# 8/15/2020

# brcc keystone logo

Baton Rouge Community College

*Academic Affairs Master Syllabus*

Date Approved: 2 September 2020

Term and Year of Implementation: Fall 2020

**Course Title:** Wireless Communications

**BRCC Course Rubric:** CNET 2603

**Previous Course Rubric**: CNET 260

**Lecture Hours per week-Lab Hours per week-Credit Hours**: 3-0-3

**Per semester: Lecture Hours-Lab Hours-Instructional Contact Hours**: 45-0-45

**Louisiana Common Course Number:**

**CIP Code:** 11.0901

**Course Description:** Provides an introduction in wireless network design methodologies and implementation fundamentals in LANs and WANs. Includes wireless technologies such as of 802.11, 16, and 22 protocol; Mobile Ad Hoc NETworks (MANETs), and Wireless Sensor Networks (WSNs).

**Prerequisites:**  CNET 2103 (or CNET 210)

**Co-requisites:** None

**Suggested Enrollment Cap:** 25

**Learning Outcomes.** *Upon successful completion of this course, the students will be able to:*

1. Describe and identify the various wireless network components.

2. Describe and identify various types of wireless networks: Ad-hoc, Sensor, Mobile.

3. Describe various MAC and Network layer protocols.

4. Provide performance evaluations metrics and simulations.

5. Describe privacy, security, and authentication for wireless networks.

6. Implement various wireless networks.

7. Troubleshoot common Wireless Network problems.

8. Understand IEEE 802.11, 802.16, and 802.22 standards.

**Assessment Measures.** Assessment of all learning outcomes will be measured using the following methods:

1. Homework

2. Individual/group projects

3. Instructor-prepared tests

4. Assessment tools will be generated using case study projects.

**Information to be included on the Instructor’s Course Syllabi:**

* ***Disability Statement*:** Baton Rouge Community College seeks to meet the needs of its students in many ways. See the Office of Disability Services to receive suggestions for disability statements that should be included in each syllabus.
* ***Grading:*** The College grading policy should be included in the course syllabus. Any special practices should also go here. This should include the instructor’s and/or the department’s policy for make-up work. For example in a speech course, “Speeches not given on due date will receive no grade higher than a sixty” or “Make-up work will not be accepted after the last day of class”.
* ***Attendance Policy*:** Include the overall attendance policy of the college. Instructors may want to add additional information in individual syllabi to meet the needs of their courses.
* ***General Policies*:** Instructors’ policy on the use of things such as beepers and cell phones and/or hand held programmable calculators should be covered in this section.
* ***Cheating and Plagiarism*:** This must be included in all syllabi and should include the penalties for incidents in a given class. Students should have a clear idea of what constitutes cheating in a given course.
* ***Safety Concerns:*** In some courses, this may be a major issue. For example, “No student will be allowed in the lab without safety glasses”. General statements such as, “Items that may be harmful to one’s self or others should not be brought to class”.
* ***Library/ Learning Resources:*** Since the development of the total person is part of our mission, assignments in the library and/or the Learning Resources Center should be included to assist students in enhancing skills and in using resources. Students should be encouraged to use the library for reading enjoyment as part of lifelong learning.

**Expanded Course Outline:**

I. Introduction to Wireless Networking

II. Wireless Network Components and Functionality

III. Wireless Protocols

IV. Wireless Routing Algorithms

V. IEEE 802 standards

VI. Install, replace, and upgrade Wireless hardware components

VII. Identify common Wireless Networks problems

VIII. Wireless Telemedicine

IX. Future Wireless technologies