College of Engineering Faculty Organization (CEFO)

November 28, 2023
Resources for faculty, students, institutions, & more.

www.authorshipproject.org

Authorship Agreement

Section 1: Declaration of student project

Instructions:
The project and its publications are designed to meet transparency expectations. All work is required to be transparent and understood. In case questions arise, the agreements of all authors are subject to the principles outlined below.

Section 2: Project background & publication goals

Let's talk about authorship.

Authorship Training Course

Graduate Student Course

Faculty & Staff Course

Supporting open, transparent practices in research collaborations.
1. Call to Order
2. Approve Agenda
3. Approve Minutes (see email from Dr. Falaggis for link)
4. Chairs Remarks
5. Common First Year Program updates
6. College discussion on the use of AI tools in the classroom
7. (if time permits) Continuation of College Strategic Discussion - Dean Keynton
8. Adjourn
Approval of minutes from the October 31, 2023 meeting
President’s remarks
CONSTITUTION OF THE FACULTY: Article III, Section 2. Justification for Faculty Authority

The Faculty accepts the major portion of accountability for the quality of instruction and scholarship at this university. Therefore, it is fitting and proper that responsibility and authority, both primary and shared, for certain functions within the University be assigned and delegated to the Faculty and that the process for the discharge of these responsibilities and the exercise of this authority be defined.

Our Constitution says:

The Faculty shall exercise such authority as is granted to Faculty by “Constitution Of The Faculty The University Of North Carolina At Charlotte”, Policies of the University and the Laws of the State of North Carolina.
So CEFO is our body to practice these rights.

- CEFO meets 2-4 times a semester (more lately since we have a lot to decide)
- CEFO will always meet on Tuesdays, 11:30 am to 12:45pm in a TBD room (EPIC G287 this semester)
- Courses SHOULD NOT be scheduled at this time
- We ask for you to not schedule competing meetings/presentations.
- You all should have been sent meeting invites for this semester. We use your positive response (6 days before the meeting) to the invite to order food. Please do not grab a lunch box if you did not accept the meeting invite.
- The start and stop times will be strictly adhered to (we will end at 12:45 pm or earlier)
- Make sure to sign one of the attendance sheets.
President’s Remarks - CEFO

- Feel free to request that faculty discuss governance/curricular concerns at these meetings:
  - Request to modify the CEFO voting processes. Ad Hoc committee setup to investigate, but we need a few more people to participate (Ed Morse and Michelle Demers so far).
  - Request to address our changing computing environment, as well as website content (refer to committee?)
  - Request to revisit out entrance criteria (UG committee, then vote)
  - Graduate School position on Assistant Professors not being permitted to Chair MS and PhD committees
Status - Common First Year Curriculum
Generative AI in CoE
Generative AI in CoE

Meg Harkins
Kevin Lindsay
Gwen Gill
Arun Ravindran
Glenn Moglen
What is Generative AI and What is it Capable of?

- **Chat.openai.com**
  - Writing code: ex. Python code for sensor detects object, run motor for 30 seconds
  - Writing an essay: ex. Write a 4-page essay on the Bernoulli Equation
  - Answering questions: ex: What is the cause of the Challenger Disaster?
  - Summarizing content

- **Similar technologies:** ChatGPT, Google Bard, Microsoft Bing AI, Chatsonic, Claude 2 (more in development)

- **Limitations**
  - Very poor at citing sources
  - Garbage in-garbage out (It does not ask for clarification)
  - Can generate language that sounds professional but can contains errors, requires validation
  - Its knowledge stops at April 2023
  - Good at snippets of code, but not complex coding
[Faculty are encouraged to include language in their syllabi addressing if and how the use of certain materials, including generative AI tools such as ChatGPT, are permitted. The following language may be adapted to particular circumstances:]

