COMU 096: Summer Health & Medicine Academy

Summer 2019 Syllabus

Class Time On-Campus: July 8 – 12, 15 - 18, 2018 (9am – 3:30pm)

On Line: July 23 – Aug 2, 2019

Course Directors: Sharon Mount MD, Professor of Pathology
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Office Hours: By Appointment

Course Summary and Goals

This course will expose students to the fascinating world of modern medicine and bioscience through active learning in labs, lectures, panel discussions, “flipped” classrooms, team based learning (TBL) sessions, demonstrations, and hospital visits. Students will learn in the University of Vermont (UVM) Larner College of Medicine facilities including the Clinical Simulation Laboratory as well as the Jeffords Building for laboratory experiments.

Experts in genomics, cancer research, medicine, nursing, public health, global health and allied health practices will engage with students on the latest advances in their fields. Students will interact with clinical and scientific faculty who train UVM medical students in the Larner College of Medicine, known for being one of the most competitive and successful medical schools in the country.

This course helps students discover their interests, learn about the latest advances in bioscience and molecular medicine, and develop an understanding of diverse medical and health science career paths that might be right for them.

Course Learning Objectives

Throughout this course, students will:

• Gain an appreciation for the complex and ever changing world of health & medicine.

• Identify career paths of interest within health & medicine, and further explore the required education and experience necessary to set those career paths in motion.

• Understand skills, education, and experience necessary through first-hand accounts by health and medicine professionals and independent research on the career paths of particular interest to the student.

• Practice critical reading, writing, and research skills in the context of a science-focused course, including introduction and practice with “Blackboard”, the computer system used at UVM (and many other universities).
• Develop a real-world understanding of the college experience, specifically how to balance the demands of college coursework with the social engagement opportunities found on campus.

• Engage in thought-provoking discussions with guest speakers, classmates, teaching assistants, and instructors and become familiar with “flipped classroom” and “team based learning” educational methods.

Readings

Students will be required to read either “Deadly Wandering” by Matt Richtel (2014) or “One Split Second: The Distracted Driving Epidemic- How It Kills and How We Can Fix It” by Vijay Dixit (2016) prior to the start of the course. “Deadly Wandering” was a Pulitzer Prize winning book was chosen for the University of Vermont as summer reading several years ago and is a gripping true story of a Utah teenager’s tragic car crash which resulted in one of the first texting and driving legal cases in the US. In addition, the book explains leading edge neurologic scientific findings on the impact of technology on our brains. “One Split Second” was written after the author lost his college age daughter in a car accident which resulted from distracted driving. Mr. Dixit has created a foundation to combat the distracted driving epidemic. All other readings will be posted on the course Blackboard site; no required text.

Blackboard

Assigned reading materials will be provided on Blackboard. Student assignments must be uploaded to Blackboard by the listed deadline. If you experience technical difficulties with Blackboard, please contact the UVM TechTeam at (802) 656-2604 or by email at techteam@uvm.edu. TAs will also be available during the on-campus component of the course.

Assignment Policy

You are held to the University’s Code of Academic Integrity (accessible here: https://www.uvm.edu/policies/student/acadintegrity.pdf). There is a zero tolerance policy for any kind of cheating or plagiarism.

Assignments must be submitted electronically to Blackboard only. Deadlines for assignments are listed on the course Blackboard site. Unless prior approval has been granted by the course director, late assignments will have points deducted as follows:

• <1 hr late: Less 10 percentage points
• 1-2 hrs late: Less 20 percentage points
• 2-3 hrs late: Less 30 percentage points
• >3 hrs late: No credit

Please plan accordingly. It is recommended that you upload your assignment to Blackboard at least 1 hour before it is due to ensure you have sufficient time in case of technical difficulties.

Grading Criteria

100 points total shall be earned as follows:

Details and due dates for each assignment are found on the course Blackboard site.

