How many courses do I have to take?

4 courses out of 2 areas within 3 years are compulsory. Of these courses, at least 2 have to cover “Scientific courses”, one has to cover “Transferable skills / Management courses”, and one is free of choice.

AREAS

- SC – Scientific courses
- TM – Transferable skills / Management courses

Which courses shall I take?

This depends on your educational background and your research interests and should be discussed with your Thesis committee.

How to register?

Please enrol by using the link at the end of each course description on the website:

- http://www.chembiol.uni-konstanz.de/scientific-courses.html
- http://www.chembiol.uni-konstanz.de/transferable-skills.html
## Overview

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11-12 February + 12-13 March 2014

Project Management for Industry (GPM Certificate)

Content

In companies with a developed project culture, knowledge and experience of project management methods is essential. This project management training makes you familiar with professional project management in research. It demonstrates how to run a scientific project in industry or a research institution, and shows the initial steps how to become project manager and project leader. After all, the training offers the possibility to get a certificate executed by the GPM (member of the International Project Management Association IPMA). The examination will follow approx. one week after the second part of the course (date: t.b.a.).

<table>
<thead>
<tr>
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<th>Karen Dittmann</th>
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13-14 February 2014

Scientific Presenting

Content

If you would like to learn how to give successful presentations in English, this workshop is for you! A central theme is revising basic techniques of presenting, and strengthening the awareness of how we “come across” to our audience. Practical exercises and peer reviews will help to improve academic language. This lively and dynamic workshop is highly appreciated by PhD students in the first phase of their studies.

Lecturer Millie Baker
Room F 424
Time 9.00-17.00 h
Course Area Transferable skills
Participants max. 10
Registration http://www.chembiol.uni-konstanz.de/transferable-skills.html
24 February 2014

Gene Expression & Protein Purification Strategies

Content

This one day course will treat the following topics within two half-day sessions of each lecturer:

- Introduction into recombinant gene expression
- Diverse expression systems (Bacteria, yeast, Baculo virus)
- Cloning strategies
- Tagging and affinity purification of recombinant proteins

Lecturer: Elke Deuerling, Thomas Mayer
Room: M 701
Time: 9.00-17.00 h
Course Area: Scientific course
Participants max.: 24
Registration: http://www.chembiol.uni-konstanz.de/scientific-courses.html
13-14 March 2014

Advanced Bioimaging

Content

This two day course will introduce the following topics by lectures, demonstrations and practical microscope sessions employing diverse biological samples:

- Non-linear microscopy
- fluorescence correlation spectroscopy (FCS)
- fluorescence resonance energy transfer (FRET)
- fluorescence lifetime imaging (FLIM)
- fluorescence recovery after photobleaching (FRAP)

Lecturer Andreas Zumbusch, Christof Hauck
Room ML 630, M 628
Time 9.00-18.00 h
Course Area Scientific course
Participants max. 9
Registration http://www.chembiol.uni-konstanz.de/scientific-courses.html
18-19 March 2014

Leadership for Future Leaders

Content

This two day module provides a general insight into actual leadership tools. The theoretical aspects of leadership are combined with case studies. The course helps avoiding typical mistakes in leadership situations and gives you an overview on situations, instruments and personal factors to successfully lead co-workers. Your questions are highly appreciated and will enhance the course. The course is recommended in the second phase of your studies.

Lecturer: Andreas Ploch
Room: Y 310
Time: 9.00-17.00 h
Course Area: Management course
Participants max.: 10
Registration: http://www.chembiol.uni-konstanz.de/transferable-skills.html
20-21 March 2014

Career Orientation and Application Training

Content

This workshop helps to find the personal motivation for the future career and shows different options, so called career paths. The first step is to find “the right company”, the second step is to get “the right job”. Important questions are: What exactly is my motivation? Where are my strengths and weaknesses? What “plan” do I have for my career? Following this, the one day job application training helps from the very first steps of an application process: How do I write a “good” application, a “good” CV? What is important in an interview session? What to do in an assessment-center? Online application tools and questionnaires are also subject of this course.

Lecturer Andreas Ploch
Room Y 310
Time 9.00-17.00 h
Course Area Transferable skills
Participants max. 10
Registration http://www.chembiol.uni-konstanz.de/transferable-skills.html
24 March 2014

Understanding Peer-Reviewed Publishing

Content

If you have plans to write a paper for an international peer-reviewed journal but don’t have a great deal of experience in publishing, this one day course is ideal for you. You will learn how the peer-review system works and understand the most important aspects of preparing and writing a paper. After the course, you will be a more efficient writer and have greatly increased the chances of your manuscript being published. No publishing experience is required.

Lecturer: Gunther Tress
Room: Y 310
Time: 9.00-18.00 h
Course Area: Management course
Participants max.: 12
Registration: http://www.chembiol.uni-konstanz.de/transferable-skills.html
Intercultural Communication

Content

This two day practice- and applications-oriented workshop is designed to enable doctoral students to develop key skills in accurately identifying and dealing with typical scenarios in cross-cultural academic work interaction. Drawing on authentic complex case studies, it provides a balance of conceptual frame-working and structure to create step-by-step diagnostic tools to define culture-appropriate strategies. The workshop is highly recommended for both German and international students.

