

### CES590 - MSc Research Project

Course Title	MSc Research Project				
Course Code	CES590				
Course Type	Compulsory				
Level	MSc (Level 2)				
Year / Semester	1 <sup>st</sup> Year / 2 <sup>nd</sup> Semester				
Teacher's Name	Dr. Demetris Nicolaides				
ECTS	7	Lectures / week	1	Laboratories / week	
Course Purpose and Objectives	<p>The purpose of MSc Research Project is to help students identify the important components of a chosen complex technical (civil engineering) problem and prepare an action plan aiming to further understand, analyze and define the specific problem, put it into its broader context and make a plan for its solution. Students, through their MSc Research Project, are going to work on a technical subject under the supervision of a faculty member, and are expected to design a detailed methodology and action plan, and also communicate and report their findings in proper written technical language.</p>				
Learning Outcomes	<p>By the end of the course, the students should be able to:</p> <ol style="list-style-type: none"> <li>1. Identify, formulate and solve structural engineering related problems, using established methods.</li> <li>2. Develop management skills and ability to retrieve, analyse and evaluate information from different sources.</li> <li>3. Analyze, synthesise, collect, interpret, understand, evaluate and assess information and employ logical thinking to solve an engineering problem.</li> <li>4. Work autonomously and manage available time.</li> <li>5. Acquire and summarize new knowledge, develop research skills and also demonstrate oral and written communication skills.</li> </ol>				
Prerequisites	None		Corequisites	None	
Course Content	<p>To satisfy the requirements of the MSc in Structural Engineering, students must successfully complete the MSc Research Project. This is an individual project where the students are allowed to choose a topic in the content of Civil Engineering and specifically in the area of Civil Engineering that they are interested in i.e. Structural Engineering, Geotechnical Engineering etc. Normally the decision on the topic is decided after consultation of students with various faculties.</p> <p>With the MSc Research Proposal (CES590) course, students must consult with the faculty advisor in order to specify the objectives, decide on the</p>				

	<p>methodology to be followed and a tentative time plan for the successful completion of the project.</p> <p>The student, in consultation with his advisor, should conduct the necessary background reading so as to obtain a deep understanding of the problem area and better appreciate the problems faced and goals set. Students should also investigate appropriate research methods where applicable.</p> <p>During the course, the student must submit to the Department of Civil Engineering a project proposal report that includes the project proposal with the detailed objectives and contributions of the project, a literature review on the topic of their project, the methodology to be used, the expected results, and the planning for the implementation of the project. The work in this course will continue in the next course which is the MSc Thesis (CES595).</p>				
Teaching Methodology	<p>This is an individual study course in consultation with the faculty advisor. The student will have regular meetings with the advisor to report the progress and discuss further actions that are related to the execution of the project. In addition the student will be asked to have an oral presentation at the end of the semester where the student will present the completed work and also a future plan for the work to be executed and finalized during the MSc Thesis (CES590).</p>				
Bibliography	<p>“The Elements of Technical Writing (Elements of Series)”, Gary Blake and Robert W. Bly, Longman; 1 Edition.</p> <p>Students are expected to reference a number of books, periodicals and other referenced material relevant to their work.</p>				
Assessment	<table> <tr> <td>Proposal report</td> <td>70%</td> </tr> <tr> <td>Oral Presentation</td> <td>30%</td> </tr> </table>	Proposal report	70%	Oral Presentation	30%
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Language	English				