BOARD # 26: Work in Progress: Integration of Medical School and Biomedical Engineering Curriculum through the Physician Innovator Training Program (PITP)

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As the Senior Associate Dean of Clinical Science Education and Educational Technology, Dr. Warren Wiechmann pushes faculty to leverage tools and methodologies, such as simulation and gamification, to better engage and inspire learners. With the understanding that outstanding medical education requires faculty who excel at leveraging these innovative tools, he created and now serves as the co-director of the of the Multimedia Design Education Technology (MDEdTech) Fellowship through the Department of Emergency Medicine at UC Irvine. He also serves as the lead architect for the iMedEd Initiative at the UC Irvine School of Medicine, creating a technology-enhanced curriculum that has led to the UCI School of Medicine being recognized as an Apple Distinguished School. Through iMedEd, Dr. Wiechmann continues to focus on innovative Medical Education, focusing on exploration and testing of technologies such as Google Glass, smartphone technologies that make up the Digital Doctor's bag, Virtual and Augmented Reality, 3D Printing, and now Butterfly iQ handheld ultrasound machines.

Introduction

With the rising need for hospitals to deliver higher quality care, healthcare innovation has accelerated rapidly within recent years [1, 2]. This is due to the incorporation of new technologies such as artificial intelligence, wireless health, and personalized medicine through genomics [3, 4, 5]. Physicians need to be involved as active participants in healthcare innovation, as their input and "buy-in" can catalyze and sustain the adoption of these innovations. They must be able to work directly with engineers and understand their processes in device development, such as technical engineering, regulatory affairs, business, and intellectual property (IP) knowledge [6]. Conversely, biomedical engineering (BME) students need to partner directly with physicians and healthcare workers to understand current standards of care and unsolved problems in clinical settings to improve delivery of patient care [7, 8]. To accomplish this, medical and BME students should interact together to have a better understanding of the unmet need, technology limitations, as well as team dynamics, and how to perform collaborative problem-solving [9, 10]. Many BME undergraduate programs have integrated clinicians as mentors through clinical immersion programs [11, 12] and capstone programs (e.g. [13], [14]), however, few have utilized medical students as team members with engineering faculty and physicians acting as mentors [7, 15].

For medical students to be able to work directly with BME students to perform innovation, they need to be trained in engineering and business concepts to understand the technical requirements performed during innovation and implementation. Current medical school curricula typically do not cover these concepts, and there is limited formal innovation training integrated into medical training programs due to limited support, time, and resources [16, 17]. Some medical programs have implemented them at the graduate level through training programs that reflect the BioDesign process [18, 19], and 26 US medical schools currently offer these programs, such as those at Stanford University, Duke University, and Case Western University [20].

Integration of Biomedical Engineering (BME) into the Medical School Curriculum

After performing customer discovery, a joint program between the University of California Irvine (UCI) Schools of Medicine and Engineering, the "Physician Innovator Training Program" (PITP), was piloted in 2023 among medical and BME undergraduate students. The mission of the PITP is to train medical students in engineering and innovation and to assist BME students with an understanding of unmet clinical needs through near-peer experiential learning using the BioDesign process [18, 19].

Introduction of BME Concepts to Medical Students: To introduce medical students to innovation and engineering, a two-year elective course, "Foundations of Innovation & Engineering" was created. The course provides students with the core principles of engineering and fosters an innovative mindset to identify unmet clinical needs, develop solutions, and take their solutions from IP to IPO (see Appendix A). The course leveraged the expertise of faculty and industry to teach medical students about the iterative design process, and the technical and business language used in multidisciplinary medical innovation teams. Each session began with a focused didactic component to introduce engineering, regulatory, and business language to the students, followed by clinical cases and solutions. For engineering sessions, students performed

hands-on training using tools such as Arduino and CAD, as well as live demonstrations using educational kits designed for building microfluidics, biomechanics, and novel photonics devices.

Integration of Medical Students Teammates into the BME Capstone Teams: During their first year of the elective course, the medical students practice what they learn from the elective course by pairing students with undergraduate BME students in their senior capstone program. The capstone is a 9-month program that provides BME students with clinician, engineer, and industry mentors so that they can identify, innovate, and implement a solution to an unmet clinical need with considerations of regulatory, IP, and entrepreneurship [21]. Novel to this program, medical students were added to each team to act as near-peer team members under the guidance of the physician, engineering faculty, and industry mentors. They assisted in all aspects of the project, including the understanding of the current standard of care, their gaps, how to develop a physical design, testing their solution with consideration of regulatory affairs, and a how to complete a business model canvas. This addition of the medical students, based on feedback from prior capstone offerings, has provided individual projects significant advancement through routine clinical input on various stages of the project during daily and weekly meetings.

Future Multi-Year PITP Capstone Project and Activities: Upon completion of elective course and capstone program, PITP medical students can apply to the full PITP to develop a multi-year capstone project that is either an extension of their BME capstone experience or a novel design. They are required to participate in a summer internship during their multi-year capstone to understand how industry implement novel technologies. The students are supported by the program directors through monthly update meetings to assess their progress and provide resources and support. They are then required to present their findings during their final year of medical school, and are encouraged to participate in the UCI BME Masters of Engineering (MEng) program to further their engineering professional development. An overview of the program is provided in Appendix A as well as the extended MEng version of the program.

