2019 UTA ME/AE Graduate Students Orientation

12-1:00pm
Room 100 GH
August 13, 2019

http://mae.uta.edu/orientation
Agenda

• Welcome remark: Dr. Erian Armanios, Chair
• Staff member introduction
  Wendy (206), Lanie (204), Kathy (211)
• Faculty research presentation:
  – Dr. Dereje Agonafer (Uschas et al.)
  – Dr. Stefan Dancila
  – Dr. Ankur Jain (Hardik)
  – Dr. Hyejin Moon
• Graduate program overview:
  – Dr. Kamesh Subbarao (AE)
  – Dr. Ratan Kumar, Dr. Seiichi Nomura (ME)
• Lab tours (Optional: Agonafer, Jain)
Proper Way to Address Faculty/Staff

• Dr. Last Name (for faculty)
• First Name (or Mr./Ms. family name) (for staff )
• Email salutation (in order of appropriateness)
  • Dr. Nomura (appropriate)
  • Prof. Nomura (formal)
  • Dear Sir/Madam (OK)
  • Respected Sir/Ma’am (too formal)
  • Nomura (OK in military)
  • Mr. Nomura (some are offended)
  • Hey dude (if you expect no reply)
Hold the door
Vacation Home

- Must return before school begins
- Employment rescinded if late return
- Must be approved by your professor
AE Master of Science (Thesis, 30 hours)

- 2 Core courses (6 hours)
- 2 Math courses (6 hours)
  - Substitution of other MATHS courses needs approval from Supervising Professor and the Graduate Advisor
- 4 AE elective courses (12 hours)
  - Can use one non-AE course.
- AE 5698 (Thesis - 6 hours) in the last semester

- Three committee members
- Can switch to MEengr, with appropriate course adjustments. If you have already been working on the thesis, then your supervising professor should confirm that he/she approves this change.
AE Master of Engineering (30 hours)

- 3 Core courses (9 hours)
- 2 Math courses (6 hours)
  - Substitution of other MATHS courses needs approval from the Graduate Advisor
- 5 AE elective courses (15 hours)
  - Can use one non-AE course.

Can switch to MS only if all MS admission requirements are satisfied and if a supervising professor for thesis has been identified. Need an email confirmation for the same from the identified supervising professor.
AE Course requirements

• For both the M.S. and the M. Engr. degrees, the balance of the required coursework hours may be chosen in consultation with the Supervising Professor (MS) or Graduate Advisor (MEngr) to meet the student’s needs and interests.

• Courses taken outside the Aerospace Engineering program require approval of the student’s Supervising Professor as well as the Graduate Advisor.

• The elective courses cannot include special project courses (for example, AE 5391 / 5291 / 5191 Advanced Studies in Aerospace Engineering) or research courses (for example, AE 5397 / 5297 / 5197 Research in Aerospace Engineering).

• **Some courses such as AE 5397/6397 etc. are graded P/R/F.** An earned grade of P or R (can be taken for repeated credit) will not affect the GPA. However, earning an F will adversely affect the GPA.
CORE AREAS IN THE AEROSPACE ENGINEERING PROGRAM

The **four core areas** in the Aerospace Engineering program along with the recommended courses in each core area are listed below:

<table>
<thead>
<tr>
<th>Core Area</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid Mechanics, Aerodynamics and Propulsion</td>
<td>AE 5313</td>
<td>FLUID DYNAMICS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>AE 5326</td>
<td>AIR-BREATHING PROPULSION</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>AE 5342</td>
<td>GAS DYNAMICS</td>
<td>3</td>
</tr>
<tr>
<td>Solid Mechanics and Structures</td>
<td>AE 5310</td>
<td>FINITE ELEMENT METHODS.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>AE 5311</td>
<td>STRUCTURAL DYNAMICS</td>
<td>3</td>
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<tr>
<td></td>
<td>AE 5339</td>
<td>STRUCTURAL ASPECTS OF DESIGN</td>
<td>3</td>
</tr>
<tr>
<td>Flight Mechanics and Controls</td>
<td>AE 5302</td>
<td>ADVANCED FLIGHT MECHANICS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>AE 5362</td>
<td>GUIDANCE, NAVIGATION, AND CONTROL OF AEROSPACE VEHICLES</td>
<td>3</td>
</tr>
<tr>
<td>Flight Vehicle Design</td>
<td>AE 5368</td>
<td>FLIGHT VEHICLE SYNTHESIS AND SYSTEMS ENGINEERING</td>
<td>3</td>
</tr>
</tbody>
</table>
ME Master of Engineering (Non-thesis, 30 hours)

• 3 Core courses (9 hours)
• 2 Math courses (6 hours)
• 5 ME Elective courses (15 hours)
• Can be switched to M.S.
ME Master of Science (Thesis, 30 hours)

• 3 Core courses (9 hours)
• 2 Math courses (6 hours)
• 3 ME elective courses (9 hours)
• ME5698 (Thesis) in the last semester
• Thesis advisor: Find Prof by Fall 2019.
• Three committee members
• Can be switched to M.Eng.
CORE AREAS in ME

• Thermal Science
• Fluid Science
• Design, Mechanics and Manufacturing
• Controls and Systems
Available ME Core Courses (Fall, 2019)

• **THERMAL**: ME5316 Thermal Conduction, ME5321 Advanced Classical Thermodynamics

• **FLUID**: ME5313 Fluid Dynamics, ME5342 Gas Dynamics

• **DESIGN/MNFG/MECH**: ME5310 Finite Element Methods, ME5311 Structural Dynamics, ME5337 Intro Robotics

• **CONTROL**: ME5305 Dynamic System Modeling, ME5341 Control System Components
How to browse courses

• www.uta.edu/mymav
Search for Classes

Enter Search Criteria

Search for Classes

Institution: University of Texas, Arlington

Term: 2198

Select at least 2 search criteria. Select Search to view your search results.

