

## **EXERCISES, E-MODULES, GEOV210 AUTOMN 2018**

<http://buster.geo.uib.no/emodules/>

**All e-modules listed below are part of the syllabus (pensum) in GEOV210.**

### **Exercise 1: Vøring Margin: underplating.**

Discuss various hypotheses concerning the composition and formation of the lower crustal 7+ km/s layer often observed along continental margins.

### **Exercise 2: Vøring Margin: lineaments.**

Describe the different lineaments along the Vøring Margin, and how they relate to rifting processes.

### **Exercise 3: Vøring Margin: Tertiary domes.**

Discuss various hypotheses concerning the formation of the Tertiary domes in the Vøring Basin.

### **Exercise 4: Vøring Margin: COT.**

Discuss the Continent-Ocean-Transition/Boundary on the Vøring Margin and the processes leading to continental break-up in this area.

### **Exercise 5: Vøring Margin: Structural Evolution.**

Discuss the structural evolution of the Vøring Margin.

### **Exercise 6 (two modules): Mantle Plume 1, Mantle Plume 2.**

What is the link between Mantle Plumes, the Icelandic Hotspot and the Vøring Margin?

### **Exercise 7: Atlantic Transect.**

Describe the evolution of the transect and discuss the processes involved.

### **Exercise 8 (two modules): Svalbard Margin, Knipovich Ridge.**

Discuss the evolution of the Barents Sea and the adjacent oceanic crust.

### **Exercise 9 (compulsory, written, 5-6 pages, group of 2-3 students):**

Combine the e-module exercise you have already presented, with another e-module of your choice. Focus on the interaction between the geological processes discussed in the two modules.

Useful background modules: OBS Acquisition, OBS Processing, OBS modeling: P-waves, OBS modeling: S-waves. Moho, so what!