

OPTICAL SCIENCES COURSES

Undergraduate Courses

200.....	Light, Color and Vision (3) Spring.....	Nofziger
201R.....	Geometrical and Instrumental Optics I (3) Fall, P, MATH 125, 129 PHYS 141, MSE110.....	Dereniak
201L.....	Geometrical and Instrumental Optics Lab I (1) Fall, P, CR 201R.....	Nofziger
202R.....	Geometrical and Instrumental Optics II (3) Spring, P, OPTI 201R.....	Greivenkamp
202L.....	Geometrical and Instrumental Optics Lab II (1) Spring, P, CR OPTI 202R.....	Nofziger
240.....	Semiconductor Physics & Lasers (3) Spring, P, Phys241, CR Math 254.....	Fallahi
280.....	Computer Programming Workshop (1) Spring.....	Pau
310.....	Physical Optics I (3) Fall, P, MATH 223, 254, PHYS 241, OPTI 280.....	Swartzlander
330.....	Physical Optics II (3) Spring, P, OPTI 310.....	Tyo
340.....	Optical Design (3) Spring, P, OPTI 201R, 202R, 310.....	Dereniak
360.....	Electronics for Opt. Engr. and Scientists (3) Fall, P, PHYS 241.....	Shoemaker
370.....	Lasers and Photonics (3) Spring, P, OPTI 240, OPTI 310.....	Kueppers
380A.....	Intermediate Optics Laboratory I (1) Fall, P, CR OPTI 310, 370.....	Pau
380B.....	Intermediate Optics Laboratory II (1) Spring, P, CR OPTI 330, 340, 360.....	Nofziger
400.....	Radiometry, Sources and Detectors (3) Fall, P, OPTI 201R+L, 360, 380B or equiv.	Thome
404.....	Optical Spectroscopy of Materials (3) Spring, P, Phys 141, Math 223, MSE 110, MSE 320..	Potter
414.....	Optical Instrumentation (3) Fall <07, 09>, P, OPTI 340.....	Dereniak
414A (ECE).....	Photovoltaic Solar Energy Systems (3) Spring.....	Kostuk
415.....	Optical Specifications, Fabrication & Testing (3) Fall, P, OPTI 201R, 202R, 310, 330, 340	Burge
415L.....	Optical Specifications, Fabrication & Testing Lab (1).....	Burge
421.....	Introductory Opto-Mechanical Engineering (3) Fall.....	Burge
421L.....	Introductory Opto-Mechanical Engineering Laboratory (1) Fall.....	Burge/Parks
423.....	Optomechanical Design and Analysis (3) Spring, P, OPTI 421.....	Burge
423L.....	Optomechanical Design and Analysis Lab (2) Spring.....	Burge/Parks
424.....	Optical Systems Engineering (3) Spring.....	Burge
425 (MSE).....	Sol-Gel Science (3) Fall.....	Loy
430 (ECE).....	Optical Communication Systems (3) Spring, P, SIE 305, ECE 340, 352 & 381 or equiv.....	Kueppers
434 (MSE).....	Electrical and Optical Properties of Materials (3) Fall <07, 09>, P, PHYS 241.....	Potter
435.....	Visual Optics (3) Fall, P, OPTI 202R, 330.....	Schwiegerling
440 (PHYS).....	Medical Physics (3) Fall, P, Phys103 or Phys132 or Opti330.....	Roehrig
471A.....	Adv. Optics Laboratory (2) Fall, P, OPTI 330, 360, 370, CR 400.....	Chipman
471B.....	Adv. Optics Laboratory (2) Spring, P, OPTI 471A.....	Hua
473 (PHYS).....	Atomic Spectroscopy for Experimentalists (3) Fall.....	Bickel
474 (PHYS).....	Atomic Physics for Experimentalists (3) Spring.....	Bickel
487.....	Fiber Optics Laboratory (3) Spring, P, ECE 456 or consent of instructor.....	Kostuk
489.....	Optics Outreach (1) Fall, Spring.....	McCollough
490 (REM).....	Remote Sensing for the Study of Planet Earth (3) Spring.....	Huete/Yool
Engr498A.....	Cross-disciplinary Design (3) Fall.....	Pine
Engr498B.....	Cross-disciplinary Design (3) Spring.....	Pine

