Wireless Engineering

The wireless engineering curriculum is a joint offering of the Department of Electrical and Computer Engineering and the Department of Computer Science and Software Engineering, leading to the bachelor of wireless engineering (BWE). To meet the need for engineers that can improve life and business in these times of a mobile society, the program has the following educational objectives. (1) Wireless Engineering alumni who desire to pursue an engineering career will be widely employed in positions they find appropriate and desirable. (2) Those alumni who desire to pursue graduate or professional degrees will be successful in gaining admission and advancing in programs they find appropriate and desirable. (3) Alumni, independent of career path, will be pursuing activities they find appropriate and desirable. The program is designed to develop within its graduates a basic foundation in wireless engineering and either electrical engineering, software engineering, or communication networks that will provide the technical proficiency needed for the professional practice of engineering in the wireless industry; the ability to communicate their ideas effectively within the technical community and to the general public; the basis for, and an appreciation of and enthusiasm for lifelong scientific inquiry, learning and creativity; and preparation to take their places in society as responsible citizens, with an appreciation of and understanding for the need to maintain the highest ethical standards in their personal and professional lives. Graduates of this program will be able to analyze, develop, design, test, administer and support wireless network systems, communication devices, and other components used in wireless computer and telecommunication networks.

Each curriculum builds upon a solid foundation in mathematics, science, and electrical or software engineering fundamentals to introduce wireless communications theories, devices, circuits, systems, networks, standards, management, and applications. Design experience is interwoven throughout the curriculum by introducing basic design concepts early, emphasizing hands-on design experiences in the laboratories, including effective use of computers and other modern engineering tools, and culminating with a capstone design project in the senior year. In addition to its technical aspects, the curriculum emphasizes oral and written communication skills, the importance of business, economic, social and global forces on engineering, appreciation of the need to maintain the highest ethical standards, and the maintenance of professional competence through continued self-improvement after graduation.

Joint Wireless Engineering options:

- Hardware option (http://bulletin.auburn.edu/undergraduate/samuelginncollegeofengineering/departmentofelectricalandcomputerengineering/wirelessengineeringhardware_major)
- Software option (http://bulletin.auburn.edu/undergraduate/samuelginncollegeofengineering/departmentofelectricalandcomputerengineering/wirelessengineeringsoftware_major)

Major

- Wireless Engineering (Hardware Option) (http://bulletin.auburn.edu/undergraduate/samuelginncollegeofengineering/departmentofelectricalandcomputerengineering/wirelessengineeringhardware_major)
- Wireless Engineering (Software Option) (http://bulletin.auburn.edu/undergraduate/samuelginncollegeofengineering/departmentofelectricalandcomputerengineering/wirelessengineeringsoftware_major)