

Syllabus for Selected Topics in DNA Repair and Mutagenesis - CGEN 6070.001

Recommended textbook is Friedberg et al., DNA Repair and Mutagenesis, ASM Press 2006.

Grades will be based on student participation and presentations; there are no exams. Grade scale is A, B, C, or F.

The course director, Dr. Wolfram Siede, can be contacted per phone (817-735-2037) or email (wsiede@hsc.unt.edu). His office is located at RES202G. If assistance is needed, the course director should be contacted.

Class topics

June 1	Lecture: Introduction to basic concepts
June 8	Lecture: Mutagenesis in prokaryotes
June 15	No class
June 22	Student presentation: roles of UmuC/D
June 29	Lecture: Mutagenesis in eukaryotes
July 6	Student presentation: Polymerase zeta and eta
July 13	Student presentation: Polymerase eta
July 20	Student presentation: PCNA and regulation
July 27	Student presentation: Other polymerases, antibody diversification

Students are required to attend every class. If a class is missed, special reading will be assigned.

In this year (2009), the topic of the class is mutagenesis with special emphasis on bypass of DNA lesions by specialized polymerases. Objectives are:

1. Review of principles of mutation research
2. Detailed discussion of mechanisms of DNA-damage-induced mutagenesis and its investigation
3. In-depth discussion of bypass polymerases and their mechanism with special emphasis on eukaryotic cells.

Evaluation of the course and its instructor by the students is a course requirement for five or more students. On-line evaluations will be available on the last day of the course.