Graduate Courses

501.....	Electromagnetic Waves (3) Fall, P, PHYS 241, MATH 223.....	Mansuripur
502.....	Optical Design and Instrumentation (3) Fall, P, PHYS 142, 241.....	Greivenkamp
504 (MSE).....	Optical Spectroscopy of Materials (3) Spring.....	Potter
505R.....	Diffraction and Interferometry (3) Spring, P, Opti 501, 512R or 604.....	Milster
505L.....	Fundamentals of Physical Optics Lab (1) Spring, P, OPTI 501 or 505R.....	Milster
507.....	Solid-State Optics (3) Fall, P, PHYS 371 or OPTI 511R.....	Peyghambarian
508.....	Probability and Statistics in Optics (3) Spring, P, OPTI 501.....	Kupinski
509.....	Optical Design and Instrumentation II (3) Spring, P, OPTI 502.....	Thome
510R.....	Photonics (3) Spring, P, OPTI 501, 505R, 507, 511R.....	Pau
510L.....	Fundamentals of Applied Optics Lab (1) Fall, P, OPTI 509.....	Burge
511R.....	Optical Physics & Lasers (3) Spring, P, OPTI 501.....	Jones
511L.....	Lasers and Solid-State Devices Lab (1) Fall, P, OPTI 511R, 507.....	Jones
512R.....	Linear Systems, Fourier Transforms (3) Fall, P, MATH 223, PHYS 142, 241.....	Tyo
512L.....	Mathematical Optics Lab (1) Fall, Spring, P, OPTI 512R or 604 + CSC 227 or SIE 270.....	Shoemaker

513R Optical Testing (3) Fall, P, OPTI 505R Wyant
 513L Optical Testing Lab (1) Fall, P, CR OPTI 513R Wyant

