Leonardo Art & Engineering Graduate Certificate

Prospective students should use this checklist (http://www.uab.edu/graduate/images/acrobat/checklist/LAEC.pdf) to obtain specific admissions requirements on how to apply to Graduate School.

Program Description

Leonardo da Vinci is recognized as embodying the concept of the Renaissance Man as he was a painter, sculptor, architect, musician, scientist, mathematician, engineer, and inventor - an accomplished artist of the 16th century and a perfect example of interdisciplinary endeavors.

In this spirit of the Renaissance Person, the Departments of Mechanical Engineering and Art & Art History bring their collective expertise and experience together to offer a new interdisciplinary Category A certificate program involving an integrated art and engineering curriculum.

The Leonardo Art & Engineering program crosses traditional boundaries between academic disciplines and forges new collaborations to create a scholar/scientist/artist ready to meet the demands of the 21st century. The objectives for the program are to:

• Provide cross-disciplinary training in simulation, art, visualization, and virtual reality to students with a BS/BA degree in Arts and Sciences, Engineering, Business, or Healthcare-related disciplines for addressing marketing, education/training, entertainment, product development, and design application demands of the 21st century growth area in 3D and VR technologies.
• Offer a mechanism for the large number of practicing artists, engineers, healthcare professionals, business managers, and game developers in Alabama and Birmingham to acquire additional training and education in simulation, 3D visualization, and VR.
• Provide a specialized education suitable to the needs of in-state, out-of-state, and international students interested in the application of 3D visualization, VR, and simulation to the industry or business segment of their preference. The program will provide the students with highly specialized and marketable skills.

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Program Requirements

• Students must be admitted to either Department in either the undergraduate or graduate program or to the UAB Graduate School as a non-degree seeking student. (Undergraduates may begin work on the certificate in their senior year provided they have satisfied prerequisite requirements and obtained approval from the Graduate School to take graduate level courses. A certificate can only be awarded after completion of the BA or BS degree requirements.)
• Students must apply to the UAB Graduate School and be admitted to the Leonardo Art & Engineering Certificate program. The application can be found on the Graduate School’s website (uab.edu/graduate) by clicking the ‘Apply Now’ button.
• Certificate requires a minimum of 18 semester hours.
• Relevant courses taken towards the certificate may be applied to the MS degree offered by the Department of Mechanical Engineering or MA degree offered by the Department of Art & Art History.
  • One course, up to three semester hours, may be transferred from another institution. This may be the required course or one of the graduate level courses.
  • Courses taken from UA and UAH by IITS may be applied to certificates

Course Requirements

Total of 18 credit hours, as follows:

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>ME 521 Introduction to Computational Fluid Dynamics Basics</td>
<td>3</td>
</tr>
<tr>
<td>ME 564 Introduction to Finite Element Method</td>
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<tr>
<td>ME 698 Non-Thesis Research</td>
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<tr>
<td>ARS 560 New Media-Special Topics 1</td>
<td>3</td>
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<tr>
<td>ARS 561 New Media-Special Topics 2</td>
<td>3</td>
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<tr>
<td>ARS 562 New Media-Special Topics 3</td>
<td>3</td>
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<tr>
<td>Total Hours</td>
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