Assessment of Medical Student Team Member Capstone Feasibility: Given that this was the first offering of PITP, IRB exempt feedback surveys to medical and BME students, capstone instructor interviews, and application results to participate in the full PITP were analyzed (UCI IRB Exempt No. 4319). The BME students' assessment of the medical student's contribution to the team, and the instructor's observations were used to determine the value-added of the medical students to their capstone projects. Given that the first PITP pilot is currently ongoing including the capstone program, a mixed-methods approach was performed to understand 1) the initial potential value-added of the medical students in the capstone projects, and 2) the barriers observed when medical students were added to the team so that the medical student integration in the BME undergraduate capstone program can be improved. Further investigation and evaluation will be performed as a follow-up study to inform the design of the fully proposed PITP after the more formative MEng and multi-year capstone projects are performed.

Results

Medical Student Feedback: During the first offering of the two-part elective course, 37 students attended the elective course. The post-course survey found that all students were able to participate in almost all of the seminars, and students found them to be useful introductions to

the current methods of engineering design. Survey results presented in Appendix B showed that 7 out of 12 respondents found that the elective course added value to their professional development, and 58.3% of the respondents are likely to recommend the program. Qualitative results showed that many students requested assignments prior to the seminars to help them connect what they learn to clinical settings. Lastly, after performing the engineering skills training in the elective course, 22 students continued the second part of the elective and participated in the BME capstone program.

BME Capstone Instructor Feedback: Interviews conducted with the BME capstone instructors revealed that all 22 medical students were able to successfully match with a BME team. Observations team meetings showed that the medical students were able to assist BME students with the clinical aspects of understanding the unmet need. However, the instructors noted that it was difficult to match medical students to student-driven projects in which the students intended to develop a start-up company due to IP concerns. In our institution, medical students and undergraduates fall under different jurisdictions for IP as compared to graduate students and postdoctoral trainees. This does provide a challenge in IP, aside from differences in perspectives and career goals between the BME and medical students in terms of potential start-ups. Nevertheless, industry and faculty-led projects were accepting of the students, as NDAs and IP agreements were in place and widely accepted. Lastly, the instructor noted that while the medical students were able to fully contribute to the BME students' ability to understand the unmet clinical need and required validation testing portion of their designs, they had limited contributions to the prototype stage.

BME Capstone Student Participant Feedback: Throughout the medical student participation in the capstone program, engineering students were asked to rate their peers as well as the medical students (see Appendix C for the survey questions and qualitative findings). Quantitatively, all medical students scored 88.17 ± 24.14% based on the 10 questions in regard to their participation and assistance to the project and engineering students. Only two students scored low on the feedback survey (63.2 ± 11.99% and 37 ± 8.15%, respectively). Qualitatively, BME students noted that many of the medical students participated and were dedicated to the project and provided ideas. However, several noted that scheduling meetings and communication was challenging. This highlighted the need to require dedicated time within the medical student's curriculum that matches those of the BME students to ensure communication and teamwork.

Conclusion

The survey and interview results highlighted the feasibility and value-added of medical students in the BME capstone program. However, several barriers were observed, particularly the medical students' time availability as well as their ability to perform the more technical aspects of a capstone project. These preliminary findings will assist with the program's modifications during its pilot phase, namely providing a dedicated research unit for the medical students to ensure that their time is committed during the capstone program, and a further focus of hands-on engineering learning modules during their first-year elective course for more in-depth engineering skills development. Further investigation into the feasibility and acceptability of the full PITP to be integrated within the medical school curricula will be performed to develop a better program that can train the next generation of physician innovators.

References:

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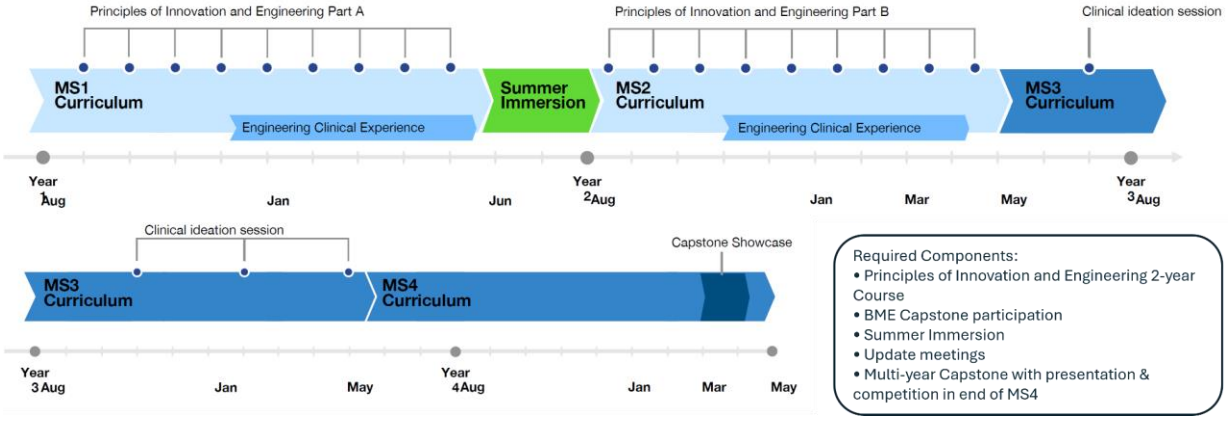
Appendix A: Overview of the Program

