

Bio-inspired project (COO4101)

Wegens Covid19 kan mogelijk afgeweken worden van de onderwijs- en evaluatievormen. Dergelijke afwijkingen zullen via Ufora worden gecommuniceerd.

Cursusomvang *(nominale waarden; effectieve waarden kunnen verschillen per opleiding)*

Studiepunten 9.0 **Studietijd** 270 u **Contacturen** 38.7 u

Aanbodsessies en werkvormen in academiejaar 2020-2021

A (jaar)	Engels	Gent	groepswerk	8.75 u
			hoorcollege	2.5 u
			werkcollege	27.5 u

Lesgevers in academiejaar 2020-2021

Shawkey, Matthew	WE11	Verantwoordelijk lesgever
Christiaens, Yannick	TW18	Medewerker
Adriaens, Dominique	WE11	Medelesgever

Aangeboden in onderstaande opleidingen in 2020-2021

Master of Science in Biology	stptn	aanbodssessie
	9	A

Onderwijstalen

Engels

Trefwoorden

Innovation, bio-inspired, project, creativity, entrepreneurship

Situering

This course is an obligatory course within the minor program 'Bio-inspired Innovation and Sustainability' of the Master program in Biology. Students will put into practice the conceptual and theoretical knowledge and skills obtained from the compulsory courses within that minor program, and will allow students to fully develop and control the complete process from brainstorming till product development (relevance depending on the project topic).

Inhoud

The course comprises (1) a lecture to inform the students about the content, planning and expectations of the course, (2) two workshops on the process of working out a concept design, building up a portfolio, basics of budget planning, etc., (3) min. 2 guest lectures by people from the professional field, (4) min. 3 follow-up meetings with the course lecturers on the project progress, (5) pitch presentation by students on their project idea and plans, and (6) project presentation by students of the realized outcomes in their project.

Begincompetenties

No specific competences are required. Having followed the compulsory courses ('Dare to venture' and 'Basic entrepreneurship') is strongly advised.

Eindcompetenties

- 1 Rely on biological knowledge and skills to identify materials, designs, processes, etc. that can have potential for innovation and sustainability.
- 2 Develop and fine-tune ideas towards specific concept designs with a valorization potential.
- 3 Translate conceptual ideas from biology towards applicable tools that meet existing potentials relevant for society, industry, biomedicine, ...
- 4 Work out a realistic business plan related to the project topic.
- 5 Present the idea and potentials towards stakeholders, to attract collaboration,

funding, ...

6 Translate conceptual ideas towards product development.

7 Work in a team context, including planning, task division, ...

Creditcontractvoorwaarde

Toelating tot dit opleidingsonderdeel via creditcontract is mogelijk mits gunstige beoordeling van de competenties

Examencontractvoorwaarde

Dit opleidingsonderdeel kan niet via examencontract gevolgd worden

Didactische werkvormen

Begeleide zelfstudie, groepswork, hoorcollege, project, werkcollege

Leermateriaal

Referenties

Product Design Portfolio (A. Milton, 2011) (<https://www.amazon.com/Product-Design-Portfolio-Alex-Milton/dp/1856697517>)

Vakinhoudelijke studiebegeleiding

Several contact moments are planned by default, where students interact one-on-one with the lecturers about the progress, pitfalls, problems, opportunities, etc. of their project. Additional contact moments are possible on the demand of the student.

Evaluatiemomenten

periodegebonden en niet-periodegebonden evaluatie

Evaluatievormen bij periodegebonden evaluatie in de eerste examenperiode

Mondeling examen, verslag

Evaluatievormen bij periodegebonden evaluatie in de tweede examenperiode

Mondeling examen, verslag

Evaluatievormen bij niet-periodegebonden evaluatie

Mondeling examen, portfolio, participatie, peer-evaluatie

Tweede examenkans in geval van niet-periodegebonden evaluatie

Examen in de tweede examenperiode is enkel mogelijk in gewijzigde vorm

Toelichtingen bij de evaluatievormen

Report: students write a business plan related to the project topic and planned outcome

Oral examination: pitch presentation (at start), final project presentation (at the end)

Portfolio: students compile a portfolio of the progress, self-evaluation and remediation of the process they make (evaluated during the intermediate contact moments)

Participation: students are evaluated on different aspects related to their active participation (incl. taking initiative, working focused, interacting with stakeholders and users, ...)

Peer-assessment: team work is being evaluated by co-members of the team

Eindscoreberekening