- 5.01 Nature and Causes of Infectious Disease
- 5.02 Modes of Transmission and Chain of Infection
- 5.03 Occurrences of Infectious Diseases
- 5.04 Super Bugs
- 5.05 Vaccinations and Prevention of Infectious Diseases

BMTI 6.00 Understand Pathology and Forensic Medicine

- 6.01 Diagnostic Services in Health Care
- 6.02 Autopsy
- 6.03 DNA Analysis
- 6.04 Applications of Forensic Science

TOPICS TO BE COVERED:

Week 1-2 Types, Methods, Benefits of BMR Test Day 10
Week 3-4 Use and Care of Animals in BMR Test Day 18
Transgenic animals and cloning
Week 5-6 Transgenic animals and cloning Test Day 28
Week 6-7 Careers in Bioscience, Nanotechnology, Regenerative Medicine, Genetics and Vaccine
Week 8-9 Careers in Bioscience, Nanotechnology, Regenerative Medicine, Genetics and Vaccine Test Day 42 Day 43 Cancer Week 9-11 Cancer Test Day 53
Week 11-13 Infectious Diseases Test Day 64
Week 14-15 Forensic Medicine Test Day 74
Week 16-17 Exam review
Week 17-18 Exams

TEXTBOOK: No textbook is used in this course. Students receive packets for each unit and have computer access at school.

ADDITIONAL MATERIALS: Notebook paper and pencils. Flash stick would be useful for making copies in my classroom. Colored pencils, crayons, highlighter

EVALUATION: Test- 25%
Quizzes 25%
Classwork 25%
Projects 25%

GRADING SCALE:	A	90-100
	B	80-89
	C	70-79
	D	60-69
	F	Below 60

ATTENDANCE POLICY: RCSS policy

CLASSROOM POLICIES. Classroom Rules Contract

1. Be in class when the bell rings, take your seat and have materials ready to begin. Begin bell ringer on the board. NO TALKING!
2. No talking unless answering a question or in a group activity.
3. Remain in your seat and quiet, raise your hand to be called to speak or leave your seat.
4. All test, papers, projects, etc. must have your name, class, period and date or it will not be graded. Documentation in medicine is very important. A patient could die.
5. Turn all assignments in and place in folder after grading
6. Listen and follow all directions the FIRST time.
7. No food, drink or gum in class without my permission.
8. NO heads down on desk or sleeping in my class.
9. No personal hygiene in class. (Makeup, hair brushing, etc.)
10. NO working on class work from another class in my class. If I see it, it is MINE.
11. Follow all Trinity School rules.
12. Show respect at all times for yourself and others.

Rules of equipment use

1. Use no equipment without asking my permission.
2. Put away all materials and equipment at the end of class.
3. Pick up any trash around your desk and put in trash.

4. Notify me if any equipment breaks immediately.

Make up work

1. Students are responsible for asking teacher for all work missed.
2. All student work is due 3 days after the day student returns to school.
3. Student must arrange time to make up any test.
4. Any work not turned in by due date will count as a zero.
5. After the 5th absence the highest grade allowed is 65.

Consequences of breaking contract

1. Warning to student.
2. After school detention and call to parent.
3. ISS - handled by administration.

Student signature_____
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Parent/Guardian signature_____

SAFETY—See THS student handbook policies for lab/shop settings—safety glasses, shoes, hair, etc. and procedures for lockdown, tornado, fire, and/or other hazard drills.