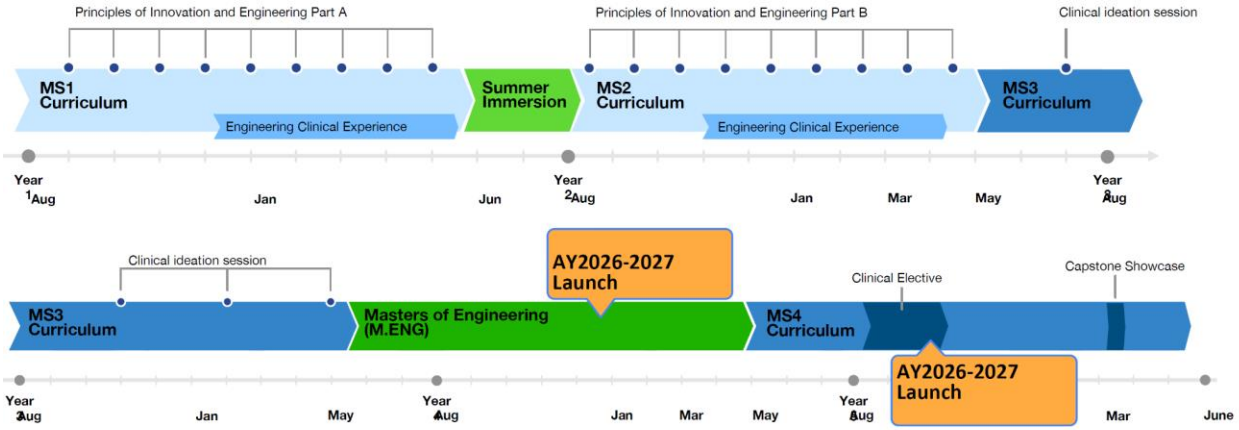
Foundations of Innovation & Engineering Elective Course Curriculum Sessions:

Sessions for Part A:
Unmet Clinical Needs
Engineering Analysis/Design: Data Acquisition
Analysis/Design: Data Analysis
Biomedical Signals and Systems (signal processing)
Engineering Analysis/Design: Computer-Aided Design (CAD)
Biomechanics II & III
Biophotonics
Micro-nano-engineering & Wrap-Up
Sessions for Part B:
Unmet Clinical Needs Refresher
Wireless health design
Industry speakers on devices at the bedside Part 1
Industry speakers on devices at the bedside Part 2
Prototyping, testing/validation, quality control
Design from concept to clinical trial – part of validation, pre-market approval
Design considerations & ethical challenges for healthcare
Basics of Intellectual Property
Principles of commercialization, fundraising, industry partnership, FDA, lean launch
Course Wrap-Up

Overview of the PITP (MS = current year in medical school).



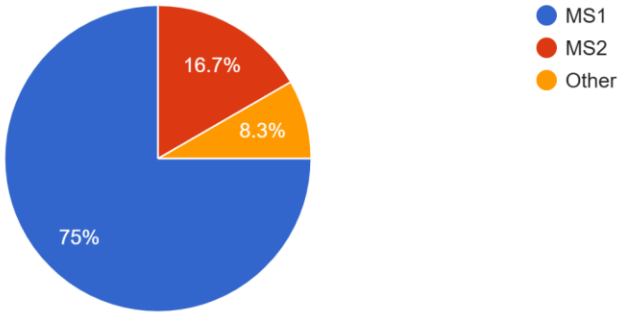
Extended MD/MEng “Physician-Innovator/Engineer” Program:



Appendix B: Medical Student Survey of the PITP Elective Course - Year 1 Part A Course

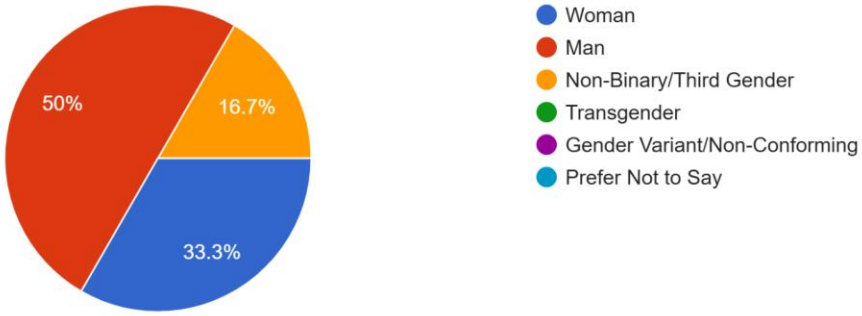
What year of medical school were you in during the 2023-2024 academic year during the inaugural year of the elective?

