BIOE 628: Medical Technology Industry Seminar 2
Spring Semester 2025
12:00 PM - 1:15 PM (CT) Mondays
IN PERSON: BRC 282

INSTRUCTOR: Dr. Kevin Holmes 713-348-2043 kh118@rice.edu Office hours: By appointment	TEACHING ASSISTANT: Mohamed Mohamed Mohamed.Mohamed@rice.edu Office hrs: By appointment

Course developer: Matthew Wettergreen (mwettergreen@rice.edu)

COURSE ADMINISTRATION

Textbook

None required

Course Objectives and Outcomes

The objective of this course is to expose students to career options in medical technology and help them prepare for a successful career search, regardless of whether that search happens immediately or in several years.

Course objectives - Students will:

1. Be exposed to a variety of career options in the medical technology industry via seminars and one-on-one communication.
2. Improve a portfolio of materials (online and on paper) that support a job search and build a professional network.
3. Improve their ability to communicate correctly and effectively in writing and speech, considering audience and purpose.
4. Learn the professional society-based skills that lead to a productive career and social interactions.

Course outcomes - Students completing the course should be able to:

1. Understand the process for securing employment in a technical field related to bioengineering.
2. Successfully complete an initial search for mentors in their chosen field and make contact with individuals.
3. Revise a plan for a job search in a field related to bioengineering, including targeting positions, individuals, and companies.

Course credit and contact hours

BIOE 627 / BIOE 628 are 1.5 credit hours. According to the rules set by the Registrar (https://registrar.rice.edu/facstaff/credit_hours), lecture/seminar courses include 1.5 hours per week of class and 3 hours of "course preparation" or, the time spent doing pre-work or homework. Thus, for this course, Rice's expectation is that you will spend, on average, 3 hours per week reviewing materials before class or completing homework after class.

Class Time and Support

Class time will include practical information about how to plan for a career in the medical technology industry and guest talks presented by outside experts in the industries students may want to pursue. The course will also include in-class workshops and student discussions. Active engagement is expected of all students in this course.

COURSE SCHEDULE

The course schedule, topics, and assignments are outlined in the tentative schedule shown in Table 1. This schedule is subject to change and will be maintained on Canvas. Changes will be communicated via email, verbally, or via Canvas announcements. Pre-class assignments are due at the beginning of class.

BIOE 628: Medical Technology Industry Seminar 2

Table 1. Course Schedule, Topics, and Corresponding Assignments.

Week	Date	Location	Class Topic, Guest Speaker, or Workshop	Assignment
1	1/13	BRC 282	**Course Overview / Professional Presence**	Consent Form
2	1/20	NO CLASSES - MLK DAY		
3	1/27	BRC 282	**BIOE Alumni Panel: Moderator: Savannah Morreale (BIOE-GMI '22)** **Panelists: TBD** Subject: Lessons Learned from Past Career Searches	Career Growth Review and Career Materials
4	2/3	BRC 282	**Mock Interviews, CCD**	Information Interview #1, Part 1
5	2/10	BRC 282	**Dustin Decker, Zimvie** Subject: How to Manage Email Communication in the Workplace	
6	2/17	BRC 282	**Panel: Careers in International Medical Technology Roles** Subject: Industry Focus: Careers in International Med Tech Settings	Networking Practice
7	2/24	BRC 282	**Joslyn O'Grady, Executive Recruiter, Accordance Search Group** Subject: Optimizing Outcomes at the End of Your Job Search: Negotiation and Total Compensation Packages	Takeaways Part 1
8	3/3	BRC 282	**Panel: Careers in Regulatory and Quality** Talk: Industry Focus: Careers in Quality, Quality Management, and Regulatory -OR- **Meet-and-Greet with Enovis** Subject: Meet and Greet with a Medical Implant Company	Information Interview #2, Part 1 Career Discovery (Domestic & International)

