

**BIOLOGICAL AND PHYSICAL SCIENCES TO ELECTRICAL ENGINEERING  
BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO  
MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM**

*(Minimum of 150 credits required)*

The B.A. or B.S. degree is completed at the Wilkes Honors College (WHC), and students then receive their bachelor's degree from WHC. Students complete their master's degree work in [Electrical Engineering](#) in the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science and receive their master's degree from that college.

The Undergraduate/Graduate Coursework and Admissions requirements [detailed above](#) must be satisfied by students interested in this combined program. Students must also complete the prerequisite coursework for the master's degree while pursuing the bachelor's degree at WHC as listed with the [M.S. in Electrical Engineering](#). This combined program provides an attractive way for students to continue their graduate work. The undergraduate program is completed first, and the entire combined program can be completed in approximately five years.

**Degree Requirements**

To be eligible for the combined B.A. or B.S. in Biological and Physical Sciences to M.S. in Electrical Engineering degree program, students must fulfill the following requirements:

1. Completion of the requirements for the B.A. or B.S. in Biological and Physical Sciences at the WHC, and any other requirements stipulated by the College and University; and
2. Completion of all requirements for the M.S. in Electrical Engineering program in the Electrical Engineering and Computer Science Department with either the thesis or non-thesis option.

**M.S. Electrical Engineering**

<b>Comp Engineering Prereqs</b>	<b>Prereqs</b>	<b>Credits</b>	<b>College taken at</b>
COP 3035C Intro to Programming in Python or COP 2000 Honors Foundations of Programming		3	COECS (online) or WHC
COP 3275C Systems Programming with C++	COP 3035C		COECS (online)
CDA 3203 Computer Logic Design		3	COECS (online)
CDA 4102 Computer Architecture	CDA 3203 and COP 3275C	3	COECS (online)
MAC 2312 Honors Calculus II	MAC 2311	4	WHC
MAC 2313 Honors Calculus III	MAC 2312	4	WHC
MAP 2302 Differential Equations or MAP 3305 Engineering Mathematics	MAC 2312	3	WHC or CoS
PHY 2049/L General Physics II/Lab	PHY 2048/L	5	WHC
EEL 3111 Circuits 1	PHY 2049, MAC 2313, MAP 3305 (or MAP 2302)	3	COECS
EEL 3470 Electromagnetic Fields and Waves	EEL 3111, MAC 2313	3	COECS
EEE 3300 Electronics 1	EEL 3111	3	COECS
EEL 3118L Electronics Laboratory 1	Corequisite: EEE 3300	4	COECS
EEL 3502 Signals and Digital Filter Design	MAC 2312	3	COECS
EEL 4512C Principles of Communication Systems or EEL 4652C Control Systems 1	MAC 2313, EEL 3502, STA 2023 EEL 3502 and MAP 3305	3	COECS