12 responses



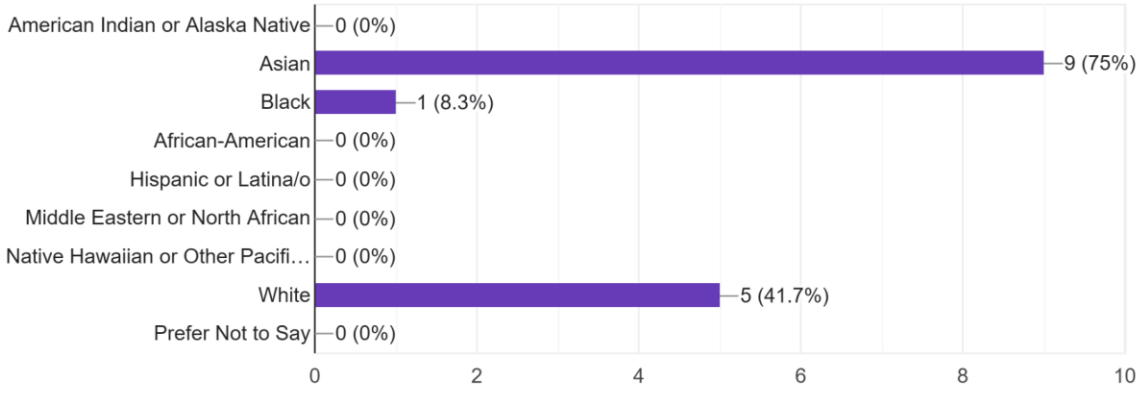
How would you describe your gender identity?

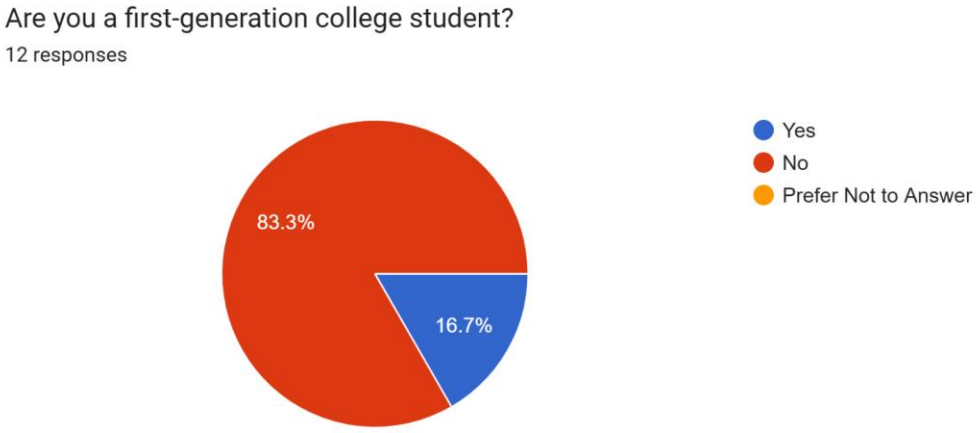
12 responses



How would you describe yourself? (select all that apply)

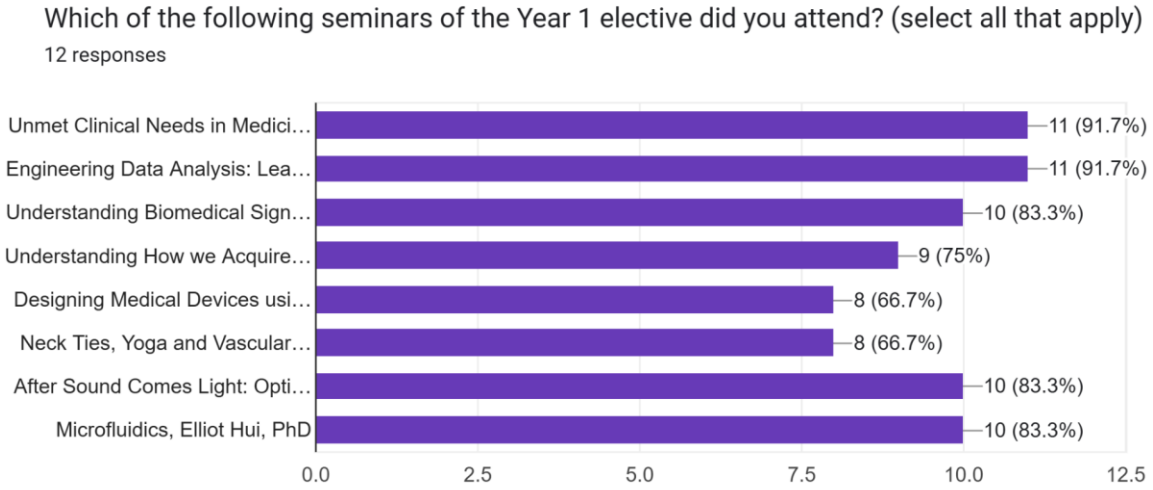
12 responses





What was your undergraduate major? If you also obtained or are obtaining a graduate degree (Masters or PhD), what was/is your field of graduate study?