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514A (ECE)..Photovoltaic Solar Energy Systems (3) Spring Kostuk
 515..... Optical Specifications, Fabrication & Testing (3) Fall Burge
 515L Optical Specifications, Fabrication & Testing Lab (1) Fall Burge
 517..... Lens Design (4) Fall, P, OPTI 502, 509..... Sasian
 518..... Introduction to Aberrations (3) Spring, P, OPTI 502 Sasian
 521..... Introductory Opto-Mechanical Engineering (3) Fall Burge
 521L..... Introductory Opto-Mechanical Engineering Laboratory (1) Fall Burge/Parks
 523..... Optomechanical Design and Analysis (3) Spring, P, OPTI 521 Burge
 523L..... Optomechanical Engineering Lab (2) Spring..... Burge/Parks
 524..... Optical systems Engineering (3) Spring..... Burge
 525 (MSE) ... Sol-Gel Science (3) Fall Loy
 527..... Holography and Diffractive Optics (3) Fall, P, OPTI 502, 505R..... Kostuk
 530 (ECE) Optical Communication Systems (3) Spring, P, SIE 305, ECE 340, 352 & 381 or equiv. Kueppers
 531..... Image Processing Lab for Remote Sensing (3) Fall Thome
 532 (ECE) Digital Image Analysis (3) Fall, P, ECE 340 or OPTI 512R (or instructor consent)..... Rodriguez
 533 (ECE) Digital Image Processing (3) Fall, P, ECE 340, 503, 529 or OPTI 512R Rodriguez
 534 (MSE).... Advanced Topics in Optical & Electronic Materials (3) Spring <08, 10>..... Potter
 535..... Visual Optics (3) Fall, P, OPTI 502, 512R Schwiegerling
 536..... Introduction to Image Science (3) Spring Barrett/Gmitro
 537..... Imaging Physics and Devices (3) Fall, P, OPTI 501, 511R or equivalent Barrett/Furenlied
 539..... Early Stage Technology Start-up (3) Fall..... Descour
 540 (PHYS) .. Medical Physics (3) Fall, P, PHYS103 or 132 or OPTI 330 Roehrig
 541..... Introduction to Lasers (3) Fall, P, OPTI 511R..... Maes
 543..... Quantum Mechanics for Optical Physics (3) Fall, P, PHYS 371 or equiv Anderson
 544..... Foundations of Quantum Optics (3) Spring P, OPTI 543..... Khitrova
 546..... Physical Optics (3) Spring P, OPTI 501..... Wright
 548..... Optical Properties of Solids (3) Spring P, OPTI 501, 543..... Binder
 550..... Fundamentals of Remote Sensing (3) Spring..... Thome
 553..... Elements of Nonlinear Optics (2) Fall <07, 09>, P, OPTI 501, 544 Wright
 561 (PHYS) ... Physics of Semiconductors (3) Fall P, OPTI 507 or PHYS 460, 570a,b..... Binder
 563..... Photoelectronic Imaging Devices (3) Spring <08, 10>, P, PHYS 241..... Roehrig
 566..... Optical Detectors & Detector Systems (3) Spring <07, 09>, P, OPTI 507 and 509 Dereniak
 573 (PHYS) ... Atomic Spectroscopy for Experimentalists (3) Fall Bickel
 574 (PHYS) ... Atomic Physics for Experimentalists (3) Spring, P, PHYS 573 Bickel
 575..... Optical Thin Films (3) Spring <08, 10>, P, OPTI 505R..... Macleod
 576..... Thin Film Optics (3) Fall Falco
 578 (PHYS) ... Laser Spect & Atomic Structure (2) Fall Cronin
 578X WDM Components & Systems (2) Fall <07, 09> Fallahi
 583 Computational Optics (3) Fall Kolesik
 586 Polarization in Optical Design (3) Fall, P, OPTI 502..... Chipman
 586L..... Polarization in Optical Design (1) Fall..... Chipman
 587..... Fiber Optics Laboratory (3) Spring Kostuk
 588..... Introduction to Display Science & Technology (3) Fall, P, OPTI 502..... Hua
 589..... Optics Outreach Labroatory (1) Fall, Spring McCollough
 590 (REM).... Remote Sensing for the Study of Planet Earth (3) Spring Huete
 595A Current Subjects in Optics--Colloquium (1) Fall, Spring Staff
 596C Aberrated Imaging and Propagation (3) Fall, P, OPTI 502, 509 Mahajan
 596DX..... Imaging and Optics Fund. in Adv Lithography (2) Fall <07, 09> P, OPTI 502, 505R, 512R . Flagello
 597A Optical Shop Practices (3) Spring P, OPTI 201R or 502 Sasian
 604..... Math. Methods for Optics (3) Fall, P, MATH 223, PHYS 142, 241 <07, 09> Clarkson
 623..... Polarized Light & Polarimetry (3) Spring..... Chipman
 626..... Diode Lasers and Opto-Electronics (3) Spring <07, 09> P, OPTI 501..... Fallahi
 630..... Biomedical Optics & Biophotonics (3) Fall..... Gmitro/Utzinger/Barton
 632 (ECE).... Advanced Optical Communication Systems (3) Fall..... Djordjevic
 634 (ECE).... Computational Sensing: Spectroscopy (3) Spring Gehm
 636..... Noise in Imaging Systems (3) Fall <08, 10>, P, OPTI 508, 512R..... Kupinski/Clarkson
 637..... Principles of Image Science (3) Spring <08, 10>, P, OPTI 512R, 508 Clarkson
 638..... Advanced Medical Imaging (3) Spring, P, OPTI 512R or equivalent Gmitro/Trouard/Furenlied
 646..... Introduction to Quantum Information and Computation (3) Spring <07, 09> Jessen

648.....	Advanced Optical Physics (3) Spring <08, 10>, P, OPTI 544.....	Jessen
656A (ATMO)	Atmospheric Radiation and Remote Sensing A (3) Fall.....	Herman
656B (ATMO)	Atmospheric Radiation and Remote Sensing B (3) Fall.....	Kursinski
677.....	Microfabrication in Opto-Electronics (2) Fall <08, 10>.....	Fallahi
680.....	Microcomputer Interfacing in the Optics Lab (3) Fall <07, 09> P, CSC 127 or equivalent.....	Shoemaker
689X.....	Introduction to Hamiltonian Optics (1) Fall <07, 09>.....	Burge
696A.....	Advanced Lens Design Seminar (2) Fall <07, 09>, P, OPTI 517.....	Sasian
696B.....	Practical Optics Seminar (1) Fall <07, 09>.....	Burge
696C.....	Practical Optics (1) Spring.....	Burge
696D.....	Practical Optics: Engineering Optical Systems (1) Fall <08, 10>.....	Burge