

<b>COURSE CODE</b> BAC.EAINA.OTMAE.2082	<b>COURSE NAME</b> APPLIED MECHANICS: DYNAMICS		
<b>Credits</b>	<b>US Credits</b> 3	<b>ECTS Credits</b> 6	
<b>Student Workload</b>	<b>Contact Hours</b>	<b>Personal and/or Team Work</b>	<b>Evaluation</b>
	39	120	6
<b>Teaching Language</b>	English		
<b>Prerequisite</b>	MAE2081		
<b>Teaching Period</b>	SPRING 2021 Class meets: Wednesday 08:00am-11:15am		
<b>Course Coordinator</b>	Yan GRASSELLI, PhD - yan.grasselli@skema.edu		
<b>Instructor(s)</b>	Yan Grasselli, PhD - yan.grasselli@skema.edu		
<b>Evaluator(s)</b>	Yan Grasselli, PhD - yan.grasselli@skema.edu		
<b>Course Description</b>	This course is designed to give the student an understanding of the principles and methods of dynamics and to develop in him / her the ability to analyze engineering problems, involving kinematics, kinetics of particles and rigid bodies, in a systematic manner.		
<b>Learning Outcomes</b>	<p><b>Knowledge and Understanding (subject specific)</b> The student is expected to be able to analyse complex mechanical situations</p> <p><b>Cognitive / Intellectual Skills (generic)</b> The student is expected to : learn calculation techniques to be applied in any mechanical problems ranging from kinematics up to mechanical vibrations</p> <p><b>Key Transferable Skills (generic)</b> The student is expected to : be able to apply the presented calculations techniques in any dynamical situations</p> <p><b>Practical Skills (subject specific)</b> The student is expected to :</p>		
<b>Course registered in the process Assurance of Learning AACSB</b>	No		
<b>Student Assessment</b>	<b>Written Examination</b> Midterms (x2) Final Exam  <b>Continuous Assessment</b> Quiz	<b>Coefficient %</b> 50% (2x25%) 35%  15%	
<b>Teaching Methods</b>	Lectures Tutorial Sessions Autonomous Personal Work  Other (explain):		
<b>References / Books</b>	<b>Required for the course</b> Vector Mechanics for Engineers, Statics & Dynamics F. P. Beer & E. R. Johnston	<b>Recommended references</b>	
<b>Web Sites</b>			

	<i>Date</i>	<i>Topics</i>
	13/01/2021	Chap 11 - Kinematics of Particles
	20/01/2021	Chap 12 - Kinetics of Particles: Newton's Second Law Chap 13 - Kinetics of Particles: Energy and Momentum Methods
	27/01/2021	Tutorial 1 (11-12) Chap 13 - Kinetics of Particles: Energy and Momentum Methods
	03/02/2021	Chap 14 - Systems of Particles
	10/02/2021	<b>Quiz 1 (Chap 11 to 13) - 45mn</b> Chap 15 - Kinematics of Rigid Bodies
	<b>19/02/2021</b>	<b>Midterm 1 (Chap 11 to 13) - 8:00am-9:30am</b>
	17/02/2021	Chap 15 - Kinematics of Rigid Bodies Chap 16 - Plane Motion of Rigid Bodies: Force Methods
	24/02/2021	Spring break
	03/03/2021	Chap 16 - Plane Motion of Rigid Bodies: Force Methods
	10/03/2021	Tutorial 2 (15-16) Chap 17 - Plane Motion of Rigid Bodies: Energy and Momentum Methods
	17/03/2021	<b>Quiz 2 (Chap 15 &amp; 16) - 30mn</b> Chap 17 - Plane Motion of Rigid Bodies: Energy and Momentum Methods
	24/03/2021	Chap 19 - Mechanical Vibrations 10:00am-1:00pm
	<b>26/03/2021</b>	<b>Midterm 2 (Chap 15 to 16) - 8:00am-9:30am</b>
	31/03/2021	Chap 19 - Mechanical Vibrations 10:00am-1:00pm Tutorial 3 (17-19)
<p><b>Detailed Schedule</b></p>	TBA	Final Exam