Class Search

1. Subject:
   - ME (Mechanical Engineering)

2. Course Number:
   - is exactly

3. Course Career:
   - Graduate

4. Additional Search Criteria
   - Show Open Classes Only

5. Open Entry/Exit Classes Only

[Clear] [Search]
## ME 5305 - Dynamic Systems Modeling

<table>
<thead>
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<th>Class</th>
<th>Section</th>
<th>Days &amp; Times</th>
<th>Room</th>
<th>Instructor</th>
<th>Class Capacity</th>
<th>Seats Reserved</th>
<th>Available Seats</th>
<th>Meeting Dates</th>
<th>Status</th>
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<td>08/21/2019 - 12/04/2019</td>
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</table>

Notes: This is a combined section class

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<th>Meeting Dates</th>
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<td>Green</td>
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## ME 5310 - Finite Element Methods

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<th>Instructor</th>
<th>Class Capacity</th>
<th>Seats Reserved</th>
<th>Available Seats</th>
<th>Meeting Dates</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>82173</td>
<td>001-LEC</td>
<td>TuTh 9:30AM - 10:50AM</td>
<td>SEIR 194</td>
<td>Bo P Wang</td>
<td>50</td>
<td>0</td>
<td>44</td>
<td>08/21/2019 - 12/04/2019</td>
<td>Green</td>
</tr>
</tbody>
</table>

Notes: This is a combined section class
How to choose courses

• AE students take AEXXXX courses. ME students take MEXXXX courses.
• There is no specific course sequence.
• Take courses in your area for the first semester.
• If lost, start taking two core courses and one math (AE5331 or ME5331).
• It is important to maintain good grades.
Course Registration Process

1. Go to http://mae.uta.edu/form.pdf
2. Download the Registration Form
3. Fill and Save the Form
4. E-mail the form (instructions provided in a later slide)
1. Student ID # (Will start with 1001).
2. If you have been admitted under Probation, please indicate
3. Please provide the correct Course and Section number eg: 5310-001
4. Supervisor’s Name (Leave Blank if none).

Check the Accept Button.

Provide the date of submission.
Steps 3 & 4: Form Submission

1. Save the filled form
   The saved ‘file name’ should be your UTA-ID #.   \textit{eg: 1001456789.pdf}

2. Use your myMav account to send e-mail
   eg. \texttt{firstname.lastname@mavs.uta.edu}    \textit{(NO gmail, hotmail etc)}

3. The Subject Line of your e-mail should contain the following:
   \textit{UTA-ID LastName FirstName}    \textit{eg: 1001456789 Smith John}

4. E-mail the saved file to:
   \textbf{A) To your Supervisor}    (In case you have your supervisor)

   \textbf{B) Else}

   ME students:    \texttt{LastName}    Send E-mail to
   A through M    \texttt{me1@mae.uta.edu}
   N through Z    \texttt{me2@mae.uta.edu}

   AE students:    \texttt{A through Z}    \texttt{ae@mae.uta.edu}
Checklist

1. Carefully review your filled form.

2. Send it to the correct e-mail else it will not be processed.

3. Give us 2 business days to process the form.

4. In case you are not able to register beyond 2 days after submission, then bring a copy of your saved form and meet

   Ms. Wendy Ryan (WH 206).

5. DO NOT SEND YOUR FORM MULTIPLE TIMES.
Academic Integrity

• Cheat
  – Copying another’s test
  – Communicating with each other during exams
  – Contacting the internet during exams
  – Giving/seeking aids during exams
  – Using unauthorized materials during exams
  – Buying a test/report from the internet

• Plagiarize
  – Using someone else’s work without acknowledgment
  – Making slight modification without acknowledgment
Internship Opportunities

- Eligible after 2 semesters
- Must be in good standing
- Maximum: 2 semesters
- Local/Out of state companies
- Send 500 resumes.
- Can take distance courses while away
- Can lead to permanent employment
MAE Computer Lab

• Room 320, Woolf Hall
• 24/7 Open
• Account automatically activated upon enrollment
• Office/Matlab/Mathematica/Ansys/Pro-E
MISC. and some life hacks

• Choose a research professor ASAP or by the end of the second semester at the latest.
• There is NO GRADE REPLACEMENT policy.
• Attend campus seminars. Many come with snack/lunch. You learn something new.
• Use VIA within Arlington. $3 a ride.
• Library resources: Lynda.com
Tips for Success

• Be punctual.
• Be sure to include your UTA ID.
• Never miss an appointment.
• Ask questions. That makes difference.
• Your grade follows you until you die!
Question ?