9	3/10	BRC 282	**Panel: Careers in Government** Talk: Industry Focus: Careers in Government, Policy, and NGOs (FDA (Alex Chen), Policy (Melody Tan), NSF (Zarana Patel), USPTO (TBD), ERDC (TBD))	Exploration of Domestic and International Medical Technology Clusters Mock Interview with CCD
10	3/17		NO CLASSES – SPRING BREAK	
11	3/24	BRC 282	**How to be an Owl: Smart Social Skills** Subject: Business Etiquette	Informational Interview 1
12	3/31	BRC 282	**How to be an Owl: Smart Social Skills** Subject: Personal Management and Leadership	
13	4/7		**How to be an Owl: Smart Social Skills** Subject: Personal Finance and Retirement Planning	Informational Interview 2
14	4/14	BRC 282	TBD based on Enovis Meet-and-Greet	Takeaways part 2
15	4/21	BRC 282	Public Networking TBD	

ASSIGNMENTS

Course assignments are designed to support students in developing their professional skills and refining their career search. For graduate students, this may look like seeking a full-time career, medical school, or graduate school. For an undergraduate, this career search plan may include an internship search before a full-time career. Assignments are structured to give you experience connecting with professionals, building a professional network, developing specific professional skills, and being metacognitive about the growth of your own professional and social skills. Assignments will be discussed in class; all assignment due dates are reflected in Canvas.

This course has a number of class assignments that all support individuals' growth in a particular set of areas:

- Assets related to a career search (created in BIOE 627, refined in BIOE 628)
    - Professional resume or CV (revised several times)
    - Online professional accounts: LinkedIn, Handshake, Doximity
    - Personal elevator pitch
    - Personal Career Growth Plan
- Professional Development and Career Discovery
    - Growing your professional network (2 Informational Interviews)
    - Mock Interview (redo from BIOE 627)
    - Follow up on jobs you have applied for
    - Career Discovery (Domestic & International)
- Smart Social Skills
    - Personal Inventory and Self-Assessment

Your personal Career Growth Plan is a document that outlines how you plan to search for your immediate next professional position. This includes a statement of goals, examples of people in your desired roles, and examples of open positions you could apply to. To make these goals actionable, an associated calendar of your career search must also be created (e.g., attend interview practice at Rice's career center). The associated materials that support this career search include a Resume/CV, online accounts (such as LinkedIn), and a personal elevator pitch. Students who took BIOE 627 already completed this career search plan and it is expected that you keep it updated. Students taking BIOE 628 out-of-sequence should create a new Career Growth Plan.

Successful careers include ongoing Professional Development activities. One example tactic is developing and growing a professional network. To kick start your professional development activities in this class, you will conduct and write up two informational interviews with individuals in the Houston Medical Technology Industry. Another good professional development practice is following up on previous communication with others in your network, such as those you have interacted with in your career search. A third method is understanding specific industries or geographic-centered ecosystems. In this class, you will analyze distinct geographic ecosystems to understand the economy that relates to medical technology.

While in graduate school, the community surrounding you is geared towards supporting your growth and giving you regular feedback. When you move into the real world, there is an expectation that you arrive fully prepared with a set of social skills that are constructive and professional, regardless of the situation. In theory and reality, it is easier to learn many of these skills with deliberate practice. Thus, this class will focus on key social skills, such as etiquette,

communication, fashion, finance, and personal management. These topics will all fall under the umbrella of a module called "How To Be An Owl: Smart Social Skills." You will conduct a personal inventory of these social skills to chart your own personal development.

This course has no final exam.

Grading Policy

The final grade will be based on the percentages shown in Table 2.

Table 2. Calculation of Course Grade.

Assignment	% of Final Grade
Career Search Related Efforts	
Resume/CV (>2)	20%
Career Growth Plan, Online portfolio (LinkedIn), Personal elevator pitch	10%
Professional Development and Career Discovery	
Informational Interviews (2)	20%
Mock Interview	20%
Career Discovery (Domestic & International)	10%
Smart Social Skills	
Personal Inventory and Self-Assessment	10%
Attendance, participation in class and class activities	10%
TOTAL	100%

Late assignments (case studies, informational interviews, etc.) will not be accepted, except under special circumstances discussed beforehand with the course instructor.

