EE 5388 Lasers
Spring Semester 2008
Monday/Wednesday 1:00–2:20 pm, NH Room 108

Instructor: Michael Vasilyev, Asst. Prof.  Office: NanoFAB, Room 220
Office Hours: MW, 2:30 pm–3:50 pm  Phone: (817) 272-1224
Instructor Website: http://www-ee.uta.edu/Vasilyev  Mailbox: Nanofab (2nd floor)
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Reference Texts: 1) “Lasers,”
2) “Fundamentals of Photonics,”
3) “Optical Electronics in Modern Communications,”
4) “Quantum Electronics,”
5) “Introduction to Fourier Optics,”
(These books are on reserve in Science and Engineering Library.)

Course Learning Goals/Objectives: Learn the principles and applications of lasers.

Course Description: Propagation of optical rays and waves, Gaussian laser beams, laser resonators; active nanoparticle in a microcavity, atomic systems, lasing and population inversion, laser amplifiers, practical continuous-wave and pulsed lasers, mode locking, Q-switching, and applications of lasers.

Tentative topic schedule:
- Fields and Waves
- Optical Resonators
- Single Emitter in a Microcavity
- Fundamentals of Lasers
- Q-switching and Mode-Locking
- Optical Propagation and Diffraction
- Gaussian Beams
- Thin-Lens Imaging
- Optical Signal Processing

Course Evaluation and Final Grade:
- Quiz 10%
- Term paper 50%
- Final exam 40%
Attendance Policy: Mandatory

Drop Policy: As per University guidelines. See the Registrar’s Bulletin or the University Calendar in the front part of the UTA catalog for drop dates.

Student Evaluation of Teaching
Students will be asked to complete instructor/course evaluation forms at the end of the semester.

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.

If you require an accommodation based on disability, I would like to meet with you in the privacy of my office, during the first week of the semester, to make sure you are properly accommodated.

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.” (Regents’ Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22).

ANY CHEATING WILL RESULT IN SEVERE PENALTIES.

The University of Texas at Arlington supports a variety of student success programs to help you connect with the University and achieve academic success. They include learning assistance, developmental 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.