Department of Electrical and Computer Engineering
Request for ECE 498

Course Title: Models of biophysical system

Catalog Description: Neuroscience is the study of how neurons work. The mathematics of neuroscience have reached a level that it can fill a 3 hr course at the third year undergraduate level. This material is important for students who are interested in artifical neural networks and machine learning. The mathematics of neuroscience is a good training ground for extended the techniques of artificial neural networks and novel extensions of machine learning.

Prerequisites: ECE 310, Math one of MATH 284, 285 or 286(differential equations)

Instructor(s): Jont Allen

How many times has this course been offered? 0

If course has been offered before, what was the enrollment _____Undergrads _____Grads

Proposed for: Fall___X_____Spring_____

Year__2019_____ Year _____.____

Course No: ECE 198 ____ ECE 298 _____ ECE 398__X____ECE 498_____ECE 598 _____

Credit: __3___ undergraduate hours _____ graduate hours

Normally credit of 1hour results from 3 hours of lab or 1 hour of lecture-discussion per week for ECE 498 level courses.

Please indicate: Lect __X_____ Disc _____ Lab _____.

Time of Day: __Morning_____Days of week**:** _3_____

Labs: _____No____ Maximum enrollment 40_____ ITS Room __NO
(please circle)

Course Justification:

a. **Please attach the course syllabus**. The syllabus should include basic and recommended texts (author, title, year of publication) as well as a topical outline, number of examinations, contact hours, work required of students, and basis for determining grade.

b. Justify the course in terms of new subject matter and how the addition of this course relates to the overall pattern of the courses in your unit.

c. Explain how the course is different from similar offerings in other units.

Request prepared by: Jont Allen _____Date: Jan 18, 2019_____

Recommendations:

Area Committee ____BIBA_____ Date _____.

Curriculum Committee _____ Date _____.

Graduate Committee _____ Date _____.