# Studies Plan

**EDME - Mechanics 2023-24**

## Core courses

<table>
<thead>
<tr>
<th>Courses</th>
<th>Exam</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language Code</td>
<td>Section</td>
<td>Teacher</td>
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<td>--------------------------------------------------</td>
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</tr>
<tr>
<td><strong>Experimental Geomechanics</strong> (Next time: Fall 2023)</td>
<td>Oral presentation</td>
<td>1</td>
</tr>
<tr>
<td>E</td>
<td>ME-705</td>
<td>Ferrari</td>
</tr>
<tr>
<td><strong>Fundamentals of Fracture with Fundamental Papers</strong> (Next time: Fall 2025)</td>
<td>Written &amp; Oral</td>
<td>2</td>
</tr>
<tr>
<td>E</td>
<td>ME-629</td>
<td>Garagash Kolinski Lecampion Molinari</td>
</tr>
<tr>
<td><strong>Introduction to earthquake source physics</strong> (Next time TBD)</td>
<td>Project report</td>
<td>2</td>
</tr>
<tr>
<td>E</td>
<td>ME-615</td>
<td>Lecampion Momeni</td>
</tr>
<tr>
<td><strong>Selected topics in poromechanics</strong> (First part Fundamentals of poromechanics -&gt; over 5 days (3 hours lecture / day) Sept 4 to 8, 2023 Second part Fundamentals of fluid-driven fractures -&gt; over the semester 1 hour lecture / week)</td>
<td>Oral</td>
<td>2</td>
</tr>
<tr>
<td>E</td>
<td>ME-630</td>
<td>Lecampion</td>
</tr>
<tr>
<td><strong>Similarity and Transport Phenomena in Fluid</strong> (Next time: Fall 2024)</td>
<td>Project report</td>
<td>2</td>
</tr>
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<td>E</td>
<td>ME-716</td>
<td>Ancyey</td>
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## Other doctoral courses (EDOC)

<table>
<thead>
<tr>
<th>Courses</th>
<th>Exam</th>
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<tbody>
<tr>
<td>Language Code</td>
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<td>Teacher</td>
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<tr>
<td><strong>Design of experiments (a) - Fall semester</strong> (Next time: Fall 2023)</td>
<td>Project report</td>
<td>4</td>
</tr>
<tr>
<td>E</td>
<td>ENG-606(a)</td>
<td>Fuerbringer</td>
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<tr>
<td><strong>Engineering of musculoskeletal system and rehabilitation</strong> (Next time Fall 2024)</td>
<td>Multiple</td>
<td>3</td>
</tr>
<tr>
<td>E</td>
<td>BIO-687</td>
<td>Antoniadis Crevoisier Favre Goetti Martin Pioletti Terrier</td>
</tr>
<tr>
<td><strong>Scientific programming for Engineers</strong> (Next time: Fall 2023)</td>
<td>Project report</td>
<td>4</td>
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<tr>
<td>E</td>
<td>MATH-611</td>
<td>Anciaux</td>
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## External courses

<table>
<thead>
<tr>
<th>Courses</th>
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<tbody>
<tr>
<td>Language Code</td>
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<tr>
<td><strong>Mechanics of earthquakes and aseismic slip</strong> (Registration via website: earthssepfleth.ethz.ch. July 18th - 21st 2022)</td>
<td>Project report</td>
<td>1</td>
</tr>
<tr>
<td>E</td>
<td>ME-801</td>
<td>Lecampion</td>
</tr>
<tr>
<td><strong>Towards a continuum of robot-assisted therapy</strong> (registration via tcr7.epfl.ch)</td>
<td>Oral presentation</td>
<td>1</td>
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<tr>
<td>E</td>
<td>ENG-806</td>
<td>Micera</td>
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## Master courses

<table>
<thead>
<tr>
<th>Courses</th>
<th>Exam</th>
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<tbody>
<tr>
<td>Language Code</td>
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<td>Teacher</td>
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<tr>
<td><strong>Advanced solid mechanics</strong> (pas donné en 2023-24)</td>
<td>During the semester</td>
<td>5</td>
</tr>
<tr>
<td>E</td>
<td>ME-437</td>
<td>GM</td>
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<tr>
<td>Course Title</td>
<td>Code</td>
<td>Type</td>
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<td>-------------------------------------------------------</td>
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<tr>
<td>Computational geomechanics</td>
<td>CIVIL-423</td>
<td>GC</td>
</tr>
<tr>
<td>Continuum mechanics and applications</td>
<td>CIVIL-425</td>
<td>GC</td>
</tr>
<tr>
<td>Energy geostuctures</td>
<td>CIVIL-444</td>
<td>GC</td>
</tr>
<tr>
<td>Experimental methods in engineering mechanics</td>
<td>ME-412</td>
<td>GM</td>
</tr>
<tr>
<td>Geomechanics</td>
<td>CIVIL-402</td>
<td>GC</td>
</tr>
<tr>
<td>Hydraulic turbomachines</td>
<td>ME-453</td>
<td>GM</td>
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<tr>
<td>Hydrological risks and structures</td>
<td>ENV-524</td>
<td>SIE</td>
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<tr>
<td>Indoor air quality and ventilation</td>
<td>CIVIL-460</td>
<td>GC</td>
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<tr>
<td>Instability</td>
<td>ME-466</td>
<td>GM</td>
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<tr>
<td>Mechanics of slender structures</td>
<td>ME-411</td>
<td>GM</td>
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<tr>
<td>Selected topics in mechanics of solids and structures</td>
<td>CIVIL-527</td>
<td>GC</td>
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<tr>
<td>Slope stability</td>
<td>CIVIL-530</td>
<td>GC</td>
</tr>
<tr>
<td>Turbulence</td>
<td>ME-467</td>
<td>GM</td>
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