

Course Change Request

New Course Proposal

Date Submitted: 12/19/18 12:23 pm

Viewing: **MLAB 414 : Molecular Detection of Infectious Disease**

Last edit: 12/19/18 12:23 pm

Changes proposed by: dpolayes

Are you completing this form on someone else's behalf?

Yes

Requestor:

Name	Extension	Email
Ann Verhoeven	3-1572	averhoev@gmu.edu

Effective Term: Fall 2019

Subject Code: MLAB - Medical Laboratory Science Course Number: 414

Bundled Courses:

Is this course replacing another course? No

Equivalent Courses:

Catalog Title: Molecular Detection of Infectious Disease

Banner Title: Molecular Detection Disease

Will section titles vary by semester? No

Credits: 1-4

Schedule Type: Lecture w/Lab

Hours of Lecture or Seminar per week: 2

Hours of Lab or Studio per week: 2

Repeatable: May be repeated within degree (RD) Max Allowable Credits: 10

Default Grade Mode: Undergraduate Regular

Recommended Prerequisite(s):

Recommended Corequisite(s):

Required Prerequisite(s) / Corequisite(s) (Updates only):

Registrar's Office Use Only - Required Prerequisite(s)/Corequisite(s):

And/Or	(Course/Test Code	Min Grade/Score	Academic Level)	Concurrency?

Registration Restrictions (Updates only):

Registrar's Office Use Only - Registration Restrictions:

Field(s) of Study:

Class(es):

Level(s):

Degree(s):

School(s):

In Workflow

1. MLAB Undergraduate Representative
2. SC Curriculum Committee
3. SC Associate Dean
4. Assoc Provost- Undergraduate
5. Registrar-Courses
6. Banner

Approval Path

1. 12/19/18 12:25 pm
Larry Rockwood (Irockwoo):
Approved for MLAB Undergraduate Representative

Catalog Description: This course examines the advances in using molecular methods to detect human infectious disease. Careful attention is given to the comparison of molecular technologies with traditional microbiology methods. Topics include molecular methods and applications, including PCR, sequencing, TMA, and PEGE; specimens of choice, sample preparation, Quality Control, primer selection; Molecular methods in selecting antimicrobial agents; molecular epidemiology, and target organisms: fungi, bacteria, parasites, and viruses.

Justification: A new concentration in Medical Laboratory Science (MLAB) is being offered. This class will be required for students who choose the concentrations offered at our affiliated program at Quest Diagnostics

Does this course cover material which crosses into another department? No

Learning Outcomes:

Attach Syllabus [Syllabus Mol Det of Infectious Disease-MLAB414.pdf](#)

Additional Attachments

Staffing: Quest Diagnostics

Relationship to Existing Programs: An Affiliate Program

Relationship to Existing Courses: None

Additional Comments:

Reviewer Comments

Key: 16281

Syllabus Molecular Detection of Infectious Disease

Instructor: Meghan Starolis, PhD.

Molecular Detection of Infectious Disease

This course examines the advances in using molecular methods to detect human infectious disease. Careful attention is given to the comparison of molecular technologies with traditional microbiology methods. Topics include molecular methods and applications, including PCR, sequencing, TMA, and PEGE; specimens of choice, sample preparation, Quality Control, primer selection; Molecular methods in selecting antimicrobial agents; molecular epidemiology, and target organisms: fungi, bacteria, parasites, and viruses.

Text:

Molecular Diagnostics: Fundamentals, Methods, and Clinical Applications, Lela Buckingham, 2nd edition

Grading:

Workbook completion: 50%

End of Course Test 50%

A = 90% and above

B = 80% - 89%

C= 70%- 79%

Failing: less than 70%

Students with less than 70% will be withdrawn from the program and subject to disciplinary action.

Course Agenda:

Detection and Identification of Microorganisms 1 Dr. Starolis

Detection and Identification of Microorganisms 2 Dr. Starolis

Detection and Identification of Microorganisms 3 Dr.

Detection and Identification of Microorganisms 4 Dr. Starolis

Detection and Identification of Microorganisms 5 Dr. Starolis

Detection and Identification of Microorganisms 6 Dr. Starolis

Review and Exam Harvey Vandenburg