

## Blue Growth: An Interdisciplinary Approach to Research and Innovation in the Marine Environment (1002603)

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

**Studiepunten 3.0** **Studietijd 90 u**

**Aanbodsessies in academiejaar 2024-2025**

**Lesgevers in academiejaar 2024-2025**

**Aangeboden in onderstaande opleidingen in 2024-2025**

**stptn**

**aanbodsessie**

### Onderwijstalen

Engels

### Trefwoorden

Blue growth, marine ecosystems, coastal engineering, blue biotechnology, aquaculture, marine pollution and waste solutions, and wind, wave and tidal energy

### Situering

This course is reflecting (1) the world-wide increase in maritime and marine research and development activities and (2) important strategic decisions made by the EU and the UN in recent years to protect our oceans and seas (Decade of the Ocean, Sustainable Development Goals). The course will focus on fundamental and applied research and innovation areas concerning the threats and opportunities of marine systems in a changing global environment.

### Inhoud

The course will cover a general introduction to both maritime engineering and (applied) marine bio-engineering aspects of recent developments in the sustainable use of marine (eco)systems:

Maritime engineering:

- Wind energy
- Wave and tidal energy
- Coastal protection
- Harbour construction
- Data and information resources for blue growth operators

Marine (applied) bio-engineering:

- Aquaculture
- Marine litter & waste solutions
- Building with nature
- Marine spatial planning
- Offshore multi-use platforms,
- Blue biotechnology

Students can then select one case-study or topic for in-depth study and analysis through micro-teaching and individual project work during the course.

### Begincompetenties

(Applied) Marine ecology, General Chemistry, General Physics

### Eindcompetenties

- 1 Insight in the world-wide increase in maritime and marine R&D and valorization

activities

2 Knowledge on the fundamental and applied research and innovation areas of the blue economy

3 Up to date insights into current developments in Blue Growth research and application areas

#### **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**

Hoorcollege, Zelfstandig werk, Peer teaching

#### **Studiemateriaal**

Geen

#### **Referenties**

##### **Building Industries at Sea: 'Blue Growth' and the New Maritime Economy**

Kate Johnson, Heriot Watt University, UK

Gordon Dalton, University College Cork, Ireland

Ian Masters, Swansea University, UK

ISBN: 9788793609266

#### **Vakinhoudelijke studiebegeleiding**

#### **Evaluatiemomenten**

periodegebonden en niet-periodegebonden evaluatie

#### **Evaluatievormen bij periodegebonden evaluatie in de eerste examenperiode**

Mondelinge evaluatie, Werkstuk

#### **Evaluatievormen bij periodegebonden evaluatie in de tweede examenperiode**

Mondelinge evaluatie, Werkstuk

#### **Evaluatievormen bij niet-periodegebonden evaluatie**

Participatie, Werkstuk

#### **Tweede examenkans in geval van niet-periodegebonden evaluatie**

Niet van toepassing

#### **Toelichtingen bij de evaluatievormen**

End of term assessment (final exam assignment, oral examination): 60%; continuous assessment (assignment, participation): 40%;

#### **Eindscoreberekening**

*Students who eschew period aligned and/or non-period aligned evaluations for this course unit may be failed by the examiner.*