• 10 points: Library research assignment
• 10 points: Lab I & write-up assignment
• 10 points: Lab II write up assignment
• 10 points: Simulation lab assignment

• 10 points: Ultrasound demonstration assignment
• 10 points: Pathology Museum assignment

• 25 points: Final paper
• 15 points: Class participation

Attendance Policy

Given the importance of active discussion and activities in attaining the goals of the class, attendance is mandatory. Students must notify their TA contact of any University-approved absences prior to class when possible. Missing class will be reflected in the Class Participation component of the course grade.

Classroom Environment Expectations

Each student is expected to:

• Actively and thoughtfully participate in class discussions.
• Treat others in the class with respect and dignity.
• Complete assigned reading materials prior to class.
• Turn in assignments on time.
• Seek out assistance from TAs, faculty, and classmates when needed.
• Behave with academic honesty and honor.
• Arrive to all class sessions on time.
• Silence cell phones and minimize any other distractions in class.
• Put away laptops/phones when instructed in class.

Take advantage of this opportunity to learn as much as you can!

On Campus Course Schedule

• Subject to change- please reference Blackboard for updates and materials

• All assignments need to be submitted via Blackboard as a Word document or in a PDF file format.

Monday, July 8: INTRODUCTION/LIBRARY/DEADLY WANDERING

Objectives

• Introduce the course structure, expectations, faculty and TAs
• Introduction to UVM digital resources, Blackboard, how to get computer help!
• Flipped classroom, discussion of Deadly Wandering by Matt Richtel

Assignment

• Library research assignment/Distracted Driving
  Due Tuesday, July 9 by 10pm

Tuesday, July 9: DIGITAL AGE HEALTH CARE INDUSTRY, LAW, BUSINESS

Objectives

• Engage with consultants and entrepreneurs and other professionals whose careers intersect with health and medicine.
• Engage in medical simulation lab activities, CPR training, or pathology museum (groups rotate)
• Group 1: Simulation lab assignment
• Group 2: Pathology museum assignment
• Groups 3: Wet Lab- Missing Vector
• Group 4: Wet Lab- Lactose
  *Due Wednesday, July 10 by 10pm*

**Wednesday, July 10: BIOMEDICAL RESEARCH**

**Objectives**
• Define and discuss the scope of “Basic Science” as it pertains to health and medicine
• Learn about cutting edge biomedical research in cancer biology, regenerative medicine, genomic medicine, and pathology from research faculty in the College of Medicine
• Engage in medical simulation lab activities, biochemistry lab activities, or pathology museum (groups rotate)

**Assignment (please check your group # to determine which assignment is due)**
• Group 1: Pathology assignment
• Group 2: Simulation lab assignment
• Group 3: Wet Lab- Lactose
• Group 4: Wet Lab- Missing Vector
  *Due Thursday, July 11 by 10pm*

**Thursday, July 11: NURSING SCIENCE**

**Objectives**
• Understand the fundamentals of nursing science and how nursing is a critical component of health care
• Engage with nursing professionals to better understand different roles, responsibilities, and career paths within nursing
• Engage in Biochemistry lab activities, or ultrasound demonstration (groups rotate)

**Assignment: (please check your group # to determine which assignment is due)**
• Group 1, 2, 3, and 4: Ultrasound demonstration assignment

  *Due Fri July 12th by 10 pm*

**Friday, July 12: PUBLIC HEALTH**

**Objectives**
• Define public health and understand the enormous scope of this field
• Engage with the former Vermont Commissioner of Health (Dr. Jan Carney) as well as other professionals in the field.
• Participate in biochemistry lab or obtain CPR training certificate

**Assignment (please check your group # to determine which assignment is due):**
• Group 1 and 2: CPR (See schedule for assigned times)
• Group 3: Simulation Lab
• Group 4: Pathology Museum
Due Monday, July 15 by 10pm

Monday, July 15: THE FIELD OF MEDICINE

Objectives

- Learn how science serves as the backbone of medical education and practice
- Hear from a panel of physicians on their career paths, what they do within their specialties, and words of wisdom for students interested in pursuing a medical education and career path
- Engage in medical simulation lab activities, biochemistry lab activities, or pathology museum (groups rotate)

Assignment

- Group 1: Wet Lab- Missing Vector
- Group 2: Wet Lab- Lactose
- Group 3 & 4: CPR (See schedule for assigned times).

