

Abstract

The Alternative Protein Project at Johns Hopkins (APPJH) strives to address the demand for a sustainable food system by fostering academia-industry partnerships. A pivotal component of this initiative is the “Future Food Manufacturing” course, designed to equip students across all levels and departments with comprehensive knowledge and hands-on experience. This course integrates academic insights with practical applications, including a semester-long startup project that offers students direct exposure to industry practices. The connection between academia and industry cultivates future pioneers of alternative protein and accelerates sustainable food solutions globally.



Future Food Manufacturing Course

Modules

- Motivations
- Plant-Based
- Fermentation
- Cellular Agriculture
- Policies & Regulations
- Business



Structure

- Guest Lectures
- Startup Project
- Oral Presentations
- Project Closure Report
- Food Tastings
- Laboratory Experiments
- Socratic Seminars
- Discussion Posts

Guest lecturers include professors from multiple departments, industry experts, external faculty members, and local and international organizations.



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Startup Collaborations

Application form calling for mentors shared on networking platforms (e.g., GFIdeas, LinkedIn)



Teams of 2-3 students selected projects of interest and engaged with startup mentor(s)



Deliverables included midterm and final presentations and a written project closure report

Future Directions

The current trajectory for expanding professional training pathways at Johns Hopkins University is to launch an intercession course that dives into food policies and food regulations. Students will learn to write policy briefs and tour nearby national institutions to speak with leading experts firsthand.

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For more information, please contact jhualtprotein@gmail.com or visit our website at jhualtprotein.wordpress.com

Timeline of Course Development

- Jan 2021 • 2-week Food of the Future Intercession course taught by graduate students
- Feb 2021 • Alternative Protein Project chapter formed at Johns Hopkins University
- Nov 2021 • Meat Mimicry workshop hosted in Baltimore community
- Jan 2022 • 3-week Food of the Future Intercession course held
- June 2022 • Curriculum task force begins planning
- Aug - Dec 2022 • 1-credit Future Food Manufacturing course offered and led by faculty
- Aug 2023 - Current • Future Food Manufacturing course expanded to 3-credits

