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| Student name |  | e-mail |  |
| Student number |  |  |  |

**MSc ODE 1st YEAR**

**COURSES** **ODE Core** (Obligatory 20 ECTS)

|  |  |  |
| --- | --- | --- |
| Course code | Course name | EC |
| CIE4325 | Ocean Waves | 6 |
| MT44020 | Motions & Loading of Structures in Waves | 5 |
| MT44045 | Introduction to Ship and Offshore Hydromechanics | 3 |
| OE44005  OE44010 | Introduction to Offshore Engineering | 3 |
| OE44010 | Introduction to Dredging Engineering | 3 |
|  | **Total** | **20** |

**COURSES** **ODE Obligatory elective 1**: Choose OE44076 or OE44145 (6 ECTS)

|  |  |  |
| --- | --- | --- |
| Course code | Course name | EC |
| OE44076 | Offshore Renewable Energy | 6 |
| OE44145 | Research Exercise | 6 |
|  | **Total** | **6** |

**COURSES** **ODE Obligatory elective 2**: Choose CIE4130 or MT44085 (4 or 5 ECTS)

|  |  |  |
| --- | --- | --- |
| Course code | Course name | EC |
| CIE4130 | Probabilistic Design | 4 |
| MT44085 | Ultimate Strength in Marine Structures | 5 |
|  | **Total** |  |

**COURSES** **ODE Personal development:** Choose min. 3 ECTS, max. 6 ECTS

|  |  |  |
| --- | --- | --- |
| Course code | Course name | EC |
| TPM002A | Water Ethics | 3 |
| WM0320TU  448 | Ethics and Engineering | 3 |
| WM0349WB | Philosophy of engineering science and design | 3 |
| WM0353TU | Philosophy of engineering science and design | 3 |
| WM0375TU | Ethics of Technological Risks | 3 |
| WM1301TU | Ethics of Transportation | 3 |
|  | **Total** |  |

**COURSES ODE** **SPECIALISATIONS**: Choose your specialisation\* (13-19 ECTS)

\* Students can also choose courses through the specializations, in consultation with the head of studies.

|  |  |  |
| --- | --- | --- |
| Course code | Course name | EC |
|  | **ODE Bottom Founded Offshore Structures, Arctic & Wind (16 ECTS)** | |
| CIE4140 | Structural Dynamics | 4 |
| OE44096 | Bottom Founded Offshore Structures | 6 |
| OE44100 | Floating Structures & Offshore Moorings | 6 |
|  | **ODE Dredging Engineering (18 ECTS)** | |
| OE44030 | Offshore Geotechnical Engineering | 4 |
| OE44035 | Dredging Pumps & Slurry Transport | 4 |
| OE44040 | Dredging Processes I | 4 |
| OE44045 | Dredging Processes II | 3 |
| OE44050 | CFD for Dredging and Offshore Engineering | 3 |
|  | **ODE Floating Offshore Structures (13 ECTS)** | |
| CIE4140 | Structural Dynamics | 4 |
| OE44100 | Floating Structures & Offshore Moorings | 6 |
| OE44125 | Dynamic Positioning | 3 |
|  | **ODE Structural Design & Analysis (14 ECTS*) (Instructor: Carey Walters)*** | |
| CIE4140 | Structural Dynamics | 4 |
| MT44030 | Torsion and Shear in Marine Structures | 5 |
| OE44085 | Fatigue Strength of Marine Structures | 5 |
|  | **ODE Offshore Renewable Energy (15 ECTS)** | |
| CIE4140 | Structural Dynamics | 4 |
| ME44210 | Drive & Energy Systems | 3 |
| OE44120 | Offshore Wind Farms Design | 4 |
| OE44135 | Offshore Wind Support Structures | 4 |
|  | **Total** |  |

**ODE Electives 1st YEAR**

|  |  |  |
| --- | --- | --- |
| Course code | Course name | EC |
| OE44030 | Offshore Geotechnical Engineering | 4 |
| OE44091 | Structural Dynamics Practical | 2 |
| OE44105 | Marine Pipelines | 4 |
| OE44110 | Subsea Engineering | 4 |
| OE44115 | Arctic Engineering | 4 |
| OE44120 | Offshore Wind Farms Design | 4 |
| OE44135 | Offshore Wind Support Structures | 4 |
|  | **Total** |  |

**MSc ODE 2nd YEAR**

**ODE/EWEM Graduation Project (obligatory 45 ECTS)**

|  |  |  |
| --- | --- | --- |
| Course code | Course name | EC |
| OE54010-20 | ODE Literature Research (including colloquium attendance & presentation) | 10 |
| OE54035 | ODE MSc Thesis | 35 |
|  | **Total** | **45** |

\*Tick this box if you used 15 or more EC in electives as a replacement for the Research Assignment / Joint Interdisciplinary Project.

**ME-ODE Electives courses 2nd YEAR (~15 EC)**

|  |  |  |
| --- | --- | --- |
| Course code | Course name | EC |
| AT327-12 | Arctic Offshore Engineering (Spitsbergen) | 7.5 |
| CIE4320 | Vibration-based Monitoring and Identification | 4 |
| OE44090 | Introduction to Computational Dynamics of Offshore Structures | 4 |
| OE44140 | Multidisciplinary Project | 1-15 |
| OE54000 | Industrial Practice | 15 |
| TUD4040 | Joint Interdisciplinary Project | 15 |
| \* | Additional Electives | 15 |
|  | **Total** |  |

\*Tick this box if you use 15 or more EC in electives

**COURSES**: Use this space for any additional (free) electives or free specialisation.

|  |  |  |
| --- | --- | --- |
| Course code | Course name | EC |
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|  | **Total** |  |

|  |  |
| --- | --- |
| **Total of MSc ODE Study Program** (min. 120 ECTS) |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Signature Instructor  Date: | Signature Head of Studies **Dr.ir. S.A. Miedema**  Date: | Signature Student  Date: | On behalf of the Examination Board  Date: |