

# ECE Undergraduate Core Courses Committee Meeting

## Friday, February 2nd, 2024

**Attending:** Arabshahi , Chen, Hameed, Lister, Makhsous, Overly, Swanson, Van Fossen, Wilson (Chair)

### **Agenda:**

1. Discussion to determine critical components for inclusion in Master Course Descriptions (MCDs).
2. Schedule which MCDs we are going to review when (and determine who should be invited to each meeting).
3. Discuss what EE491 would look like. With Colloquium becoming grad only, we want to look at creating a new seminar experience for undergrad ECE students.

**Minutes of December 6<sup>th</sup>, 2023: Approved**

**Minutes of January 19<sup>th</sup>, 2024: Approved**

### **Discussion of critical components for inclusion in course Master Course Descriptions (MCDs)**

With a plan for committee reviews of MCDs for the core courses, Wilson wanted the committee to review what components should be essential for course MCDs.

- See [Proposed Template](#)
- Wilson provided updated 280 MCD as an example. Essential information to include:
  - Looking for more than one instructor who can teach a course
  - Learning objectives, using active verbs
  - Prerequisites
  - Lab structure, if pertinent
  - Course structure.
    - Looking for consistency
    - But also instructor freedom
  - Computer resources, if needed
  - Lab resources, if needed
  - Grading
  - ABET Outcomes (for grad courses)
- Brainstorm - what do members think are crucial?
  - Balance between instructor freedom and consistency
  - How much hands on?
  - Team vs Solo
  - Formative vs Summative for grading
- Overly provided aspects on MCD that are needed for proposal
  - Prerequisites by course
  - Learning objectives
  - Course structure
  - Grading breakdown
    - "Participation" must be broken down to what aspects of participation will be assessed, and how they will be assessed.
- Discussion of faculty variance in grading, and its impact on ability
  - Do we want to provide grading guidelines.

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- Arabshahi:
  - Different courses may need different policies?
  - AI guidelines
- Van Fossen:
  - Advising refers students to the MCDs.
- Hameed:
  - Be explicit about what instructor variance is allowed under "freedom"

### **Create Schedule for Review of Master Course Descriptions (MCDs)**

- EE 201 will be reviewed in spring quarter after revisions are complete
- Scheduled for 2/16 meeting:
  - EE 215
  - EE 241
  - EE 242
  - EE 280
- EE 271 will need to be reschedule due to availability of committee members
- Also for review in spring quarter:
  - EE 393
  - EE 398
- Invitations to appropriate meetings to be sent to course coordinators and recent instructors for reviewed courses.

### **Discussion of Future Format for EE 491: Undergraduate Seminar**

With the decision by the department to remove EE 491: Undergraduate Seminar from participation in the department's Colloquium series, the undergraduate curriculum no longer has a quarterly offered seminar. In hopes of creating an alternative, Wilson asked the committee to discuss ways to provide a strong seminar for undergraduate students in the department.

- Colloquium content was usually at too high a level for most undergraduates.
- Desire is to provide a relevant and engaging experience for undergraduate students
  - Many will have limited experience with ECE material
- Previously, department offered EE 200: Undergraduate Research Exploration Seminar
  - Ran for one year successfully, but faculty member found it to be a heavy amount of work arranging content for each week.
  - Discontinued when faculty member stepped away for the course
  - The 2XX course number makes it unavailable as an approved ECE elective under the new BSECE degree.
- Ideas presented:
  - PhD Students present research; invite other departments to have their PhD students do the same (we did this with Richard Shi supervising for two years) – PhD level is often too high-level as well, so it needs to be preceded with tutorial-oriented information.

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- Student panels/other panels – people from elsewhere joining online to showcasing their work at a lower level.
- High achieving undergraduates presenting for credits, taking care to ensure that what is presented is accessible. Alternatively, undergraduates presenting their capstone projects.
- Take GREAT care to ensure the information is comprehensible.
- Whatever it is, it needs to be sold accurately in terms of load for faculty or other facilitators.
- Tie this seminar in with pathway options. Connect to courses.
- Assign faculty by weeks (as a service load?)
- Open up to industry (as long as it doesn't become corporate advertising)
- Tai will integrate pathways into EE201
- <https://undergradresearch.dasa.ncsu.edu/undergraduate-research-seminars/>
- Make this a part of a more structured EE499

**Further discussion required**