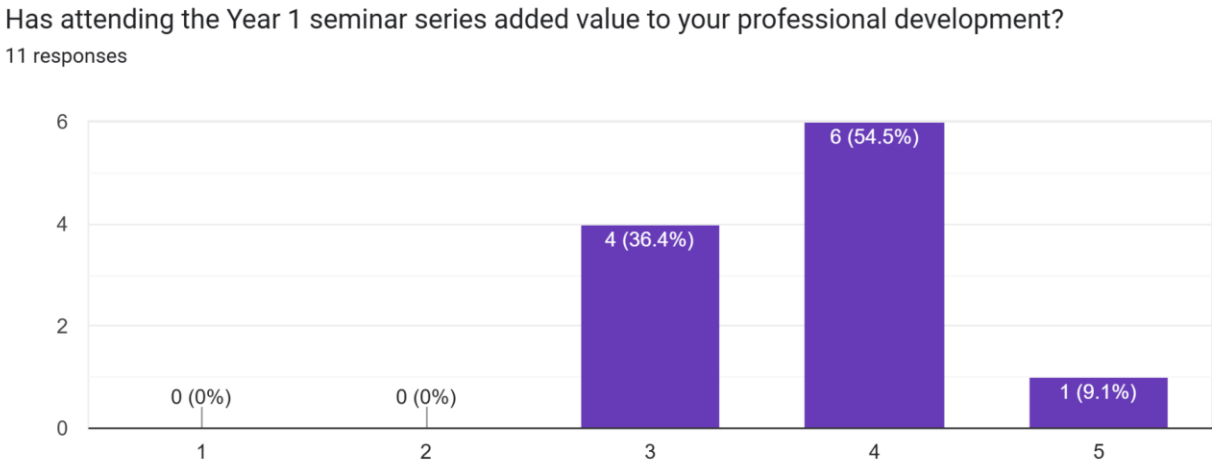
Undergraduate: Microbiology & Spanish; Graduate: Masters in Public Health
B.A. Molecular Biology
Chemistry, Religion
Neurobiology
General Biology
BA - Human Developmental and Regenerative Biology; BA (dual degree) - Visual and Environmental Studies (Animation); PhD - Stem Cell Biology
Neuroscience. PhD - undecided
Psychology
Biochemistry & Statistics
Molecular and Cell Biology (emphasis in biochemistry and molecular biology)
Biomedical Engineering
Bioengineering, Economics



If possible, please provide any feedback on any of the seminars you attended for the Year 1 elective.

I loved the seminars, and I felt that they were a great introduction to the current tools/technologies that exist. I think maybe having some sort of assignment (short!) might have been useful to get us thinking about how we can apply some of what we learned in the clinical setting.
The CAD lecture could be improved by learning how to use the devices, instead of just a tour of the facilities.
I think overall I really benefited from this course. I had interest in biomedical engineering, but was not sure about how the medical industry is actually benefiting from all kinds of research. As an MDTP student, I also appreciated potential career paths that I have not considered before such as detailed explanation of being an entrepreneur in the biomedical industry. As a medical student, I would appreciate more information on research that is currently taking place at UCI. For example, a list of researchers or labs that are relevant to the lecture at the end, or a brief introduction of many exciting biomedical engineering research on campus.
I quite enjoyed the more interactive seminars like the microfluidics, as well as the lectures that go more in-depth into engineering heavy topics as I enjoy the exposure to these ideas that I didn't get from my undergraduate experience
I enjoyed the seminars this year.
All of the seminars were great! It would be helpful if we could increase engagement with the faculty, perhaps by including students in their labs or by formatting the discussions in a more conversational style
I believe the coding seminar could be fleshed out further, perhaps using more standard tools (i.e. not an online version of Octave as a Matlab replacement; I think an introduction via a language used commonly outside of pure-engineering domains like Python could also be very beneficial and more understandable).

Generally enjoyed the seminars. Some feedback - would love for more hands-on components (potential 1 hr lecture, 1 hr hands on activity format with the latter portion being group coding, building a device, discussion etc) - would love to have integration from the college of engineering with small group sessions (let us discuss ideas directly with those who have worked with device design or who know about engineering). I honestly think this elective could benefit those who are in the engineering school as well - particular feedback about the "Understanding Biomedical Signals and Systems in Healthcare" lecture: It felt like Dr. XXX was dismissive of some student questions and became defensive when asked about the adaptations to more race-inclusive technology. overall, he had a good lecture, but could be adapted to be more inclusive and open.
I think that the seminars were well done. They provide great background for medical students without engineering backgrounds. The only thing I would have suggested is some sort of capstone assignment, but thats what the second year is for.
They were wonderful! I just had limited time.



Which seminar topics or aspects did you find most informative for the Year 1 elective that you have just completed?

