



**UCEM**  
Umeå Core Facility  
Electron Microscopy

## **TEM SAMPLE PREPARATION COURSE (PART II)**

**MAY 6TH-10TH 2019**

**COURSE PRELIMINARY PROGRAM**

**1,5 ECTS**

**PLEASE BRING ONE SAMPLE TO UCEM 29<sup>TH</sup> APRIL 2019**

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### ***Day ONE - Monday 6<sup>th</sup>***

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- 08:30-9:00 Starting fixation protocol with participants samples (SH + AZ)  
09:00-10:00 Introduction to practical protocols and lab-safety (SH)  
10:00-12:00 Sample preparation, sectioning, tools and grids (SH + AZ)  
Lunch  
13:00-16:30 Sample preparation, sectioning, tools and grids (SH + AZ + GV)
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### ***Day TWO - Tuesday 7<sup>st</sup>***

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- 08:30-09:00 Sample preparation, sectioning, tools and grids (SH + AZ + GV)  
09:00-10:00 Chemical fixation, plastic embedding and sectioning and staining (BH)  
10:00-12:00 Sample preparation, sectioning, tools and grids (SH + AZ + GV)  
Lunch  
13:00-15:00 Demonstration high pressure freezing + automatic freeze substitution (SH + GV)  
15:00-16:30 Sample preparation, sectioning, tools and grids (SH + AZ + GV)

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### *Day THREE – Wednesday 8<sup>th</sup>*

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08:30-12:00 Sample preparation, sectioning, tools and grids (SH + AZ + GV)

Lunch

13:00-13:30 Demonstration of microwave processing (SH)

13:30-16:30 Sample preparation, sectioning, tools and grids (SH + AZ + GV)

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### *Day FOUR - Thursday 9<sup>th</sup>*

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08:30-10:30 Breakfast discussion: introduction to cellular localization in EM, immuno-gold labeling, CLEM, APEX (SH + AZ + GV + BH)

10:30-12:00 Sectioning – continuing, post staining and TEM (SH + AZ + GV)

Lunch

13:00-15:00 Introduction to FIB-SEM “slice and view” (SH)

15:00-16:30 Sectioning – continuing, post staining and TEM (SH + AZ + GV)

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### *Day FIVE - Friday 10<sup>th</sup>*

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08:30-9:30 Breakfast discussion: Electron tomography-3D visualization (CH)

9:30-12:00 Sectioning – continuing, post staining and TEM (SH + AZ + GV + LS)

Lunch

13:00-14:30 Sectioning – continuing, post staining and TEM (SH + AZ + GV + LS)

14:30-15:00 Course evaluation (SH +AZ + GV)

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#### **TEACHERS**

Sara Henriksson (SH) | *EM research engineer*

Agnieszka Ziolkowska (AZ) | *EM research engineer*

Gayathri Vegesna (GV) | *EM research engineer*

Camilla Holmlund (CH) | *EM research engineer*

Linda Sandblad (LS) | *EM facility director*

Barbara Hübner (BH) | *Singapore, NTU*