

Course Title	Technical Writing				
Course Code	LAN 104				
Course Type	Compulsory				
Level	Undergraduate				
Year / Semester	1 st year / 2 nd semester				
ECTS	5	Lectures / week	2 x 90 min.	Laboratories / week	--
Course Purpose and Objectives	<p>This course aims to:</p> <ul style="list-style-type: none"> ▪ Enhance students' ability to communicate in the field of engineering ▪ Develop reading, writing, listening and speaking skills ▪ Enable students to effectively comprehend and summarize engineering related texts ▪ Enable students to write memos ▪ Familiarize students with process writing ▪ Broaden students' engineering related vocabulary ▪ Enable students to prepare and present PowerPoint presentations on topics related to their major field of study 				
Learning Outcomes	<p>Read a variety of real world materials and identify specific technical writing techniques/styles. Select important information.</p> <p>Differentiate main ideas from supporting details, express/discuss thoughts and ideas succinctly, locate relevant information and review texts for specific class tasks.</p> <p>Demonstrate growing competency in reading/writing/listening and speaking, use specific writing techniques/styles, practice and employ technical, engineering -related vocabulary.</p> <p>Appraise sources for suitability and relevance, identify specific language components employed in process writing, locate key ideas, examine reading materials to differentiate between effective and wordy writing.</p> <p>Compose memos, arrange and synthesize information, write summaries, plan/prepare and produce in class oral tasks.</p> <p>Assess/appraise peer to peer as well as personal performance. Critique written oral samples according to specific criteria.</p>				
Prerequisites	LAN 100 or equivalent	Required	--		
Course Content	The course aims to improve engineering student's skills in reading, writing, listening and speaking with particular emphasis on comprehending written material. Attention will be given to summary, process and memo writing (in addition to) the expansion of engineering related vocabulary.				

	Class texts will be taken from engineering and/or science magazines so as to assist students in familiarizing themselves with real world materials and enhance comprehension of English language engineering related literature. Particular focus will be placed upon encouraging students to work collaboratively in order to achieve desired course outcomes and to facilitate knowledge building.
Teaching Methodology	Task-based learning, Communicative, Collaborative
Bibliography	Course pack
Assessment	Mid-term exam, final exam, oral presentations, assignments
Language	English

Course Title	Mathematics for Engineers I				
Course Code	MAS025				
Course Type	Compulsory				
Level	Undergraduate				
Year / Semester	1 st year / 1 st semester				
ECTS	5	Lectures / week	3 hrs/wk	Laboratories / week	1 hr/wk
Course Purpose and Objectives	Introduction to the basic concepts of single variable Calculus				
Learning Outcomes	<p>Understand the notions of limits, continuity and differentiability of functions. Be able to calculate derivatives and use them in applications. Be able to calculate definite and indefinite integrals using various techniques as well as use integrals in applications (e.g. volume, arc-length).</p> <p>Study series and power series of functions and be able to recognize geometric, telescopic and harmonic series. Decide their convergence using appropriate tests. Calculate a Taylor series of a function.</p>				
Prerequisites		Required			
Course Content	The real number system. Complex numbers (definition, elementary operations). Sequences of real numbers and limits. Real functions of one variable, limits, continuity. Hyperbolic, trigonometric functions. Derivatives of functions of one variable, tangent to a curve. Applications of derivatives. Mean value theorem, monotonicity, extrema, asymptotes. L'Hôpital's rule. Riemannian integral. Fundamental Theorem of Calculus. Indefinite integrals. Integration techniques (substitution, integration by parts, partial fractions, trigonometric substitution, etc). Applications of integrals, calculation of area,				

	volume and length of a curve. Real number series. Convergence criteria. Power series. Series and Taylor's theorem.
Teaching Methodology	
Bibliography	<ol style="list-style-type: none"> 1. J. Stewart, Single variable calculus early transcendentals, 5th edition, 2003. 2. H. Anton, I. Bivens, S. Davis, CALCULUS (7th Edition), John Wiley & Sons, 2003. 3. R. A. Adams, Calculus a complete course, 1991.
Assessment	One midterm (40%) and one final exam (60%)
Language	Greek