Unmet Clinical Needs in Medicine! This was useful in helping me think about the direction of the project that I might want to develop.
The topics which provided me with skills and tools that I could apply directly to the projects I am currently working on (coding, signal/noise, medical device data)
The lecture by Dr XXX was very intriguing and informative in terms of envisioning the human body as an object that follows the laws of physics.
I thought that the unmet clinical needs session was a great introduction to the course, and microfluidics was a great way to close it out

I was greatly interested in hearing about the process of starting a company and ways to end the project.
Dr. XXX and XXX's lectures on biomedical systems and sensors just because it's an area that is particularly interesting to me in terms of innovation and the types of readings generated by the devices. I quite enjoyed the more physics-heavy aspects of these lectures.
I really enjoyed the lectures that related directly back to clinic, or expanded on medical concepts that I was interested in. Namely the optics, signal integration, and the physics talks.
I think topics that introduced successfully implemented ideas (ex: Unmet Clinical Needs in Medicine, XXX, PhD, XXX, PhD) and topics that demonstrated ways to integrate newer mathematical models within medicine (Understanding Biomedical Signals and Systems in Healthcare, XXX, PhD) were very helpful
Any topics which were explained through or primarily concerning direct clinical use and did not water down their explanations too much (i.e. Optics, CAD, signals & system).
I generally felt that they all were informative, but the more informative sessions either provided more detail on a specific topic or talked about direct applications.
I believe that the most informative session for most students was learning about the unmet needs was very interesting because it provided context on how we can design creative solutions to long-standing problems. As someone who went through the BME curriculum, I did not personally learn anything particularly new, but I did get quite the refresher on some topics and am satisfied with getting to see what professors thought the most applicable things for medical students to learn from their respective courses/topics.

What were the strengths of the Year 1 seminar series?

Lots of introduction
Introducing different aspects of engineering that are used in medical innovation
There was a variety of topics covered and a decent amount of hands-on opportunities.
I appreciated the wide field that this course covered in giving me a taste of what each biomedical engineering field is like.
It's a very bold and welcome introduction to engineering for medical students.
Varied, interesting topics from knowledgeable professionals.
Very knowledgeable presenters, good physical demonstration of topics (3D lab, microfluidics)
A good survey of introductory topics across a wide range of engineering applications in medicine.
Breadth of topics made the series fun and interesting
Talked about various methods that are used to create solutions. Great conceptual learning.

What were the weaknesses of the Year 1 seminar series?

Lack of a zoom option/recorded options
Too broad, the seminars could be more specific to skills and strategies that we can use in student-lead studies
The lectures were occasionally too dense or complicated.

I think providing some sort of informative materials to follow alongside the lectures would be helpful, as it is difficult to retain information without notes to refer back to. Perhaps some reinforcing material (like a worksheet or optional assignment) would be helpful as well for review purposes.
I think the course is trying to achieve too many goal for a short amount of time. With the small amount of time that we have, I think we should focus on how each biomedical engineering field has been advancing medicine rather than being caught up in teaching us technical material. For example, I'd like to know more examples of how microfluidics has been solving problems in medicine especially ongoing research at UCI so if I get interested, I know where to get started. I think the goal should be teaching us how to become involved in research in biomedical engineering. With this in mind, I believe the following topics will be very helpful. - how does it look like to do a start up? What would I need to get started if I am interested? - If I want to learn more about certain bioengineering topics, what are some resources that we have as medical school students at UCI? Do we get online access to recordings of introductory to advanced engineering courses? - what are some conferences that are relevant where we can be exposed to the latest research in topics relevant to the lecture?
I wish there were more ways to engage deeply after finding a seminar that I enjoyed. I feel like there's a bit of a gap between where I am at in my career as a medical student and where I want to be in order to engage more deeply into the type of research I see presented at the elective.
Lack of cohesion between lectures.
Limited ability to apply our learning. Also limited interaction with students from other disciplines
I do think in general the seminars overall felt very introductory, and while I understand needing to tailor to peoples' varying levels of experience I did also primarily join this program to have a more rigorous and quantitative view of these sorts of topics. As someone who as been on the "other side" of this issue, i.e. attempting to explain technical topics to someone in healthcare not entirely familiar with the field, it is incredibly frustrating to have to water down your explanation past the point of holding its meaning just because someone doesn't "speak your language" in this regard. While broadly informative, I'm not really sure these seminars effectively bridged that language gap for the given topics. I also do strongly feel that these topics are best learned through direct instruction and application rather than a seminar course; I would have greatly appreciated homework assignments, extra reading, and similar, and did have such an expectation in mind when signing up for this course (i.e. that would not have been an unwelcome surprise or excessive at all).
At times the series felt shallow. While there is a balancing game of assigning too much work, I think that expanding the sessions with more hands on activities or specificity could benefit the series. I think other students also mentioned the possibility of pre-work or post-work (follow up content to review).
Not a lot of doing and little math. I understand that the point was mostly conceptual, but year 1 lacked the opportunity to practice them in any creative outlet. To also be fair, I missed out on some great hands-on sessions, so I may be wrong.

