

The training course is designed to work with 30 participants. It would be preferred/recommended that each participant bring its own laptop with for the intended modeling. The names and e-mail addresses are needed prior to the course to send some material and links to the participants:

First Session:0800-10:00 (2hr)

Introduction

Dividing the students into 3 groups, This is to optimize the interaction with the participants

- **Introducing the participants to the Electron Microscope and its detectors**
- **Ensure that the modeling software are loaded on all the laptop's and are functional**
- **Introduction to electron microscopy (EM)**
 - **How does it work**
 - **Electron beam sample interaction**
 - **Different detectors and signal detection**

Tea Break: 1000-1030

Second Session: 10:30-13:00 (2:30 hr)

Simulation

- **Doing Sample – beam interaction simulation**
- **See actual live imaging on the SEM highlighting the different detector signals**

Lunch: 1300-1400

Third Session 1400-1530 h (1:30 hr)

Image interpretation

- **Sample preparation**
 - **Biological samples**
 - **Geological samples**
 - **Polymers**

- Metal alloys
- **Image interpretation**
 - **What must I look out for**
 - **Artifacts**
 - **What can I learn from the data bar in my image**

Fourth Session: 1600-1700 h (1:00 hr)

Group discussion

- We plan to discuss your samples and problems you experience as well as what was learned