Innovation Project Management for Life Sciences

MCB 4091

Fall 2025, Online Asynchronous



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Office Hours: Virtual by Zoom (dates/times to be set through student poll) or by appointment.

Canvas messages and emails will be responded to within 24-48 hours.

MCB 4091 / MCB 6096 Innovation Project Management for Life Sciences, is a 1-credit-hour course that will be co-taught for undergraduate and graduate students.

Course Description

Empowers students with practical tools to manage innovation projects typical of life science research & development. Challenges and methodologies associated with developing objectives, preparing project plans, establishing metrics, defining responsibilities, as well as mitigating risks and dealing with uncertainties will be discussed. Skills for strategic prioritization, time management, meeting facilitation, and communication will be strengthened to promote an innovative culture.

Course Prerequisites / Corequisites

Undergraduates must have completed BCS2010 Integrated Principles of Biology 1 or equivalent.

Course Learning Objectives

After this course, the student will be able to:

- Distinguish between different types of innovations and project management methodologies (e.g., Agile, Lean, Six Sigma, Waterfall)
- Select and apply appropriate tools to manage innovation projects with structure and flexibility
- Design a simple project plan and tracking dashboard
- Set objectives and priorities for a strategic project
- Explain their innovation project to inspire technical and non-technical audiences
- Conduct engaging and productive meetings to drive decisions and create an innovation culture with a diverse team

Materials and Supply Fees

Instructional materials for this course consist of only those materials specifically reviewed, selected, and assigned by the instructor. The instructor is only responsible for these instructional materials.

Project management software with some options available free through UF or others with optional purchase or free short-term trials (e.g., Smartsheet, Microsoft Project, Monday, Jira, ClickUp).

Recommended Textbook

Kerzner, Harold. *Innovation Project Management - Methods, Case Studies, and Tools for Managing Innovation Projects.* John Wiley & Sons, 2019.

https://app.knovel.com/hotlink/toc/id:kpIPMMCST2/innovation-project-management/innovation-project-management

Free textbook access through the UF Library Knovel platform with login through UF email address. https://service.elsevier.com/app/answers/detail/a id/14354/supporthub/knovel/

Required Software

E-learning Canvas system: For technical questions and tutorials, please visit the LSS site (https://lss.at.ufl.edu/help/Student Faq) and/or the UF Help desk (https://helpdesk.ufl.edu/help/Student Faq) and/or the UF Help desk (https://helpdesk.ufl.edu/help/student Faq) and a student factor of the UF Help desk (https://helpdesk.ufl.edu/help/student And the UF Help desk (https://helpdesk.



Course Schedule

Module	Dates	Lecture Due Noon ET	Topic
0	Aug. 21-24	Sun. 8/24	Orientation
1	Aug. 25-31 (9/1, Labor Day)	Sun. 8/31	SMART Start- Introduction and Objectives
2	Sept. 2-8	Sat. 9/6	Innovations in Your Life- Types of Innovation Projects
3	Sept. 9-15	Sat. 9/13	Focus on the BIG Picture- Strategic & Business Plans
4	Sept. 16-22	Sat. 9/20	Project Planning Toolbox
5	Sept. 23-29	Sat. 9/27	Project Management Software
6	Sept. 30-Oct. 6	Sat. 10/4	Are We There Yet?- Metrics and Dashboards
	Oct. 7-13		[PM / Buffer Week]
7	Oct. 14-20 (10/17-18, HoCo)	Sun. 10/19	Breakthroughs & Barriers- Disruptive Innovation & Roadblocks
8	Oct. 21-27	Sat. 10/25	Communicating Ideas to the World- Brand & Pitch
9	Oct. 28-Nov. 3	Sat. 11/1	An Innovative Culture Promoting Efficient Decisions & Productivity-Time Management & Decision Making
10	Nov. 4-10	Sat. 11/8	Success or Failure?- Change and Risk Management
11	Nov. 12-17 (11/11, Vet Day)	Sat. 11/15	Who is Doing What?- Roles & Responsibilities
12	Nov. 18-23	Sat. 11/22	Bright Ideas for Fun Meetings- Facilitation & Brainstorming
	Nov. 24-29		Thanksgiving Holiday
13	Nov. 30-Dec. 3	Wed. 12/3	Case Studies / Go Out and Change the World!- Review

Course Assignments

Undergraduate students will apply innovation project management tools to basic projects of interest.

