

**Biology 3302-001, Tissue Culture with Lab, Spring 2010**  
**Mondays 2:30-5:30 pm, Room ELAB 325**

**Instructor:** Dr. Malgosia Wilk, M.D., Ph.D. (M.A. Wilk-Blaszczak)

**Office:** Life Sciences Bldg. #353

**Laboratories:** 350/354, Life Science

**Office Hours:** Mon and Wed 11-1:00 pm or by appointment

**Phone:** (817) 272-7424

**Email:** [wilk@uta.edu](mailto:wilk@uta.edu)

**Web site:** <http://www.uta.edu/biology/wilk>

**Course Prerequisites:** Graduate enrollment in Biomed. Eng. MS/BS program or instructor approval for Biology majors.

**Required Textbook:** *Basic Cell Culture ed. J. M. Davis 2<sup>nd</sup> ed.*

Additional materials will be handed out in class.

**Student Learning Outcomes:**

This course focuses on the hands-on knowledge of animal and plant tissue culture for biomedical and biotechnology research. Upon completion of this course students should be proficient in basic cell propagation techniques, selected protocols in cell imaging and cell based assays.

**Lab schedule** will be posted and updated on <http://www.uta.edu/biology/wilk/classnotes/>

Procedures to be performed in class include

**Cell culture lab and basic procedures**

Cell culture lab

    Sterile techniques

    Light microscopy

General procedures

    Cell culture maintenance – adherent and nonadherent cells

**Specialized cell types**

Primary tissue culture

Cell lines for biomedical and biotechnology research

Neuronal cells (role of substrate in cell adhesion)

Plant cell culture

    Callus formation

    Organ differentiation

**Special techniques**

Cell quantification and viability studies

Cryopreservation

Cell imaging

    Fluorescent staining

Cell death and apoptosis assays

ELISA

DNA extraction

**Exams:**

Grades will be based on one theory exam (Apr 26th), lab grade and homework including short presentations, according to the formula:

Exam (25 short answer questions)	30%
Lab grade	50%
Notebook	10%
Homework	10%
<b>Total</b>	<b>100%</b>

Labs will be graded based on difficulty and importance of the procedures performed. Points will be awarded for a successful completion of the procedure, not the attendance. **Any absences will result in loss of points for the lab and therefore lower your grade.** Please schedule your appointments around class schedule. A notebook is required for this class. There will be a grade for your notebook.

Grades: A = 90-100; B = 80-89; C = 70-79; D = 60-69; F = below 60.

Makeup exams (theory only) will only be given for medical reasons, or emergency situations. Incomplete grades may be assigned for a course if, in the opinion of the instructor, there are extenuating documented circumstances which prevent the student from completing the required work. The incomplete must be removed by the end of the final examination period of the following semester, excluding the summer session, for the student to receive credit for the course. If the incomplete is not removed during the allotted time period, it will revert automatically to an F.

**Attendance:**

Attendance at ALL labs is absolutely mandatory. **Missed labs CANNOT be made up** due to the nature of the experiments. You will lose points for the missed classes.

UT Arlington has adopted MavMail (e-mail) as an official means of communication with students. Please check MavMail regularly for last minute communications about class/protocols etc. Further information regarding your student email account can be found at: <http://www.uta.edu/oit/email/>

**Mandatory Online Safety Training:**

This is a lab course and you have to do mandatory online training due by census date Feb 3<sup>rd</sup>

1. Go to <http://www.uta.edu/training>.
2. Log on using your network log-on ID and password (what you use to access email). If you do not know your NetID or need to reset your password, visit <https://webapps.uta.edu/oit/selfservice/>.
3. The available courses for completion will be listed under "Training I'm Enrolled In". Complete the course entitled 'Student Lab Safety Training – General.' \*\*\*NOTE: If you completed Wet, Dry or Biology Lab Safety Training course last semester for another class, that training is still applicable until the end of this academic year. Please follow instructions in #4 to print the certification page for your TA.
4. Go to 'Training I've Completed' and print the displayed page for your TA. Verify that it shows clearly your name, and that 'General, Wet, Dry or Biology' training is completed/passed and the date when the training was completed. If you have just completed the training but it is not updated on the 'Training I've Completed' page, please log out of the system and log back in. If the training still does not show up on this page, call the Helpline at 817-272-5100.
5. If you were enrolled in a course with a lab last semester and did not complete the training or if you do not see training for this academic year listed, email [compliance@uta.edu](mailto:compliance@uta.edu) providing your name, a contact phone number, NetID and course (e.g. BIOL 1441-005) and request the appropriate training for your course.
6. Students who have not completed the training by census date may be dropped from the lab (and consequently the lecture).

7. Lab Safety Training is required to be completed once every academic year. Training completed in the Fall semester is valid for the Fall, Spring and Summer sessions. It is your responsibility to print your training certification page and turn it in each semester to your TA for each course with a lab you are enrolled in.

*For training specific questions, contact the Environmental Health and Safety office at 817-272-2185. For technical assistance with the training, please contact the Office of Institutional Compliance at 817-272-5100 or email [compliance@uta.edu](mailto:compliance@uta.edu)*

**Drop Policy:**

Per university policy, it is the student's responsibility to initiate withdrawal from this course if they are doing poorly. Any student may withdraw with an automatic "W" at any time from the beginning of the semester to Apr 2<sup>nd</sup>. If you decide to drop this course (or any other, for that matter) you must obtain a drop slip from the departmental undergraduate advisors office (for Biology, the advisor is Ms. Jane Pugh, Room 346 Life Science or you may go to the main office in the Biology Department 337 Life Science). Please fill it out, have the instructor of the course you wish to drop sign the slip and return it to the advisor's office or the Biology Office.

**Drop for non-payment of tuition:** Payment must be received by the term due date of January 13, 2010 or your registration will be cancelled. If your registration is cancelled for non-payment, you may reregister for classes but only if seats are available.

**Bomb Threats:** If anyone is tempted to call in a bomb threat, be aware that UTA will attempt to trace the phone call and prosecute all responsible parties. Every effort will be made to avoid cancellation of presentations/tests caused by bomb threats. Unannounced alternate sites will be available for these classes. Your instructor will make you aware of alternate class sites in the event that your classroom is not available

**Student Support Services:** The University supports a variety of student success programs to help you connect with the University and academic success. They include learning assistance, development education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 for more information and appropriate referrals.

**After Hours Safety Escort** The Sam Mav Escort service provides a service to assist students, faculty, staff and campus visitors to reach their destinations after regular business hours. The hours of service are 7:00 p.m. to 1:00 a.m., Sunday through Saturday. 817-272-3381

**Final Review Week:** A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabi. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week.

**Academic Dishonesty:** It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University. "Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an

examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts."

**Americans with Disabilities Act:**

The university of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation: reference Public Law 93112--The Rehabilitation "Act of 1973 as amended. With the passage of new federal legislation entitled Americans with Disabilities Act - (ADA), pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide "reasonable accommodation" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty at the beginning of the semester and in providing authorized documentation through designated administrative channels.