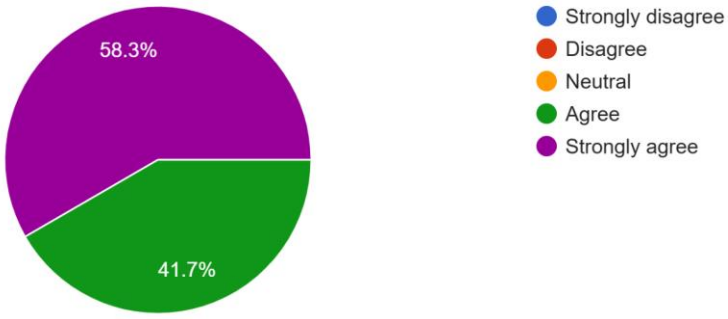
Would you suggest any improvements to the format or other aspects of the Year 1 seminar series?

Having a zoom option
Holding the seminars on Tuesdays or Thursday evenings, when most MS1s and MS2s already need to

be on campus for CF sessions.
Break down some of the topics into smaller lectures
I think having a scheduled ending time listed (and maintained) would be helpful, for organizational/planning purposes. Personally, also, I don't like being on campus that late, and most classes don't end as late as 5:00, so perhaps holding it a little earlier (to lessen the gap between when class ends/when students can leave campus) might be more convenient as well
See above.
I think following the microfluidics lecture, over the course of the years as this elective improves having a 30-minute hands-on session is a great learning experience that makes students be able to apply that learning. I wish we had that chance (e.g. CAD), for students who've never actually designed to print something to actually design and send something to the printer & receive it on the following seminar session. Overall I think it's one of if not the strongest electives UCISOM offers and despite being the first year, ran relatively smoothly! (That door sensor needs to be fixed though!)
Some sort of personal work or readings (nongraded) that we could do outside of the classes relevant to the lectures we find interesting.
1. Require/incentivize students to become part of BioEngine projects in Year 1 2. Add PhD students or engineering undergrads to these discussions
I would strongly appreciate additional background reading, problem sets for some of the content as-needed (or even flipped-classroom instruction if that's doable for some of the topics such as coding), availability of slides and lecture material after each session, recommendations for resources for further study in topics that interest us, and in general an expanded workload and greater rigor within the course. I think that this would be very beneficial in helping us develop a hands-on understanding for and appreciation of the topics that are taught, and would augment our normal MD-program experience enough to justify calling this series a Mission-Based Program as initially intended.
Repeat from previous question but - would love for more hands-on components (potential 1 hr lecture, 1 hr hands on activity format with the latter portion being group coding, building a device, discussion etc) - would love to have integration from the college of engineering with small group sessions (let us discuss ideas directly with those who have worked with device design or who know about engineering). I honestly think this elective could benefit those who are in the engineering school as well - demarking specific times for the sessions (end times for the sessions were often unclear)
I might suggest a groupthink exercise to really get to understand the teamwork involved in these projects. For example, figuring out ways to get to the moon. No calculations necessary, just conceptual things that are slowly added on. I imagine a discussion where someone talks about fuel, navigation systems, materials to withstand pressure and heat, software systems, mechanical backups in case of power loss, life support etc.

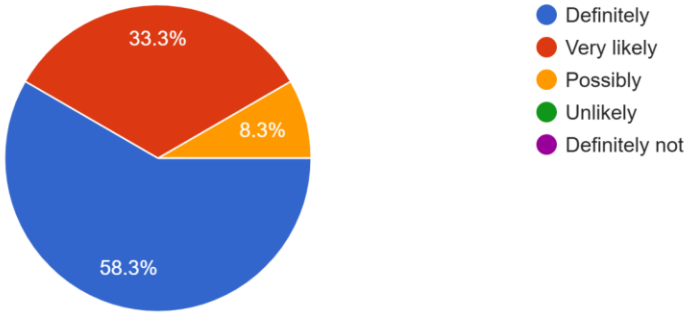
I would recommend this seminar series (Year 1 of the elective) to a student in the future.

12 responses



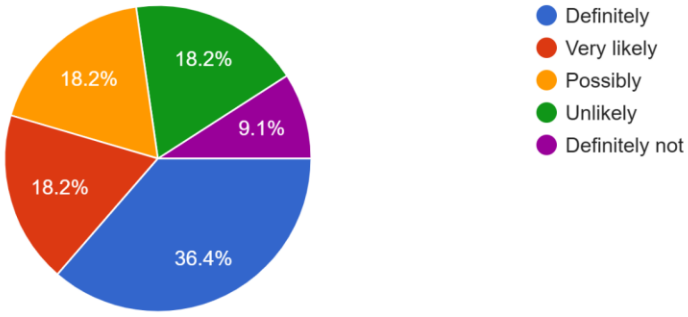
How likely are you to attend Year 2 of the elective Foundations of Innovation & Engineering, which will be offered in 2024-2025. The year 2 elective h...g, commercialization, and launch of new products.