- Strategic Planning and Communication
 - Review the syllabus and course Canvas site and prepare a course-related SMART objective.
 - Develop strategic planning documents including project objectives, scope, pros/cons and SWOT analysis as the big picture encompassing the project.
 - Compose a creative, concise pitch and brand to communicate the key aspects of a project.
- Innovation Culture
 - Identify and categorize innovations in research and daily life.
 - Define roles and responsibilities necessary for decision making.
 - Facilitate an engaging meeting or brainstorming session including an agenda, pre-work assignments, meeting notes and outcome summary.
- Project Planning Tools
 - Create a simple project plan using project management software to include dependencies, contingencies, and buffer.
 - Design a dashboard displaying value-based metrics with current status and goals.
 - \circ Assess risks and assumptions associated with an innovation project along with planned testing and mitigations.
- Quizzes (undergraduate students only)
 - Reinforce learning through midterm and final quizzes will be based on the course lectures and reading. Quizzes will be open notes/books and not have a time limit and will allow multiple attempts but must be independent, individual effort.

Due Dates and Points

Lectures

Lecture videos include embedded knowledge checks worth 1 point each for a total of 60 out of 70 points possible. These are due by 10:00 am U.S. Eastern time on Saturday of each Module unless otherwise noted (see Canvas for dates).

Assignments

Assignment details and rubric will be available in Canvas. These are due by Noon U.S. Eastern time on Monday of each Module unless otherwise noted.

Assignments	Due Date Noon ET	Points
Syllabus Review & Course Objectives	Tues. 9/2	20
Innovation Identification	Mon. 9/8	20
Project Strategy (Obj., Scope, Pros/Con, SWOT)	Mon. 9/15	40
PM SW Exercise	Mon. 9/29	20
Baseline Project Plan	Mon. 10/6	60
Dashboard with Metrics	Mon. 10/13	40
Midterm Quiz (Undergrad only)	Mon. 10/20	40
Project Pitch & Brand	Mon. 10/27	40
Risk Assessment	Mon. 11/10	20
Roles & Responsibilities Matrix	Mon. 11/17	20
Meeting Facilitation	Sun. 11/23	40
Final Quiz (Undergrad only)	Mon. 12/8	40

Interactions

You will have the option of selecting three (3) out of five interaction activities for up to a total of 90 points. These will supplement the learning from the lectures and assignments and build connectivity with classmates. You must meet the initial post date to participate in the discussion. Each interaction will be worth 30 points requiring initial post, responses, and replies. NO late submissions will be permitted due to the timeframe for activity between participants. The top three scores from interactions will be applied.

Interactions	Initial Post Date	Interaction Posts
Intro/Objectives	Tues. 9/2	Sat. 9/6
Synchronous Online PM SW Work Session	TBD (9/23-29)	TBD (9/30-10/6)
Disruptive Innovation	Sun. 10/19	Sat. 10/25
Communication Showcase	Sat. 10/25	Sat. 11/1
Case Studies	Sun. 11/30	Wed. 12/3

Class Expectations and Make-Up Policy

Please see UF policy at <u>Attendance Policies</u>. Excused assignment extensions must be consistent with university policies in the <u>Undergraduate Catalog</u> and require appropriate documentation. **Lectures and Assignments will receive a deduction of 10% per each week overdue (not prorated by day/hour).**

Grading Policy

In compliance with current UF grading policies for assigning grade points

(https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx):

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	Range			Grade	Grade Points
	94.0%	to	100%	A	4.00
	90.0%	to	< 94.0%	A-	3.67
	87.0%	to	< 90.0%	B+	3.33
	84.0%	to	< 87.0%	В	3.00
	80.0%	to	< 84.0%	B-	2.67
	77.0%	to	< 80.0%	C+	2.33

74.0%	to	< 77.0%	С	2.00
70.0%	to	< 74.0%	C-	1.67
67.0%	to	< 70.0%	D+	1.33
64.0%	to	< 67.0%	D	1.00
60.0%	to	< 64.0%	D-	0.67
0%	to	< 60.0%	Е	0.00

The instructor will make every effort to have each assignment graded and posted within one week of the due date. Discussion boards will not be graded until the end of the discussion period to encourage ongoing engagement.

