**Course Description and Syllabus**

**Course Information**

BMS 690 The Biology of Aging

Course description: This course presents an in-depth analysis of the biology of aging. Topics will include: theories of aging, experimental models used to study of aging and longevity, impact of oxidative stress in cell and organ function, adaptive responses, the metabolic syndrome of aging, cellular senescence, genetic instability and potential therapeutic strategies for prolonging health span.

Number of credit hours: 2

Prerequisites (previous courses, knowledge, and skills): none

General Education requirements satisfied (if applicable): none

**Faculty Information**

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| --- | --- |
| **Course Instructors:**  Ron Korstanje  Aric Rogers | **Course Faculty:** |

**Instructional Materials and Methods**

Thursday class is a lecture/discussion about a specific topic and the following Tuesday, students will present papers to initiate class discussion about this topic. List textbooks or other materials that will be needed for the class.

**Course Goals:**

The goal of this course is to motivate an interest among graduate students for problems in biology of aging and to prepare them for the growing demand for future generations of aging researchers.

**Grading and Course Expectations**

**Course Schedule:**

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| --- | --- | --- |
| **Week** | **Tuesday class** | **Thursday class** |
| 1 | What is aging and why study it? | Evolutionary perspective and theories of aging |
| 2 | Journal club | Conserved aging pathways |
| 3 | Journal club | Animal models: *C. elegans* [Dev. & Aging] |
| 4 | Journal club | Animal models: mice |
| 5 | Journal club | Animal models: emerging models |
| 6 | Journal club | Adaptive responses |
| 7 | Journal club | Cellular senescence |
| 8 | Journal club | Genetic instability |
| 9 | Journal club | Dietary restriction and intervention studies |
| 10 | Journal club | Therapeutic applications for healthy aging |

**Course Schedule Disclaimer (Disruption Clause):** In the event of an extended disruption of normal classroom activities, the format for this course may be modified to enable its completion within its programmed time frame. In that event, you will be provided an addendum to the syllabus that will supersede this version.

**Academic Honesty Statement:** Academic honesty is very important. It is dishonest to cheat on exams, to copy term papers, to submit papers written by another person, to fake experimental results, or to copy or reword parts of books or articles into your own papers without appropriately citing the source. Students committing or aiding in any of these violations may be given failing grades for an assignment or for an entire course, at the discretion of the instructor. In addition to any academic action taken by an instructor, these violations are also subject to action under the University of Maine Student Conduct Code. The maximum possible sanction under the student conduct code is dismissal from the University.

**Students with disabilities statement:** If you have a disability for which you may be requesting an accommodation, please contact Ann Smith, Director of Disabilities Services, 121 East Annex, 581-2319, as early as possible in the term.

**Sexual Discrimination Reporting**

The University of Maine is committed to making campus a safe place for students. Because of this commitment, if you tell a teacher about an experience of **sexual assault, sexual harassment, stalking, relationship abuse (dating violence and domestic violence), sexual misconduct or any form of gender discrimination** involving members of the campus, **your teacher is required to report** this information to the campus Office of Sexual Assault & Violence Prevention or the Office of Equal Opportunity.

**If you want to talk** **in confidence** to someone about an experience of sexual discrimination, please contact these resources:

For *confidential resources on campus*: **Counseling Center: 207-581-1392** or **Cutler Health Center: at 207-581-4000**.

For *confidential resources off campus*: **Rape Response Services:** 1-800-310-0000 or **Spruce Run**: 1-800-863-9909.

**Other resources:** The resources listed below can offer support but may have to report the incident to others who can help:

For *support services on campus*: **Office of Sexual Assault & Violence Prevention: 207-581-1406**, **Office of Community Standards: 207-581-1409**, **University of Maine Police: 207-581-4040 or 911**. Or see the OSAVP website for a complete list of services at <http://www.umaine.edu/osavp/>