**Mechanisms of Aging Professor, Vikas chandhoke**

**BIOLOGY 426-001 Friday, 10:30 AM - 1:10 PM, Online course**

**E-mail:** [**vchandho@gmu.edu**](mailto:vchandho@gmu.edu)**; Tel: 571-213-6060 (Mobile); Office Hours: By Appointment**

**SCHEDULE OF LECTURES:**

**WEEK 1.** Jan 29

Course overview

**WEEK 2.** Feb 5

Theories of aging, Free radical theory of aging.

**WEEK 3.** Feb 12

Theories of aging, caloric restriction.

**WEEK 4.** Feb 19

Cellular Senescence and aging

**WEEK 5.** Feb 26

Telomeres and telomere loss in relation to aging.

**WEEK 6.** March 5

**Presentation planning and review session**

**WEEK 7, March 12**

**Midterm Exam**

**WEEK 8.** March 19

Guest Lecture/New technologies and interventions for aging.

**WEEK 9.** March 26

External and Social factors effecting aging/**Class project presentation preparations**

**WEEK 10.** Apr 2

Class project Presentations begin

**WEEK 11.** Apr 9

Class project presentations

**WEEK 12.** April 16

Class project presentations

**WEEK 13.** April 23

Class project presentations//**Papers due**

**WEEK 14.** April 30

Class project presentations

**FINAL EXAM May 7, 10:30-1:15 pm**

**\* Classes will meet Virtually**

**Schedule of Classes:** Classes will begin promptly at 10:30 am Friday’s from January 29 through April 30 with Final Exam on May 7. This is an On Line course.

Spring Semester 2021 Calendar http://registrar.gmu.edu/calendars/spring-2021/

**Ethics Statement:** The strength of the university depends on academic and personal integrity. In this course, you must be honest and truthful. Ethical violations include cheating on exams, plagiarism, reuse of assignments, improper use of the internet and electronic devices, unauthorized collaboration, alteration of graded assignments, forgery and falsification, lying, facilitating academic dishonesty and unfair competition.

Office of Academic Integrity <http://academicintegrity.gmu.edu/honorcode/>

**Representative Reference Sources:**

Literature readings will be assigned from journals such as: Mechanisms of Ageing and Development, Experimental Gerontology, Science and Nature. There is no text for the course. Biochemical and cellular background knowledge needed to understand processes described in the assigned readings may be obtained from texts like: Berg, Tymoczko and Stryer’s, Biochemistry; Darnell, Lodish and Baltimore’s; Molecular Cell Biology, and Bioinformatics texts like; Bioinformatics: Sequence and Genome Analysis, by David W. Mount. Web based resources will be made available as appropriate via the course web site on Blackboard.

**Grades will be based on points obtained as follows:**

Midterm exam- 25%

Project Presentation - 25%

Paper- 20%

Class participation - 5%

Final exam- 25%