

Cellular Signal Transduction Processes & Metabolic Regulation
BIOC 483/683
Spring Semester 2011

General Course Information

Instructor: Dr. Sangita Sinha, Assistant professor, Chemistry and Biochemistry.
E-mail: sangita.sinha@ndsu.edu; Office: IACC 364; Tel: 231-5658.

Office Hours: Fridays, 3:30-5:00 pm; or by appointment arranged via E-mail.

Method of Instruction: Three lecture hours per week.

Instructional material: Class lecture notes will be posted on blackboard at the end of every class. Reference materials will include reviews and primary literature available electronically from the NDSU library.

Prerequisite: Chem. 460 or equivalent.

Class schedule: Classes will be in Morrill 103 on Mon., Wed., & Fri. at 2:00 – 2:50 PM. First day of class is Jan. 12th, 2011 and the last day of class is May 6th, 2011. You are expected to attend each class. Changes to the posted class schedule, if any, will be announced in class or by E-mail. Various class materials will be posted on blackboard. It is your responsibility to ensure you check these media to stay current with the class.

Course aim: This is a senior undergraduate/graduate level course designed to educate students about the basic principles and chemical mechanisms by which cells sense, amplify and respond to extracellular signals. General principles that underlie these mechanisms, as well as selected examples that illustrate these principles, will be discussed.

Special needs: Any students who need special accommodations for learning or who have special needs are invited to share these concerns or requests with the instructor as soon as possible. Appropriate arrangements may be initiated by contacting the Disabilities Services Office (231-7198) or the Counseling and Disability Services Office (231-7671).

Academic responsibility: All work in this course must adhere to the Code of Academic Responsibility and Conduct as cited in the Code of Academic Responsibility. <http://www.ndsu.nodak.edu/policy/335.htm>

Assessment and Evaluation:

Performance will be evaluated as below:

Task	Format	Points
Exam 1	Multiple choice and short answer (1/2 pg) formats.	50
Exam 2	Multiple choice and short answer (1/2 pg) formats.	50
Exam 3	Multiple choice and short answer (1/2 pg) formats.	50
Class Attendance	Taken daily at start of class	10
Class Questions	Answering questions in class	5
Written paper	Review a signaling pathway 1) Importance / outline 2) Players 3) Chemistry + structures of a key player. 4) Regulation	25
Paper presentation	Oral presentation	10
Total		200

Graduate students will have a more advanced topic for their paper.

Final grades (A, B, C, D, and F) will be assigned on the basis of the distribution of the class scores on a curve.

Guaranteed cutoffs are A = 180; B = 160; C = 130; D = 100.

100 points and below is an F grade.