
International Project Week for
Interdisciplinary Research-Oriented Digital Learning
Summer 2020 | Syllabus for International Participants



COURSE NAME	INSPIRED 2020 Virtual Team Project	
TOPIC	Interstellar Farmacy Manufacture design of a functional, sustainable, and efficient bio-reactor generating specialized nutrients and therapeutics in extreme conditions of outer-space stations and off-world colonies of the future	
LANGUAGE	English	
PREREQUISITES	Enrolled in a university undergraduate or graduate program General interest in Engineering & Life Sciences and interdisciplinary research in an international environment Pass grade for the INSPIRED 2020 e-Learning Basic Course	
COURSE SCHEDULE		
Duration	3 weeks	June 22 – July 10
Format	weeks 1 & 2	supervised project work in virtual teams
	week 3	preparation and realization of the final team presentation and project dossier as well as individual essays

COURSE DESCRIPTION

In the course of the virtual project work, which includes two closely supervised and guided project weeks and an additional self-organized project week, the students have the opportunity to experience project work in a typical (bio-)engineering environment. In remote and distributed international and interdisciplinary teams of 6-8 participants, they develop solutions to a challenging bio/engineering-based problem.

In the first two weeks, their team and project work is continuously supported by trained mentors and advisors who promote professional and social learning, whereas specific science questions are addressed by senior faculty members and professors during so-called 'Expert Interviews'.

During the final week of their course, the participants have the time and opportunity to refine their interdisciplinary concepts to ultimately present them to the audience of (their peers and) experts. Support is available on request.

The student teams work continuously in a virtual collaborative environment that supports their communication and work processes.

LEARNING OBJECTIVES

On successful completion of the course, students will be able to:

- Develop a goal-oriented solution to a complex problem through interdisciplinary project work
- Comprehend and work on an interdisciplinary assignment guided by the driving tenets of synthetic biology, materials science, and production management and product development principles of mechanical engineering
- Learn and use the functions of collaborative online tools, *e.g.*, video conferencing tools, collaborative whiteboards, collaborative writing and presentation tools
- Facilitate effective virtual collaboration in distributed and remote teams
- Plan, organize, and carry out tasks independently
- Learn and apply project management skills, particularly agile project management
- Discuss possible solutions and reach informed decisions based on relevant criteria
- Present the outcomes of their work to an audience (and discuss them competently)
- Reflect on and appreciate the academic and social diversity of the international research community
- Hone their English language skills

We hope the INSPIRED networking platform will help expand our participants' education and career perspectives.

RESOURCES (online; deposited on the open-source Moodle platform)

- Basic e-Learning Course content Available from June 1
- Script and project guide Available on kickoff of the Virtual Team Project
- Supplemental resources Available on request at the Virtual Helpdesk

EVALUATION

Category/Assignment	%	Assessment
Final presentation: scientific concept	75	Experts: detailed evaluation criteria defined in the script - Team performance
Written team report: dossier	10	Program supervisors/coordinators: template provided in course of the Virtual Team Project - Team performance
Individual contribution: essay	15	Program supervisors/coordinators: template provided in course of the Virtual Team Project - Individual performance

GRADING

Pass/fail-based

Number grades (1.0, very good – 5.0, fail) may be awarded if required/requested

TRANSFER OF CREDITS

4 CP ECTS (2 US/Canadian credit semester hours)

Awarded upon fulfillment of all assignments

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