Softskill-Seminar  Image Processing for Scientists
Trainer  Dr. Tina Koch

Course Aims
• Confidence using image data
• Generation and preparation of images for scientific publications and posters

Course Motivation
To equip Ph.D. students with the essential toolset to help them use image processing software confidently in their daily scientific work. According to the participant’s needs we can set the focus on Adobe Photoshop/Illustrator, Gimp, Inkscape, Fiji (ImageJ) or Blender.

Course Agenda
Introduction of the Course Trainer and the Participants

Image Processing Basics (Lecture & Discussion)
• What is a computer image? Formats: Bitmaps, vector graphics, compression, resolution
• Which software can I use to prepare my scientific images?
• Correct scientific practices in image processing. What is and is not allowed?

Do It Yourself Exercises (Practical Part)
• Illustration workflow: Students rebuild a graphical workflow step by step.
• Application of filters & image improvement operations to scientific images (e.g. microscopy pictures). Students learn to apply filters and stack operations to increase the quality of images before publication.

Preparing my Images for Print and Publication (Lecture & Discussion)
• Understanding the publication-dependent submission requirements for images: Different journals, different rules.
• Choosing the right format, size and resolution.
• Image conversion: Good practice and common pitfalls.

Final Discussion and Wrap-Up

We tailor all our softskill seminars towards your individual needs. The course modules are flexible and can be modified and combined with our other courses.