Due Tuesday, July 16 by 10pm

Tuesday, July 16: GLOBAL HEALTH

Objectives

- Explore the field of global health with introductory lecture, followed by interactive panel discussion
- Engage in medical simulation lab activities, pathology museum or ultrasound demonstration (depending on group)

Assignment

- Group 1: Wet Lab- Lactose
- Group 2: Wet Lab- Missing Vector
- Group 3: Pathology museum assignment
- Group 4: Simulation assignment

Due Wednesday, July 17 by 10pm

Wednesday, July 17: ALLIED HEALTH

Objectives

- Engage with professionals in health care such as dentists, physician assistants and hospital laboratory technicians to learn about their roles & responsibilities, backgrounds, and education & training that prepared them for their career paths
- Interact with a surgeon while watching an operation via live feed video

Assignment:

Be certain to have viewed “Emperor of all Maladies”!

Thursday, July 18: TEAM BASED LEARNING BASED ON VIDEO “EMPEROR OF ALL MALADIES” FEEDBACK, REFLECTION AND CONCLUSIONS

Objectives
Understand the history of cancer and become familiar with “team based learning”
Understand how a teaching hospital is organized by touring the UVM Medical Center
Reflect on the on campus course experience, including what you have learned from faculty, students, and professionals in health and medicine and feel comfortable with your research paper outline

Assignment:

- Complete the on line research paper (due August 2\textsuperscript{nd})
- Enjoy the summer!

**Off-Campus Schedule**

During the weeks following on-campus study, you will be expected to complete your final paper and turn it in on Blackboard. The research for this paper, and the submission of it, will require internet access. The final paper will be due Friday, August 2\textsuperscript{nd}.

*Reminder: Friday, August 2\textsuperscript{nd}: FINAL PAPER DUE by 10pm*

**Student Learning Accommodations**

In keeping with University policy, any student with a documented disability interested in utilizing accommodations should contact ACCESS, the office of Disability Services on campus. ACCESS works with students to create reasonable and appropriate accommodations via an accommodation letter to their professors as early as possible each semester.

Contact ACCESS: A170 Living/Learning Center; 802-656-7753; access@uvm.edu; [www.uvm.edu/access](http://www.uvm.edu/access)

UVM’s policy on Disability Certification and Student Support: [www.uvm.edu/~uvmppg/ppg/student/disability.pdf](http://www.uvm.edu/~uvmppg/ppg/student/disability.pdf)

**Religious Holidays**

Students have the right to practice the religion of their choice. If you need to miss class to observe a religious holiday, please submit the dates of your absence to me in writing by the end of the second full week of classes. You will be permitted to make up work within a mutually agreed-upon time.

**Academic Integrity**

The policy addresses plagiarism, fabrication, collusion, and cheating: [www.uvm.edu/~uvmppg/ppg/student/acadintegrity.pdf](http://www.uvm.edu/~uvmppg/ppg/student/acadintegrity.pdf)

**Code of Student Rights and Responsibilities**

[www.uvm.edu/~uvmppg/ppg/student/studentcode.pdf](http://www.uvm.edu/~uvmppg/ppg/student/studentcode.pdf)

**Promoting Health & Safety**

The University of Vermont's number one priority is to support a healthy and safe community:

*Center for Health and Wellbeing* [http://www.uvm.edu/~chwb/](http://www.uvm.edu/~chwb/)
Counseling & Psychiatry Services (CAPS) Phone: (802) 656-3340 C.A.R.E. If you are concerned about a UVM community member or are concerned about a specific event, we encourage you to contact the Dean of Students Office (802-656-3380). If you would like to remain anonymous, you can report your concerns online by visiting the Dean of Students website at http://www.uvm.edu/~dos/