**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 session  09:30 – 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 Lereim  Atle Midttun  Arash Farnoosh  Toril Sigstadstø  Idoia Olazar |
| Afternoon session  13:30 – 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 session  08:30 – 12:30 | **Highlights of the gas industry**   * The international gas markets & suppliers * Natural gas - LNG | Jon Lereim & guest lecturer Morten Lindbæck |
| Afternoon session  13:30 – 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 session  08:30 – 12:30 | **Highlights of the oil industry**   * Introductory highlights to field developments * Technology transfer to renewables | Jon Lereim |
| Day 3  Afternoon session  13:30 – 17:30 | **Highlights of the oil industry 2020**   * The international oil markets * The macro-economics in oil | Øystein Noreng guest lecturer |
| **Thursday 19** | | |
| Morning session  08:30 – 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 session  13:30 – 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 Foss  Tina Saltvedt  Maria 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 session  08:30 – 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 session  13:30 – 17:30 | **Business Case Scenarios**   * Uncertainty assessments * Criteria for concept selection * Life cycle value optimisation | Pål Berthling - Hansen |
| **Saturday 21** | | |
| Morning session  08:30 – 12:15 | **Lean principles in value optimization**   * Lean principles - basic * Flow efficiency & continual improvement   Canvas models | Pål Berthling - Hansen |
| Afternoon session  13:00 – 17:00 | **Business Driven Decision Making**   * Decision making models * Impact of and benefit of digitalisation | Pål Berthling-Hansen |