



# CALL FOR STAFF EXCHANGE under ERASMUS+

Icam - Strasbourg-Europe Campus would like to propose a call for Staff Exchange under the ERASMUS+ program. The following classes are available for this academic year:

Subject	Domain
Strength of Materials	Mechanical Engineering
Solid Mechanics	Mechanical Engineering
English for Engineers	Mechanical Engineering
German for Engineers	Mechanical Engineering
Spanish for Engineers	Mechanical Engineering

Some of our teachers can share the class material. The kind of material available is specified below the content area. They could be for Lectures, Tutorials, Lab Sessions, or all material available.







Strength of Materials – Mechanical Engineering EC6-RDM			
Duration	5 to 10 days	Total hours	13,5 h- Lecture
Level	3 <sup>rd</sup> Year (BSc)	Language:	English
Desired period	From: February 2023 to May 202	23	
Elastic beam theory Fundamental assumptions of beam theory Saint Venant principle Stress-strain diagram of tensile test Geometric properties of cross section: centroïds and area moments of inertia Static equilibrium equations and reactions at joints Internal loads in beams cross sections Diagram of internal loads Simple loadings (tensile-compression, shearing, torsion, pure bending) Combined loadings (simple bending, bending & traction, bending & torsion; deviated bending) Stress and strain: stress vector, stress tensor, strain tensor, normal stress, shear stress, normal strain, shear strain Hooke law of elasticity, plane stress, plan strain Principal stress, principal strain, Mohr circle Failure criteria: Von Mises, Tresca and Rankine Displacement by integration method Principle of superposition for statically indeterminate beams Elastic instability and buckling of columns Euler's buckling load, critical buckling stress Energy methods (strain energy, theorem of potential energy, theorem of complementary energy, Castigliano theorem, theorem of fictitious load, Ménabrea theorem) Application of energy methods to statically indeterminate structures Analysis of trusses (static determinacy, axial loads, analysis of trusses by method of joints and by method of sections, strain and displacement in bars) Analysis of arches and curved beams			
Course sharing	☐ All ☐ Lecture ☐ Tutorial	☐ Lab sessions ☐ Non-	е
Tutor	First name NAME massamaess	o.bilasse@icam.fr	TOD

## Want to know more?







Solid Mechanics / Mechanics of Rigid Bodies			
Duration	2 to 5 days	Total hours	8h – Lecture/Tutorials
Level	1 <sup>st</sup> Year (BSc)	Language:	English
Desired period	From: March 2023 to April 2023		
Course content	<ul> <li>[1] Mathematical tools: reference-frame, vectors, kinetic &amp; potential energies (recalls from Mechanics of Particles – seen by students on previous semester)</li> <li>[2] Statics: mechanical actions, mechanical joints, fundamental principle of statics, mechanical equilibrium</li> <li>[3] Kinematics: velocity field, acceleration field, motion composition, planar motion, instantaneous rotation centre, slip-free rolling</li> <li>[4] Kinetics: kinetic moment, inertia moment, inertia operator, inertia matrix, Huygens' theorem, kinetic energy theorem</li> <li>[5] Dynamics: dynamic moment, fundamental principle of dynamics, mechanical energy theorem</li> </ul>		
Course sharing	☐ All ☒ Lecture ☒ Tutorial ☐ Lab sessions ☐ None		
Tutor	Sébastien MEY-CLOUTIER sebastien.mey-cloutier@icam.fr		

## Want to know more?







English for Engineers – Language Department (EC02-Ang)			
Duration	2 to 4 days	Total hours	10.5 h- Lecture / tutorial
Level	1st Year (BSc)	Language:	English
Desired period	From: May 9th to May 12th 2023		
Course content	The Technical English class is designed for 1st year engineering students in order to broaden their technical vocabulary in English. The objective is the teaching of mechanical engineering vocabulary equivalent to a Bachelor level. The class could be seen as an introduction to this vocabulary taught by an Engineer.  A teacher of English with experience in this field is welcome.		
Course sharing	□ All □ Lecture □ Tutorial □ Lab sessions ⊠ None		
Tutor	Leandro Di Domenico <u>leandro.didomenico@icam.fr</u>		

## Want to know more?







German for Engineers – Language Department (EC02-All)			
Duration	2 to 4 days	<b>Total hours</b>	10.5 h- Lecture / tutorial
Level	1st Year (BSc)	Language	German
Desired period	From: May 9th to May 12th 2023		
Course content	The Technical German class is designed for 1st year engineering students in order to broaden their technical vocabulary in German. The objective is the teaching of Maschinenbau vocabulary equivalent to a Bachelor level. The class could be seen as an introduction to this vocabulary taught by an Engineer.  A teacher of German with experience in this field is welcome.		
Course sharing	□ All □ Lecture □ Tutorial □ Lab sessions ⊠ None		
Tutor	Leandro Di Domenico <u>leandro.didomenico@icam.fr</u>		

## Want to know more?







Spanish for Engineers – Language Department (EC02-Esp)			
Duration	2 to 4 days	Total hours	10.5 h- Lecture / tutorial
Level	1st Year (BSc)	Language	Spanish
Desired period	From: May 9th to May 12th 2023		
Course content	The Technical Spanish class is designed for 1st year engineering students in order to broaden their technical vocabulary in Spanish. The objective is the teaching of vocabulary in Ingeniería Mecánica (nivel Grado) equivalent to a first or second year Bachelor level. The class could be seen as an introduction to this vocabulary taught by an Engineer.  A teacher of Spanish with experience in this field is welcome.		
Course sharing	□ All □ Lecture □ Tutorial □ Lab sessions ☒ None		
Tutor	Leandro Di Domenico <u>leandro.didomenico@icam.fr</u>		

<u>TOP</u>

## Want to know more?

