

Keck School of Medicine of USC

PATH 553 Methods in Cellular and Clinical Pathology
Fall—Wednesday—1-3:30pm
Location: HMR 202, Pathology Library

Instructor: Dr. Florence Hofman
Office: HMR 315A
Office Hours: Available by appointment
Contact Info: hofman@usc.edu, (323) 442-1153

For Blackboard questions and IT Help: Lisa Doumak
Office: HMR 209
Office Hours: 8:00 am – 4:00 pm
Contact Info: pathgrad@usc.edu, (323) 442-1168

Course Information:

Advanced techniques in cell biology, protein analysis and immunochemistry; A practical approach to acquaint new graduate students with current methodologies and applications used in biomedical research.

Course Goals:

The primary objectives of this MS program is to provide the necessary theoretical and practical training in experimental pathology. Goal of the course is to expose the student to a wide range of current techniques and their uses in Biomedical Research.

Course Correspondence:

All correspondence between instructors and students will be made using email. All information regarding lectures, reading assignments, will be posted on the Blackboard web site for PATH 553.

Class Format:

This course consists of one 2 ½ hour session per week. The lecture schedule with assigned lecturers are listed under the section labeled "**SCHEDULE OF LECTURES AND EXAMS**". Each session is led by a different lecturer. Each lecturer is responsible for assigning the reading material for the students for their own particular session. It is expected that the students should spend approximately 6 hours of outside reading per week for this course. No outside assignments other than reading will be given.

Exams:

There will be a total of 2 exams and will consist of short essay questions based on the material for the lectures preceding the exam. The exams will take place during the regular scheduled time of 1:00 – 3:30 pm.

Exam Dates:

See "Schedule of Lectures and Exam Dates".

Grading Breakdown:

Each student will be graded based on the combined results of the midterm and final exam.

Assignment	Points	% of Grade
Midterm Exam	100	50
Final Exam	100	50
TOTAL	200	100

Statement for Students with Disabilities

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to TA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. Website and contact information for DSP:

http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html, (213) 740-0776 (Phone), (213) 740-6948 (TDD only), (213) 740-8216 (FAX) ability@usc.edu.

Statement on Academic Integrity

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles. *SCampus*, the Student Guidebook, (www.usc.edu/scampus or <http://scampus.usc.edu>) contains the University Student Conduct Code (see University Governance, Section 11.00), while the recommended sanctions are located in Appendix A.

Emergency Preparedness/Course Continuity in a Crisis

In case of a declared emergency if travel to campus is not feasible, USC executive leadership will announce an electronic way for instructors to teach students in their residence halls or homes using a combination of Blackboard, teleconferencing, and other technologies.

SCHEDULE OF LECTURES AND EXAMS

	Topics/Daily Activities	Lecturer
Week 1 Aug. 23	Immunohistochemistry and in Situ Hybridization	Dr. F. Hofman; Dr. S.R Shi
Week 2 Aug. 30	Animal Experimentation	Dr. D. Casebolt
Week 3 Sept. 6	Analytical Subcellular Fractionation	Dr. A. Mircheff
Week 4 Sept. 13	Proteomics: Applications to Biomedical Research	Dr. R. Gellibolian
Week 5 Sept. 20	Purification of Macromolecules Using Affinity Chromatography	Dr. A. Imam
Week 6 Sept. 27	Determination of Telomeric Length and Telomerase Activity	Dr. A. Imam
Week 7 Oct. 4	Mid-term Exam	Dr. F. Hofman
Week 8 Oct. 11	Radiohalogenation of Proteins and Bioconjugation Techniques	Dr. L. Khawli
Week 9 Oct. 18	Electrophysiology	Dr. R. Chow
Week 10 Oct. 25	Modern Light Microscopy	Dr. R. Chow
Week 11 Nov. 1	Cell Adhesion Molecules	Dr. R. Widelitz
Week 12 Nov. 8	Understanding Tissue Pharmacokinetics (PK) of Biotherapeutics : Concepts, Approaches, Techniques and Applications	Dr. Leslie Khawli
Week 13 Nov. 15	Drug Development in Biotechnology: A Drug from Research to Patients	Dr. Leslie Khawli
Week 14 Nov. 22	No Class – Thanksgiving Holiday	
Week 15 Nov. 29	Bioinformatics Analysis of Genes and Gene Sets	Dr. Y-B Chen; Dr. Meng Li
Dec. 6	Final Exam	Dr. F. Hofman

CONTACTS FOR LECTURERS

Lecturer	Email address
Dr. F. Hofman	hofman@usc.edu
Dr. D. Casebolt	Casebolt@usc.edu
Dr. Y-B Chen	yibuchen@usc.edu
Dr. R. Chow	rchow@usc.edu
Dr. R. Gellibolian	rgellibolian@yahoo.com
Dr. A. Imam	Si_851@usc.edu
Dr. L. Khawli	lkhawli@usc.edu
Dr. Meng Li	mengli2@usc.edu
Dr. A. Mircheff	amirchef@usc.edu
Dr. S.R Shi	ssh@usc.edu
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