

Professional Development for Materials Science and Engineering, EMA 6920, Section 1E44, WEBR
Professional Development for Nuclear Engineering Sciences, ENU 6941, Section PDN1

Class Periods: Tuesday 7 (1:55-2:45pm)

Location: Classroom location

Academic Term: Fall 2025

Instructor:

Dr. Yong Yang

yongyang@ufl.edu

202A Rhines Hall

(352) 846-3791

Office Hours: M: 10:40 – 11:30

Dr. Kevin Jones

kjones@eng.ufl.edu

160 Rhines Hall

(352) 846-3301

Office Hours: M: 10:45 – 11:30

Teaching Assistant/Peer Mentor/Supervised Teaching Student:

- None.

Course Description

EMA 6920: Professional development training as a graduate student in Materials Science and Engineering, including serving as teaching assistant in the instruction of materials science and engineering courses, and developing and defending research proposals.

ENU 6941: Students will learn strategies and sound practices in proposal research, creation, and defense.

Course Pre-Requisites / Co-Requisites

Be specific and indicate if equivalent courses or instructor permission is relevant. This must match the catalog for approved courses

Course Objectives

To develop required skills for and demonstrate readiness for the Ph.D. proposal defense in materials science or nuclear engineering.

Materials and Supply Fees

None.

Required Textbooks and Software

None

Recommended Materials

None

Required Computer

Recommended Computer Specifications: <https://it.ufl.edu/get-help/student-computer-recommendations/>

HWCOE Computer Requirements: <https://www.eng.ufl.edu/students/advising/fall-semester-checklist/computer-requirements/>

Course Schedule (Tentative)

Week 1 (Aug 26): Introduction (Dr. Yang and Dr. Jones)

Week 2 (Sep 2): Scientific Method 1 (Yang)

Week 3 (Sep 9): Scientific Method 2 (Yang)

Week 4 (Sep 16): Ethics, Plagiarism, and AI (Jones)

Week 5 (Sep 23): Literature Skills (Jones)

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Profs. Yang and Jones, Fall 2025

Week 6 (Sep 30):	Research Proposal Presentation: Question and Hypothesis (Yang)
Week 7 (Oct 7):	Research Proposal Presentation: Prediction and Testing (Jones)
Week 8 (Oct 14):	Research Proposal Presentation: Analysis, Conclusion, Further Questions (Jones)
Week 9 (Oct 21):	Assertion Evidence Based Approach (Jones)
Week 10 (Oct 28):	Elevator Presentation (Jones)
Week 11 (Nov 4):	Transforming Presentation into Research Proposal: Overall Structure (Yang)
Week 12 (Nov 11):	Research Proposal: Main Body of Proposal (Yang)
Week 13 (Nov 18):	Research Proposal: Title, Abstract, Introduction and Conclusions (Yang)
Week 14 (Dec 2):	Proposal Reviewing (Yang)

Important Dates

<October 27> Elevator Presentations

<December 3> Delivery of Research Proposal

Evaluation of Grades

Assignment	Total Points	Percentage of Final Grade
Research Presentation	35	35%
Research Proposal	35	35%
Class Participation	10	10%
Other Deliverables*	20	20%
		100%

Grading Policy

- 75.0+% - S
- 0 – 74.9% - U

Academic Policies & Resources

To support consistent and accessible communication of university-wide student resources, instructors must include this link to academic policies and campus resources: <https://go.ufl.edu/syllabuspolicies>. Instructor-specific guidelines for courses must accommodate these policies.

Attendance Policy, Class Expectations, and Make-Up Policy

Excused absences must be consistent with university policies in the Graduate Catalog (<https://gradcatalog.ufl.edu/graduate/regulations/>) and require appropriate documentation. Additional information can be found here: <https://gradcatalog.ufl.edu/graduate/regulations/>.

Commitment to a Positive Learning Environment

The Herbert Wertheim College of Engineering values varied perspectives and lived experiences within our community and is committed to supporting the University's core values.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind, please contact your instructor or any of the following:

- Your academic advisor or Graduate Coordinator
- HWC OE Human Resources, 352-392-0904, student-support-hr@eng.ufl.edu
- Pam Dickrell, Associate Dean of Student Affairs, 352-392-2177, pld@ufl.edu