ECE Master’s Orientation
Fall 2019

FALL 2019 MATRICULANTS
MS ECE

These slides may be found at http://www.bu.edu/eng/masters-orientation-slides/
Welcome!

Prof. Clem Karl - Chair of the ECE Department

- Oversees the Undergraduate, Graduate, and PhD ECE Programs
Introduction

Ari Trachtenberg
ECE Associate Chair for Master’s Programs

Susan Wilcox
Academic Program Manager - MS
Department of Electrical & Computer Engineering

54 Faculty Members

Honors:
- 3 National Academy Members
- 36 Society Fellows
- 24 NSF/Doe/DoD Young Investigators
- 3 Former IEEE Society Presidents

465 Undergraduate Students
184 MS Students
142 PhD Students
Who are you? by the numbers

1304 Applications (302 Universities, 26 countries)
~100 Matriculants
73 Universities
27 Majors
1 Boston University
Master of Science in Electrical and Computer Engineering

32 graduate-level credits or more
- GPA $\geq 3.0$.
- No grade lower than C for degree.

Software requirement: (1 course)
- EC602 – Design by Software in ECE

Practicum requirement: (1 course)
- EC601 – Product Design in ECE
- OR with placement:
  - MS/MEng project
  - MS thesis

ECE graduate electives (4 courses)
- Graduate ECE courses
- CAS CS courses generally count as well

General electives (2 courses)
- Graduate college of engineering (ENG) courses
- ECE-related CAS technical courses (CS, math, physics, ...)
- MS project, thesis, and independent study
Suggested Elective Tracks

- Bio-ECE and Digital Health
- Computational and Cyberphysical Systems
- Computer Communications and Networks
- Cybersecurity
- Data Science and Intelligent Systems
- Electromagnetics, Photonics, and Nanotechnology
- Hardware
- Mobile and Cloud Computing
- Sensing and Information
- Signal Processing and Communications
- Software
- Solid-State Circuits, Devices, and Materials
- Systems and Control
Recommended Curriculum

- **EC601** – Product Design in ECE
- **EC602** – Design by Software
- **Elective:**
  - **EC516** – Digital Signal Processing
  - **EC562** – Engineering Optics
  - **EC605** – Computer Engineering
- **Alternatives:**
  - **EC541** – Computer Communication Networks (requires probability)
  - **EC580** – Analog VLSI Circuit Design (requires analog electronics)

“What if I want to take a different elective course as my 3rd course?”
- Consult your academic advisor for approval
- If approved, advisor can sign add/drop form or email Susan
Internships

Request for your degree “with practice”:
- MS degree then requires an internship
- Otherwise same requirements as the regular MS
- First get an internship offer before applying for “with practice”

DOES NOT satisfy the practicum requirement.

You must first complete two academic semesters before you can enroll in an internship.
MS Project (optional)

Not required

You find a faculty advisor *yourself*.

3-5 page proposal:
- Submit your proposal before doing the work!
- Guidelines on ECE website.

4 credits over 1 semester **only**.

End-of-Semester MS Project presentation.
MS Thesis (optional)

- *Not* required
- You find a faculty advisor and committee *yourself*.
  - Committee includes 3 ECE faculty (*includes advisor*)
  - Can have outside member
- 3-5 page proposal:
  - Submit before doing work!
  - Guidelines on ECE website.
- At *least* 4 credits.
- Defend in front of committee
- *Cannot* be downgraded to Project
- *Very limited availability.*
  - ~ couple of theses / year.
MS Academic Conduct

BU Academic Conduct Code: http://www.bu.edu/academics/policies/academic-conduct-code

Violations:
• Exams, Cheating, Unauthorized Communication, Theft
• Homework/papers
  • Violating collaboration policy
  • Plagiarism
  • Misrepresentation/falsification of data

Process:
• First offense, undisputed:
  • Faculty member may request authorization for specific penalty.
• Second offense or disputed:
  • Academic Misconduct Committee

Potential penalties:
• Reprimand, Grade Reduction, Failure, Probation, Suspension, Expulsion
1. MS Student Ambassadors

Are attending this session. Say hello!

