

Hagerstown Community College

Master Syllabus

COURSE: BTC 202, Biomanufacturing, 4 Credits

DATE: Spring 2018

INSTRUCTOR: C. Dove

COURSE DESCRIPTION: This course introduces the tools, techniques, and regulatory constraints that apply to Biomanufacturing laboratories. Topics include: types of biomanufactured products, cleanroom operations, cell and tissue culture techniques, extraction and purification of biological products, documentation and quality assurance within the framework of safe manufacturing procedures regulated by federal, state, and local agencies. Laboratory fee required 45 hours of lecture and 45 hours of lab. Prerequisite: BTC 101 and BIO 205 .

TEXTBOOK: Materials will be available on Moodle.

STUDENT LEARNING OUTCOMES:

1. Apply a basic core of scientific and quantitative knowledge to enhance understanding of biomanufacturing processes and methods.
2. Understand and apply basic skills essential for following Standard Operating Procedures (SOPs).
3. Develop and maintain a notebook of laboratory records.
4. Analyze and evaluate the effect of variables on experimental results including enzymes, reaction time and protocol adherence.

MINIMUM CLOCK HOURS REQUIRED FOR THIS COURSE

Activity	DIRECT Faculty instruction IN CLASS	Student Work OUT OF CLASS
Lecture/Exams	37.5 hours	25 hours reading available materials
Studying for 3 Exams		36 hours (8 hours per exam)
Assignments		30 hours
Studying for Comprehensive Final Exam		12 hours
Total Hours for Lecture	37.5 hours	103 hours
Lab	45 hours	
Lab Notebook		45 hours (3 hours per week)
Studying for Lab Exams		16 hours (8 hours per exam)
Total Hours for Lab	45 hours	62 hours
Total Hours for Course	84.5 hours	165 hours

Services for Students with Disabilities: Students may receive reasonable accommodations if they have a diagnosed disability and present appropriate documentation. Students seeking accommodations are required to contact the Disability Support Services (DSS) office as early as

possible. Students may contact a DSS staff member for an appointment at dss@hagerstowncc.edu or at 240-500-2530.