

New Course Code and Title	Optical Materials	
Details of Course	<p>Summary of course content <i>(please note that this information provided will also be uploaded to the web for viewing at large)</i></p> <ul style="list-style-type: none"> ➤ Basics of Optics ➤ Optical Properties of Dielectric Materials ➤ Optical Properties of Metals ➤ Optical Properties of Semiconductors ➤ Surface Plasmon Polariton ➤ Localized Surface Plasmon Resonance ➤ Luminescent materials 	
	<p>Rationale for introducing this course</p> <p>There are considerable interests in using optical materials in green technologies, biosensing, and defense. It's important that graduate students in materials are exposed to this topic</p>	
	<p>Aims and objectives</p> <p>To introduce students to the growing field of optical materials To offer the basis of optics, plasmonics, and optoelectronics</p>	
	<p>Recommended background courses or equivalent</p> <p><i>MS 2018 (Electronic, Magnetic & Optical Properties of Materials)</i> <i>MH 2811 (Math II)</i></p>	
Assessment	<p><i>Example</i></p> <p><i>Participation and Attendance</i></p> <p><i>Continue Assessment</i></p> <p><i>Project Assignment</i></p>	<p><i>20%</i></p> <p><i>40%</i></p> <p><i>40%</i></p>
	<p>Total:</p>	<p>100 %</p>
<p>To be offered with effect from (state Academic Year and Semester)</p>	<p><i>Semester 2, AY2019/2020</i></p>	
<p>Cross Listing (if applicable)</p>	<p><i>N/A</i></p>	

Prerequisites (if applicable)	N/A
Preclusions (if applicable)	N/A
Mode of Teaching & Learning (Lectures, regular tests, Q&A, problem-based learning)	<i>Lectures, Q&A, problem-based learning</i>
Basic Reading List <ul style="list-style-type: none"> • Compulsory Reading • Supplementary Reading 	<p>N/A</p> <p><i>Optics, Hecht, (2002 4th Ed.) Pearson</i> <i>Fundamentals of Photonics, Saleh and Teich, (2007 2nd Ed), Wiley</i> <i>Plasmonics, Fundamentals and Applications, Maier, (2007) Springer</i> <i>Optoelectronics: An introduction, Wilson and Hawkes (1998, 3^d Ed) Prentice Hall Europe</i></p>
Maximum Class Size	20
Hours of Contact/Academic Units	<i>3 hours / week, 13 weeks (39 hours)</i> 3 AU
Workload Per Week (The workload for a 3-AU course must add up to 39 hours of contact hours)	<p>Lecture hours per week 2.5 Tutorial hours per week 0.5</p> <p>Assignments, reading, etc.</p> <p>1) Students are required to read papers distributed every other week for discussions in class.</p> <p>2) One paper per student to be submitted at the end of semester, it will contribute to 40% of the final grade.</p>
	Total hours per week: 3 hours