The following materials, equipment, websites, or tools are prohibited for completing course assignments, quizzes or examinations, or other academic exercises unless I explicitly permit such use for legitimate pedagogical purposes: [list unauthorized materials, which may include ChatGPT or other generative artificial intelligence tools, online course material suppliers like CourseHero or Chegg, etc.]
To support students writing process and reduce the potential for issues of academic integrity:

1. **Get to know your students' writing**, voice, and style.
2. **Understand the limitations of AI tools** like ChatGPT to review their work in questionable situations (e.g. ChatGPT is terrible at citing references and sometimes factually incorrect).
3. Design writing assignments with the following structure:
   a. **Long term project** (e.g. semester)
   b. **Chunked tasks**, according to:
      i. Learning and skills goals
      ii. AI Support goals
      iii. Human-feedback goals
4. **Regularly engage with and discuss best practices for using AI** in school, work, and daily life.
What are some resources for including Generative AI in your course?

Center for Teaching and Learning Resources
https://teaching.charlotte.edu/teaching-transformation/ai-across-curriculum
It should cause us to rethink some assignments to understand the addition of AI to the process and require critical thinking about its application.

**It will be used by students even if banned.**

How can we teach them to use it as a tool?

How should it be acknowledge as a source or starting point?
AI tools help students by acting as a "24x7" personal assistant.

- gives them the confidence to get over the initial fear/inertia.
- supports students from all backgrounds by allowing them to ask any type of question without judgement

The whole teaching, and in particular evaluation, has to be extensively modified to incorporate these tools.

- give them harder assignments, more in tune with what they would do in a real-life job
- understanding can be evaluated completely based on in-class, team based presentations

Use of AI tools shifts the work from mundane details (for example, coding syntax) to understanding the larger picture, and evaluating the relevance of the results produced by the AI.

From my interactions with industry professionals in the tech space, AI tools are widely used (>90%) by developers today. Students need to be proficient with these tools to be competitive in the job market.
What is the potential for student abuse of Generative AI?

- Ask it to do your homework, and it will
- Ask it to respond to a writing prompt, and it will
- Ask it to summarize a journal article, and it will
- It is hard to detect AI generated language
- Over reliance on chatbots can hinder learning and reduce critical thinking
- Plagiarism risk is high because Chat GPT doesn’t cite sources
- Risk of misinformation, because some of its answers are wrong

It doesn’t always do these things well, but neither do the humans.
Can be used to speed up some mundane writing and coding
Often serves as a starting point, but requires evaluation and modification
Risk of laziness
Overuse can reduce critical thinking and research skills

NY Lawyer sanctioned for submitting AI generated brief that contained made up case citations

Consider the importance of academic integrity, critical thinking, and the responsible application of technology in the learning process.

It would be irresponsible of the College and potentially damaging to our reputation to allow students to graduate who are unaware of the limitations and how to responsibly use AI technologies.
The College of Engineering Faculty hereby adopt the following position on the use of Artificial Intelligence (AI) technologies in College of Engineering courses:

- All CoE students should learn to respect and appreciate the strengths and limitations of AI technology. This should be reinforced repeatedly by all/many CoE faculty through individual course syllabi and discussions held in all/many classes.

- All CoE students should explicitly read, review, and adhere to the campus policy on Academic Integrity (https://legal.charlotte.edu/policies/up-407) with respect to faculty direction on the use (or non-use) of AI technologies in their class (or on individual assignments).

- All CoE students should **disclose the use of generative AI tools** whenever they use them when submitting assignments.

- All faculty should include their policy on the use of AI tools in their course syllabi.
College Strategic Discussion

Dean Keynton
Closing
CEFO meeting schedule:

All meetings in EPIC G287*, from 11:30 am to 12:45 pm

* Not yet confirmed for spring semester

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<thead>
<tr>
<th>August 29</th>
<th>January 23</th>
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<tr>
<td>September 26</td>
<td>February 20</td>
</tr>
<tr>
<td>October 31</td>
<td>March 26</td>
</tr>
<tr>
<td>November 28</td>
<td>April 23</td>
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Supporting open, transparent practices in research collaborations.
Thank you for attending