12 responses



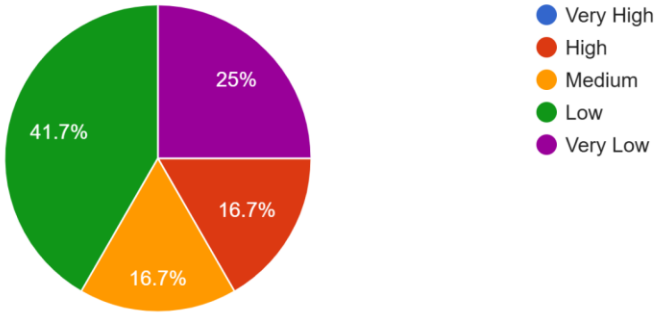
How likely are you to expand on the elective course by enrolling in the Physician Innovator Training Program over the 4 year med school curriculum or t...d school + 1 year Master of Engineering degree)?

11 responses



What is your current interest in completing a 1 year Master of Engineering degree after your MS3 year (before your MS4 year)?

12 responses



How much does your decision to complete a 1 year Master of Engineering (M.Eng) degree depend on financial aid?

12 responses

Are you interested in a summer internship program that deals with innovation and engineering, either with a company (industry) or a faculty membe... Such an opportunity can be part-time if desired.

12 responses

Appendix C: Undergraduate Biomedical Engineering Student Evaluation of Medical Student Mentors

Please quantitatively evaluate yourself and all your teammates, including your medical student mentor, according to the matrix below. Scores will be averaged and anonymized and you will see how you are doing from your teammates' perspectives and as compared to your peers. Fill out the criteria based on a score of 1-10 (10 = strongly agree, 1 = do not agree at all for this individual).

Q1	Contributes to the team in a meaningful way (helps establish and meets team's goals; competent at completing assigned tasks).
Q2	Assigned tasks and deliverables are completed on time.
Q3	Is reliable and dependable.
Q4	Made an effort to listen to and include the other team members in discussions.
Q5	Works well with other team members.
Q6	Participates in creative problem solving.
Q7	Communicates effectively and honestly. Contributes positively during team meetings.
Q8	Provides constructive feedback to teammates.
Q9	Is receptive to constructive feedback given by teammates.
Q10	Would you work with this teammate again?
Ind.	Add individual comments you'd like the instructional team to know (good and bad).

Qualitative Results of the Medical Student Evaluations from Undergraduate Biomedical Engineering Students

“Not very involved in our project, but is present at meetings.”

“Mechanical project so he couldn't help. He is also very busy as a medical student.”

“Since our team is working on an industrial device, we felt that having a medical student mentor on our team didn't help our team all that much. Our team didn't really utilize our medical student mentor during meetings or for assignments.”

“Not super involved but since we don't have a medical device it really wouldn't make sense for him to be”

“Great aid. Offers her resources and help at all times.”

“Though it was difficult to meet with XXX due to conflicting schedules, she was quick to communicate and gave thoughtful insight for our design/questions.”

“Was really good for being our medical student. Really made an effort and participated in our group meetings with mentors.”

“Haven't had the chance to work with XXX long enough + we had more scheduling conflicts here”

“It is hard to evaluate her because it is hard to get ahold of her. Yes, she responds to emails, but she is not always at our scheduled meetings. However, she provides useful feedback when we ask! We would like to see more of Lauren at our meetings because we know that she is a valuable mentor who we can learn a lot from!”

“XXX has not contributed to our ideation. She is not pro-active, has inconsistent attendance during meetings, and does not try to engage with us or provide us with resources to be successful with the project. It does not feel like she wants to be here and it is not really helping us be the best we can be.”

“XXX is our med student advisor, but for this quarter due to schedule conflicts we were unable to cooperate as much as we wanted.”

“Have come incredibly prepared and even offered advice to the team separately.”

“His dedication to this project is inspiring mostly as a grad student. He has been nothing but helpful.”

“Really nice and I appreciate his interest in the project!”

“Very communicative and on top of the work, always does the research and adds helpful information.”

“They have a schedule that changes every week so have not been able to attend regular meetings, whenever we reached out she answered back, hoping to communicate with her more as we start prototyping and considering more advanced issues about the product.”

“Not responsive to emails”

“XXX is a great MD student but she is busy this quarter and her schedule changes week to week. Our team also emailed her weeks ago with our UROP Proposal and questions about the existing medical devices for diabetes management but she did not reply.”

“XXX had one zoom meeting with us. We were not able to get much feedback. Can do better I believe.”

“Super helpful! I really like that we have a medical student mentor this year to help from the anatomical/medical side.”

“Despite having a busy schedule, XXX always tries his best to attend our meetings and provide answers from a medical perspective. He consistently gets back to us with valuable insights and research that guide our design plans.”

“XXX has been very busy this quarter, so we haven't been able to receive much guidance from him. However, when we do have meetings, he has been very helpful in guiding us through medical literature and helping us keep track of our vocabulary and terminology. It's been very helpful to have him fact check us.”

“Thank you to all my great team members”

“Attended all of the scheduled meetings even with her busy schedule, contributed good ideas”