**Time Table Module 1 EMME programme 2020 – 2021, Week 1**

**Energy Economics and geo politics 16 – 21st March 2019 &**

**Online course Business Economics and Value creation**

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| **Day & Time** | **Main topic** | **Responsible lecturer** |
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| **Monday 16**Morning session09:30 – 12:30 | **Welcome & introduction session*** Highlights of the EMME programme
* Vision mission & learning goals
* The collaborative team BI & IFP
* Library resources (11.00 – 11.45)
 | Jon LereimAtle MidttunArash FarnooshToril SigstadstøIdoia Olazar |
| Afternoon session13:30 – 15:30 | **Introductory highlights of the energy & society** * Review of various trends & resources
 | Atle Midttun |
| 15:45 – 17:30 | **Panel discussion with students** | Atle Midttun & Jon Lereim |
| 17:45 – 18:30 | * **Brief Introduction to Consultancy Project**
 | Jon Lereim |
| **Tuesday 17** |
| Morning session08:30 – 12:30 | **Highlights of the gas industry*** The international gas markets & suppliers
* Natural gas - LNG
 | Jon Lereim & guest lecturer Morten Lindbæck |
| Afternoon session13:30 – 17:30 | **Highlights of the gas industry continued*** The importance of shale gas
* The international gas transport systems
 | Jon Lereim & guest lecturer Morten Lindbæck |
| 18:00 | **Dinner** |  |
| **Wednesday 18** |
| Day 3 Morning session08:30 – 12:30 | **Highlights of the oil industry*** Introductory highlights to field developments
* Technology transfer to renewables
 | Jon Lereim   |
| Day 3 Afternoon session13:30 – 17:30 |  **Highlights of the oil industry 2020*** The international oil markets
* The macro-economics in oil
 | Øystein Noreng guest lecturer |
| **Thursday 19** |
| Morning session08:30 – 09:15 | **Introductory lecture on regulations & markets** | Atle Midttun |
| 09:30 – 10:30  | **Workshop on electricity systems in students’ home countries*** Discussion
 | Atle Midttun |
| 10:45 – 12:30 | **The Nordic and European energy markets: Developments and Challenges*** Discussion with students
 | Guest lecture:Einar Westre Energi Norge |
| Afternoon session13:30 – 14:15 | **Strategies for renewable energy*** Learning curves & dynamic technology evolution
 | Atle Midttun |
|  | **Cofee Break** |  |
| 14:30 – 16:00 | **Panel Discussion****Challenges towards a renewable energy society** | Panel Guest lecturers:Martin FossTina SaltvedtMaria Moræus Hanssen |
| 16:00 – 17:30 | * Outlook on Green Transition
* Discussion with students
 | Atle Midttun & Jon Lereim |
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|  **Online course # 1 GRA 8507 Business Economics and Value Creation** |
| **Friday 20** |
| Morning session08:30 – 12:30 | **Business Economics** * Business model canvas
* Business Case
* Value estimation models & EVA, NPV & IRR
* Optimism Bias
* Quantitative and qualitative conditions
 | Pål Berthling- Hansen |
| Afternoon session13:30 – 17:30 |  **Business Case Scenarios*** Uncertainty assessments
* Criteria for concept selection
* Life cycle value optimisation
 | Pål Berthling - Hansen |
| **Saturday 21** |
| Morning session08:30 – 12:15 | **Lean principles in value optimization*** Lean principles - basic
* Flow efficiency & continual improvement

Canvas models | Pål Berthling - Hansen |
| Afternoon session13:00 – 17:00 | **Business Driven Decision Making*** Decision making models
* Impact of and benefit of digitalisation
 | Pål Berthling-Hansen |