DATE: February 28, 2020

TO: Phillip Anzalone, Chair

College Council Curriculum Committee

FROM: Curriculum Subcommittee

Denise Scannell (chair), Robert Polchinski, Robert MacDougall

RE: Report for New Course Proposal 19-09

**COURSE TITLE AND NUMBER:** CET 4910 Digital Image Processing

**CREDIT HOURS:** 3 credits, 2 hours lectures, 2 hours lab

**PREREQUISITES:** Pre/Co: CET3625, or departmental approval

**Catalog Description**

Introduction to the fundamental concepts and techniques of digital image processing. Topics include image display and image acquisition, sampling and quantization, two-dimensional discrete Fourier transform, spatial and frequency domain linear image filtering, noise model, image restoration, and image compression and segmentation.

**Rational**

Digital image is one of the most fundamental methods to store information in the modern world. It is widely used in areas such as industrial automation, medicine, biology, astronomy, even law enforcement, defense, and intelligence. It is important for our students to understand the basic concepts of the fundamental components of image processing and master the techniques currently used in the industry. An understanding of the basic principles of digital image processing allows our CET students to obtain a jobs and to work on a project in any related tech field.

**Strengths**

The new course will expand the technical electives offered to students and will offer students a competitive edge in the job market. The course additionally is expected to compliment the new degree program BS in Biomedical Engineering that is in CCCC review.

**Weaknesses**

None

**Issues and Concerns Discussed**

The subcommittee, Dean's Office and Provost’s office. There were no major concerns raised with the content or nature of the course. Minor changes, such as including course equivalencies for transfer students and one or two departmental support emails, were recommended. The Proposers completed all requested changes to the proposal document and sent a revised version to the subcommittee.

**Subcommittee activities**

The subcommittee reviewed the proposal and compiled a list of comments and questions for the proposers. On February 11, the proposers received written comments in a word document outlining the proposed changes to the proposal. The proposers completed all requested changes and sent a revised proposal to the subcommittee. The subcommittee and proposers met with Dean Shield, A.P. Brown, Provost August and Kim Cardascia on February 27th. Minor revisions to the proposal were suggested and completed.