COURSE POLICIES, UNIVERSITY GUIDELINES, AND STUDENT SUPPORT

Attendance Policy

Students are required to attend ALL sessions of the class. Attendance will be taken at the beginning of each class. Students who are more than 5 minutes late to the start of class will be marked absent. Job interviews, medical school interviews, other classes, or extracurricular activities are not valid excuses for missing class. If you are going to miss class, alert the instructor with more than 48 hours advance notice for the absence to be excused. Each unexcused absence will result in a 2.5% total grade reduction. Students choosing to miss a class for another commitment will be personally responsible for catching up on the course material.

Honor Code Policy

This course includes primarily individual work, however, collaboration is essential for success in this course and while working with others in professional settings. Students are encouraged to talk to each other, to the instructor, or to anyone else about any assignment in the course in order to produce their best work. In addition to this spirit of collaboration, when you matriculated into Rice you pledged to follow the standards of the Rice Honor Code. Details of this code and administration can be found at: http://honor.rice.edu/honor-system-handbook/. Plagiarism, false citation, false data, and any other type of academic fraud will not be tolerated.

Policy Governing the Use of AI as a Writing Aid

To ensure academic integrity and transparency, all students submitting work must disclose the use of artificial intelligence (AI) or Large Language Models (LLM) tools for generating written content within their submissions. There is a clear distinction between student-generated and AI-assisted content, and students should consider ethical usage while acknowledging technological contributions. Faculty will consider disclosed AI assistance during the evaluation of the document, especially the percentage of original content of the student vs. the writing aid.

For more information, see the document named "How to Acknowledge and Cite Generative AI in Your Submissions" located in the course Canvas site and appended to the syllabus. This policy may be revised at any time by the course administrator or superseded by the research professor directly managing a student.

Accommodations

Any student with a documented disability needing academic adjustments or accommodations is requested to speak with the course administrator and your course instructor during the first two weeks of class. All discussions will remain confidential. If you have a documented disability or other condition that may affect academic performance you should make sure this documentation is on file with Disability Support Services (Allen Center, Room 111 / adarice@rice.edu / x5841) to determine the accommodations you need. Students are expected to file documentation and share accommodation letter(s) with the administrator and course instructors early in the semester.

Title IX Information

Rice University cares about your wellbeing and safety. Rice encourages any student who has experienced an incident of harassment, pregnancy discrimination, gender discrimination, or relationship, sexual, or other forms of interpersonal violence to seek support through The SAFE Office. Students should be aware when seeking support on campus that most employees, including myself, as the administrator, your course instructor, a TA, are required by Title IX to disclose all incidents of non-consensual interpersonal behaviors to Title IX professionals on campus who can act to support that student and meet their needs. For more information, please visit safe.rice.edu or email titleixsupport@rice.edu.

Appendix: How to Acknowledge and Cite Generative AI in Your Submissions

Course Policy on Using Generative AI

You are welcome to use generative AI tools in this class as long as your use aligns with the learning outcomes or goals associated with assignments. **Please keep in mind that you are responsible for the information you submit based on a generative AI query, including any inaccurate, biased, offensive, or otherwise unethical content, regardless of whether it originally comes from an AI tool.** Please document and cite any work submitted in this course that uses AI tools. Failure to acknowledge your use of generative AI tools will be considered a violation of the Rice Honor Code.

For all assignments in this course where you use AI tools, you must submit an appendix that thoroughly documents the use of these tools. The document should include the information discussed below.

How to document the use of Generative AI in your work

For all work you submit in this class, you must acknowledge and cite any use of generative AI tools, however minor, both in your submission and in the appendix. Please follow the procedures outlined here, which include instructions on how to create an AI acknowledgment and how to footnote quoted or paraphrased AI generated content.

1. If you use a generative AI tool in any way, even if you don't include AI generated content in your final submission, an AI acknowledgment is required.