Consult Ambassadors for:

- *Peer advising* (course interests, field interests, specializations, internships, research, MS Projects/Thesis)

- *Adjusting* to the US/New England/Boston area (cultural/regional/social differences, transportation, food!)

- Always feel free to contact them in person or via email.

- Office hours on **Fridays:**
  - 9-11am
  - 12-5pm

Office hours posted online:

http://www.bu.edu/eng/departments/ece/resourcesforcurrentstudent/
Advising Resources

1. MS Ambassadors
2. MS Academic Program Manager—Susan Wilcox
3. Faculty Academic Advisor
4. Associate Chair of MS programs—Ari Trachtenberg
MS Ambassadors

Generally available via e-mail.
Also available at EC601 Design by Software in ECE 601 – A1:

MONDAY LECTURES 4:30-6:15PM

Shidong Sun
shidongs@bu.edu

Embedded Systems Design,
Internet of Things
MS Ambassadors

Generally available via e-mail.

Also available at EC601 Design by Software in ECE 601 – A1:

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<thead>
<tr>
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<th>WEDNESDAYS LECTURES 4:30-6:15PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zhongyuan Cai</td>
<td>Eric Li</td>
</tr>
<tr>
<td><a href="mailto:zycai@bu.edu">zycai@bu.edu</a></td>
<td><a href="mailto:ericli21@bu.edu">ericli21@bu.edu</a></td>
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Computer Vision and Digital Image Processing

Embedded Systems; Data Science; Medical Smart Devices
MS Ambassadors

Generally available via e-mail.
Also available at EC601 Design by Software in ECE 601 – A2:

WEDNESDAY LECTURES 12:20-2:05PM

Sarthak Arora
sarthak@bu.edu

Machine Learning; Embedded Systems; Robotics
MS Ambassadors

Generally available via e-mail.
Also available at EC601 Design by Software in ECE 601 – A2:

MONDAY LECTURES 12:20-2:05PM

Xinyue Li
xli33@bu.edu
Data Analytics
2. Academic Program Manager (Masters Program)

Susan Wilcox

Can assist with:

- Program questions
- Registration changes and questions
- MS Project/MS Thesis registration
- Internship registration
3. Faculty Advisors

Advisors have been assigned!
You can view your advisor on the Studentlink.

**When to consult your Advisor**
- Questions not answered by
  - MS Ambassadors, or
  - Academic Program Manager
- Broader, strategic questions of program
- Technical academic questions
4. Associate Chair - Masters Programs

Ari Trachtenberg

Consult for:
- Department-wide issues
- Problems not resolved by Advising Resources 1-3
- Bad jokes
ECE Graduate Student Association

ORIENTATION – FALL, 2019

KRISHNA SANKA
What do we do?

- Improve your student experiences
- Improve the outcomes of your degree
How do we do that?

Improve your student experiences

- Socials
- Panel Discussions
- Talks
- Events
- Creating Resources for students

Improve the outcomes of your degree

- Peer Mentoring Sessions
- Alumni Networking Events
- Entrepreneurship Workshops
We want Master’s Students!

Contact: ecegsa@bu.edu

Or you can contact me: sanka@bu.edu
EC601 and EC 602 Placement Exams

EC601 and EC602 placement exams will take place in Photonics Room 307 for those who have pre-registered:

EC601: 1:45 – 3:45 pm

EC602: 4:00 – 7:00 pm
Lunch @ Photonics Building

• Please walk with us to
  8 Saint Mary’s Street, West End Lounge, 9th floor,
  where we will be serving pizza and light refreshments.

• Talk with Prof. Trachtenberg, Susan Wilcox,
  faculty, MS Ambassadors, and classmates.
Questions?