Course Evaluation

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens. Students can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or the central portal at https://my-ufl.bluera.com. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/. Additional anonymous feedback on the course may be requested, but participation is not required.

Netiquette and Communication Courtesy

It is important to recognize that the online classroom is in fact a classroom, and certain behaviors are expected when you communicate with both your peers and your instructors. These guidelines for online behavior and interaction are known as netiquette. Disrespectful interactions will not be tolerated. Additional guidelines are included on the Canvas site.

Academic Honesty Policy

University of Florida students are bound by the Honor Pledge. On all work submitted for credit by a student, the following pledge is required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Student Honor Code and Conduct Code (Regulation 4.040, https://policy.ufl.edu/regulation/4-040/) specifies a number of behaviors that are in violation of this code, as well as the process for reported allegations and sanctions that may be implemented. All potential violations of the code will be reported to Student Conduct and Conflict Resolution. If a student is found responsible for an Honor Code violation, the instructor will enter a Grade Adjustment sanction which may be up to or including failure of the course.

Appropriate Use of Artificial Intelligence

Students are encouraged to explore and utilize a variety of AI tools and libraries to enhance their understanding and practical skills. Students should consider the potential biases and implications of AI and make efforts to mitigate any discriminatory or harmful effects. When using AI tools, students should ensure that they comply with the respective licenses and terms of use set by the tool developers. Students should properly attribute any code or resources used from external sources, including AI libraries, frameworks, or pre-trained models.

In this course, AI-generated work may be used collaboratively and must be clearly acknowledged. AI programs are not a replacement for human creativity and critical thinking. It is the student's responsibility to review and ensure the appropriateness and accuracy of assignment submissions. Failure to cite and correctly edit work will result in a reduced grade and could be referred to Student Conduct and Conflict Resolution in consistent or severe cases.

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.

Minimum Technical Skills and Technology Requirements

A basic understanding of computer and word processing software usage is required. The University of Florida expects students taking online courses to acquire computer hardware and software appropriate to their degree program. Most computers are capable of meeting the following general requirements.

- Broadband connection to the internet and related equipment (cable/DSL modem)
- Microsoft Office Suite installed (provided by the university)
- Adobe PDF Reader (free online: https://get.adobe.com/reader/)

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the <u>Notification to Students of FERPA Rights</u>.

Campus Helping Resources:

Health and Wellness

U Matter, We Care: https://umatter.ufl.edu/

If you or a friend is in distress, please contact <u>umatter@ufl.edu</u> or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: 3190 Radio Road, 352-392-1575,

http://www.counseling.ufl.edu provides counseling services, groups and workshops, outreach and consultation, self-help library, and wellness coaching

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or <u>police.ufl.edu</u>.

Academic Resources

E-learning technical support: https://elearning.ufl.edu/, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

Career Resource Center: https://career.ufl.edu/, 352-392-1601, First Floor Reitz Union. Career assistance and guidance.

Library Support: https://uflib.ufl.edu/ Various ways to receive assistance with respect to using the libraries or finding resources.

Student Success Initiative: https://studentsuccess.ufl.edu/ Pathways to student support through advising, coaching, peer mentoring and tutoring

Writing Studio: https://writing.ufl.edu/writing-studio/, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

Disability Services: https://disability.ufl.edu/, 1 Reid Hall, 352-392-8565. Registration, accommodations for disabilities.

On-Line Students Complaints for Online Course: https://pfs.tnt.aa.ufl.edu/state-authorization-status/#student-complaint

Tips for Success in this Course:

Taking a course online can be a lot of fun! Here are some tips that will help you get the most of this course while taking full advantage of the online format:

- Schedule "class times" for yourself. It is important to do the coursework on time each week. You
 will receive a reduction in points for work that is turned in late.
- Read the materials on Canvas carefully. There is a lot of helpful information that can save you time and help you meet the objectives of the course.
- o Check off the items in the course summary located in the course syllabus as you progress.
- o Take full advantage of the online discussion boards. Ask for help or clarification if you need it.
- Do not wait to ask questions! Waiting to ask a question might cause you to miss a due date.
- o Do your work well before the due dates. Sometimes things happen. If your computer goes down when you are trying to submit an assignment, you will need time to troubleshoot the problem.
- To be extra safe, back up your work to an external hard drive, thumb drive, or through a cloud service.