CELL + MOLECULAR BIOLOGY-CM (CM)

Courses

CM 501 Advanced Cell Biology Credits: 4 (4-0-0)
Course Description: Cell structure and organelle function.
Prerequisite: BZ 310.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

CM 502 Techniques in Molecular & Cellular Biology Credits: 2 (1-3-0)
Also Offered As: NB 502.
Course Description: Current methods in molecular and cellular neurobiology.
Prerequisite: (BIO 100 to 481 - at least 4 credits or BZ 100 to 481 - at least 4 credits or LIFE 100 to 481 - at least 4 credits) and (BC 100 to 481 - at least 4 credits and PH 100 to 481 - at least 4 credits).
Registration Information: Written consent of instructor. Must register for lecture and laboratory. Credit not allowed for both CM 502 and NB 502.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

CM 505 Nucleic Acids for Non-Life Scientists Credit: 1 (0-2-0)
Course Description: Basic molecular biology including nucleic acid structure, function and manipulation. Hands on experience in the common techniques used to quantify, quality control and manipulate nucleic acids with an emphasis on the polymerase chain reaction.
Prerequisite: None.
Registration Information: Written consent of instructor. This is a partial semester course. Credit not allowed for both CM 505 and CM 581A1.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

CM 506 Protein Basics for NonBiologists Credit: 1 (1-0-0)
Course Description: Basic concepts of protein biochemistry and applications to biomedical research.
Prerequisite: None.
Registration Information: Senior standing. Written consent of instructor. This is a partial semester course. Credit not allowed for both CM 506 and CM 580A1.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

CM 510 Introduction to Cell and Molecular Biology Credit: 1 (1-0-0)
Course Description: Overview of CMB program and research opportunities; enhances writing and oral communication skills.
Prerequisite: None.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

CM 520 Proteolytic Regulation of Cellular Processes Credits: 3 (2-0-1)
Course Description: Functions of proteolytic pathways in the regulation of eukaryotic cellular processes, such as mitosis, apoptosis, signal transduction and gene regulation.
Prerequisite: CM 501.
Registration Information: Must register for lecture and recitation.
Term Offered: Spring (even years).
Grade Mode: Traditional.
Special Course Fee: No.

CM 595 Independent Study Credits: Var[1-18] (0-0-0)
Course Description:
Prerequisite: None.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

CM 601 Responsible Conduct of Research in CMB Credit: 1 (0-0-1)
Course Description: Key aspects of responsible conduct of research and ethical considerations in cell and molecular biology.
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Registration Information: Enrollment in the CMB graduate program.
Term Offered: Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CM 640 Creative Science Writing Credits: 3 (3-0-0)
Course Description: Consideration of creative writing techniques and their relevance to traditional science/nature writing.
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Term Offered: Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CM 666 Science and Ethics Credits: 3 (3-0-0)
Also Offered As: PHIL 666.
Course Description: Ethical issues of research on humans and animals; biosafety; fraud and deception in science; genetic engineering.
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Registration Information: Credit not allowed for both CM 666 and PHIL 666.
Term Offered: Spring (odd years).
Grade Mode: Traditional.
Special Course Fee: No.

CM 699 Thesis Credits: Var[1-18] (0-0-0)
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.
CM 700 Critical Analysis of Scientific Literature Credit: 1 (0-0-1)
Course Description: Presentation and discussion of current literature of cell and molecular biology. Content varies each semester to include the major focus groups.
Prerequisite: BC 565 and CM 510.
Restriction: Must be a: Graduate, Professional.
Registration Information: May be repeated for a maximum of 4 credits.
Terms Offered: Fall, Spring.
Grade Mode: Instructor Option.
Special Course Fee: No.

CM 710 Techniques in Molecular Biology and Genetics Credits: 3 (0-4-1)
Also Offered As: BSPM 710.
Course Description: Genetic manipulation of bacteria, bacteriophage, and yeast including experiments in molecular cloning and gene expression.
Prerequisite: BC 463 or BZ 346 or BZ 350 or MIP 450 or SOCR 330.
Restriction: Must be a: Graduate, Professional.
Registration Information: Must register for laboratory and recitation. Credit not allowed for both BSPM 710 and CM 710.
Term Offered: Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CM 701D Topics in Cell and Molecular Biology: Radiation Cytogenetics Credit: 1 (1-0-0)
Course Description:
Prerequisite: (BC 403 and MATH 255) and (CM 501).
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CM 701I Topics in Cell and Molecular Biology: Planning Research and Grant Proposals Credits: 2 (2-0-0)
Course Description:
Prerequisite: (BC 403 and MATH 255) and (CM 501).
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CM 702B Methods in Cell and Molecular Biology: Mammalian Cell Culture Techniques Credit: 1 (0-3-0)
Course Description:
Prerequisite: (BC 403) and (CM 501).
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CM 702C Methods in Cell and Molecular Biology: Immunochemical Techniques Credit: 1 (0-3-0)
Course Description:
Prerequisite: (BC 403 and MATH 255) and (CM 501).
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CM 702D Methods in Cell and Molecular Biology: Radiation Cytogenetics Credit: 1 (0-3-0)
Course Description:
Prerequisite: (BC 403) and (CM 501).
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CM 703 Seminar Credit: 1 (0-0-1)
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

CM 792 Cell and Molecular Biology Seminar Credit: 1 (0-0-1)
Course Description: Experience research presentations from local, national and international scientists working in areas relevant to cell and molecular biology. Each seminar is accompanied by a student led pre-seminar group discussion. Engage in selection and invitation of speakers for the following semester and actively participate in hosting the speaker.
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring, Summer.
Grade Mode: S/U Sat/Unsat Only.
Special Course Fee: No.

CM 795 Independent Study Credits: Var[1-18] (0-0-0)
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

CM 799 Dissertation Credits: Var[1-18] (0-0-0)
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.