

# Master of Science in Electrical Engineering

Department of Electrical and Computer Engineering  
College of Engineering



## ECE PhD Program Requirements for \*MS Degree in Electrical Engineering

Students are required to earn a total of 32 credits (8 courses) at the graduate level (500-level and above) with a degree GPA  $\geq 3.0$  or better to be used toward the degree. 4 credits of EC900 may be counted towards the MS practicum requirement when passing prospectus. All students must complete the requirements in order to receive the MS degree and apply for degree conferral.

Student's Name (In Print): \_\_\_\_\_ BU ID \_\_\_\_\_

Research Advisor: \_\_\_\_\_ Co-Advisor (if applicable) \_\_\_\_\_

### PROGRAM REQUIREMENTS

1. **EE ELECTIVE REQUIREMENTS (20 credits)** - Please list your 20 credits (5 courses) from the electives on the next page. At least 12 of the credits (3 courses) must be Electrical Engineering Electives and at most 8 credits (2 courses) can be Computer Engineering Electives.

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

2. **GENERAL GRADUATE ELECTIVES (8 credits)** – Please list your 8 credits (2 courses) of general graduate electives. General graduate electives may include graduate-level ECE courses, other College of Engineering graduate-level courses, and College of Arts and Sciences graduate-level courses in technical areas (e.g., computer science, mathematics, physics, biology) or MS Project or MS Thesis credits that are not counted towards the practicum.

Please list your general graduate electives:

- \_\_\_\_\_
- \_\_\_\_\_

3. **PRACTICUM REQUIREMENT (4 credits)** – Please include a copy of completed prospectus form.

EC900: ECE Research after passing prospectus

Advisor Name: \_\_\_\_\_ Advisor's Signature \_\_\_\_\_

Associate Chair: \_\_\_\_\_ Advisor's Signature \_\_\_\_\_

\* MS degree in Electrical Engineering is only available to continuing PhD candidates post-prospectus

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### ECE MS/MEng Electives

(See the College of Engineering Bulletin for course descriptions)

EE and CE electives are grouped according to sub-divisions. Please note the sub-divisions are specified to guide you in choosing electives according to your interests. The three courses used as EE electives can be chosen from a single sub-division of EE or they may be spread among multiple sub-divisions of EE.

#### ELECTRICAL ENGINEERING ELECTIVES

- **Signal Processing and Communications**  
EC503 EC505 EC508 EC515 EC516 EC517 EC519 EC520 EC541 EC702 EC715 EC716 EC717 EC719 EC720
- **Systems and Control**  
EC501 EC505 EC517 EC524 EC701 EC702 EC710 EC724 EC733 EC734
- **Sensing and Information**  
EC503, EC 504 EC505, EC508, EC515, EC516, EC517, EC520, EC521, EC702, EC715, EC716, EC717, EC719, EC720
- **Computational and Cyberphysical Systems**  
EC501, EC504, EC524, EC541, EC544, EC701, EC724, ME/SE740, ME570
- **Bioelectrical**  
EC505 EC516 EC520 EC571 EC580 EC582 EC716 EC717 EC720 EC772 EC782 EC765
- **Electromagnetics and Photonics**  
EC562 EC563 EC566 EC568 EC569 EC570 EC573 EC591 EC707 EC731 EC760 EC762 EC763 EC764 EC765 EC770 EC773 EC777
- **Solid-State Circuits, Devices, and Materials**  
EC571 EC574 EC575 EC577 EC578 EC579 EC580 EC582 EC770 EC771 EC772 EC774 EC775 EC777 EC782
- **General**  
EC601 EC602

#### COMPUTER ENGINEERING ELECTIVES

- **Computer Communications/Networks**  
EC505 EC508 EC515 EC521 EC524 EC534 EC541 EC544 EC561 EC715 EC724 EC725 EC727 EC733 EC741 EC744 EC749
- **Hardware**  
EC513 EC527 EC535 EC551 EC561 EC571 EC580 EC582 EC713 EC749 EC752 EC753 EC757 EC772 EC782
- **Software**  
EC504 EC511 EC512 EC521 EC528 EC527 EC535 EC544 EC712 EC730
- **Cyber Security**  
EC504 EC521 EC541 - CAS CS538 CAS CS548 CAS CS558
- **General**  
EC601 EC602 EC605