Your acknowledgment should follow these guidelines:

What to acknowledge: Provide a brief description of how you used the AI tool, including what you asked the model to do and how you used the output. **You must be specific.** If you used different AI tools in different ways and/or in other parts of an assignment, all of these usages should be described in your appendix. Depending on the tool you're using, a link may be available, or you may need to take screenshots. Here are instructions for how to use ChatGPT share links. You must include the entire chat transcript in the appendix or a link to the chat - failure to do so when using AI tools will result in your assignment receiving a zero.

Placement: Include your acknowledgment in the appendix; if specific sentences were adjusted, you must cite them appropriately in the body of the assignment.

Example
In this assignment, I acknowledge using ChatGPT-3.5 to generate an outline for this report. I entered the following prompt: "Provide an outline for a 1000 word report on the effects of technological development on income inequality in the United States." I used the output to help plan my report. I modified the outline generated, discarding several suggested body paragraphs and replacing them with my own ideas based on the research and reading I completed. The transcript of this chat is included.

Additionally, I prompted ChatGPT-3.5 to rephrase sentences of my original text in the style of an American tech industry professional and made minor changes based on its suggestions. The transcript of this chat is included.

Appendix: How to Acknowledge and Cite Generative AI in Your Submissions

Finally, I used ChatGPT-3.5 to generate three sample titles for my report. I adapted and used one of the titles it generated for me. The transcript of this chat is included.

2. A footnote citation is required if you paraphrase or directly quote any content generated by an AI tool.

If you paraphrase or directly quote from an AI tool, cite it in a footnote for all assignments (including minor homework assignments). Most citation style guides have not yet released formal guidelines for citing generative AI, so please use the following template as a guide for formatting your footnote.

Footnote Template

[1] [Description of how you used the tool]. [Exact prompt: ...]. [Description of any additional processing or revisions]. [Model + Version], [Output date]. [Refer to a link or online appendix if needed to document your use of the AI tool fully].

Example as it appears in an assignment

[1] This paragraph is quoted directly from text generated by ChatGPT. Prompt: "What procedures should be taken to avoid the misuse of generative AI in education?". We fact-checked the output but did not revise any of the text. Open AI, ChatGPT-3.5, August 15, 2023.

Footnote Template Content	**Example**
Description of how you used the tool	This paragraph is quoted directly from text generated by ChatGPT.
Prompt: “Exact prompt”	Prompt: "What procedures should be taken to avoid the misuse of generative A.I. in education?".
Description of any additional processing or revisions	I fact-checked the output but did not revise any of the text.
Model + Version	Open AI, ChatGPT-3.5,
Output date	August 15, 2023.
Refer to a link or online appendix if additional details are required to document your full use of the AI tool.	

Appendix: How to Acknowledge and Cite Generative AI in Your Submissions

3. ## If you do not use any AI tool to create your assignment, you may acknowledge that in a footnote.

   It is expected that most of what you write will be composed and written solely by you or your team. If you did not use any AI tool for your assignment, please acknowledge that with a footnote. If you do not choose to acknowledge that an AI tool was not used, that is your prerogative, but it will be assumed. Conversely, if you use an AI tool in any way to generate your assignment and do not disclose it, that will be considered a violation of the Rice Honor Code.

Additional Thoughts

These documentation guidelines only apply to BIOE 628. Other courses with the same instructor, other instructors, organizations, teams, or companies may require different documentation styles, formats, or content.

Since AI citation and acknowledgment practices are developing alongside their uses, we will refine our practices as we progress throughout the semester. Propose a change if you have one, and we'll discuss it as a class.

Acknowledgments

No AI or LLM was used in the creation of this text. This guide was created using information from the following sources:

- Referencing Generative AI (from Victoria University)
- ChatGPT and other generative AI tools (from the University of Queensland)
- Referencing AI (From Latrobe University)
- Acknowledging Use of AI Technologies and Tools (From University of Melbourne).

The Course Policy on Using Generative AI was adapted from statements by the University of Texas at Austin and the University of Pennsylvania.