Lecturer: Alexia Petersen
Room: Y 310
Time: 9.00-18.00 h
Course Area: Transferable skills
Participants max.: 12
Registration: http://www.chembiol.uni-konstanz.de/transferable-skills.html
Content

This course will provide theoretical and practical information on flow cytometry and fluorescence activated cell sorting and can be attended by students with no previous experience in flow cytometry. In the mornings, the participants will learn about the principles of flow cytometry, the property of fluorophores, and possible applications. The Cellquest™ and FACSDiva™ software as well as FACScan™, FACScalibur™, LSRII and FACSARia™ instruments will be introduced. In the afternoons, every participant will perform experiments in the laboratory.

**Lecturer** Stefanie Bürger, Florian Rohrbach (BD Biosciences)
**Room** M 1007
**Time** 9.00-18.00 h
**Course Area** Scientific course
**Participants max.** 12
**Registration** http://www.chembiol.uni-konstanz.de/scientific-courses.html
21-23 July 2014

Bioimaging

Content

This three day course will cover the following themes by lectures, demonstrations and hands-on:

- Fluorescence Imaging and Deconvolution
- Laser Scan Confocal Microscopy (Point Scanning and Spinning Disk)
- Total-Internal-Reflection (TIRF) Microscopy

Lecturer Elisa May
Room L 914/L 933a
Time 9.00-18.00 h
Course Area Scientific course
Participants max. 9
Registration http://www.chembiol.uni-konstanz.de/scientific-courses.html
Data Analysis

Content

This workshop will focus on data manipulation and biostatistics modelling using relevant examples from the life sciences. With over 5000 packages, R, an open-source cross-platform software tool, has quickly become a standard tool for data analysis in many scientific disciplines. Using plenty of hands-on exercises, you will learn about different data structures and functions in R, how to manage and ask specific questions of your data, and use the results of statistical tests. You should be comfortable with computing and be familiar with basic biostatistics. Participants are strongly encouraged to bring in their own data sets and computers for practical work.

Lecturer            Rick Scavetta
Room                Y 311
Time                9.00-17.00 h
Course Area         Transferable skills
Participants max.   12
Registration        http://www.chembiol.uni-konstanz.de/transferable-skills.html
6-8 October 2014

Proteomics

Content

This three day course comprises morning lectures and hands-on experiences in the afternoon, hereby treating the following topics:

- General intro (proteomics workflow, mass spectrometers, ESI-/MALDI-ionisation, mass analyzers)
- ESI-MS and MALDI-MS practice
- Sample preparation - theory and practice
- LC-MS and fragmentation techniques - theory and practice
- Special applications (SILAC, ICAT, protein quantification)

Lecturer: Andreas Marquardt
Room: ML 630
Time: 9.00-17.00 h
Course Area: Scientific course
Participants max.: 10
Registration: http://www.chembiol.uni-konstanz.de/scientific-courses.html
16-17 October 2014

**Determination of Macromolecular Structures**

Content

This two day course will provide theoretical and practical information on structure determination of biomacromolecules by X-ray crystallography. The sessions will cover the following topics:

- Diffraction theory
- Structure solution methods
- How to judge structural information

Lecturer Kay Diederichs, Wolfram Welte
Room L 601, L 1201
Time 9.00-18.00 h
Course Area Scientific course
Participants max. 15
Registration [http://www.chembiol.uni-konstanz.de/scientific-courses.html](http://www.chembiol.uni-konstanz.de/scientific-courses.html)
17-18 November 2014

Bioconjugation Chemistry

Content

This two day course will give an overview on current bioconjugation techniques by lectures as well as talks from invited guests. The following topics will be covered:

- Synthesis and site-specific modification of biomolecules (nucleic acids, peptides/proteins, carbohydrates)
- Immobilization strategies
- Bioorthogonal ligation reactions
- Metabolic labelling

Lecturer Andreas Marx, Valentin Wittmann
Room ML 518
Time 9.00-18.00 h
Course Area Scientific course
Participants max. 10
Registration http://www.chembiol.uni-konstanz.de/scientific-courses.html
MATLAB

Content

MATLAB is a high-level language and interactive environment for numerical computation, visualization, and programming. Using MATLAB, you can analyze data, develop algorithms, and create models and applications. We strive to offer online courses (individual starting dates) as well as inhouse courses treating the following topics:

- Matlab introduction
- Matlab as a tool of data analysis and visualization
- Application development
- Programming
- Image Processing

Please register for your field of interest via doodle and our office will contact you.

Course Area  Scientific course
Software Download  http://www.rz.uni-konstanz.de
Registration  http://www.chembiol.uni-konstanz.de/scientific-courses.html
Notes
Contact

Konstanz Research School Chemical Biology (KoRS-CB)

Dr. Heike Brandstädter
phone: 07531-88-2237

Katharina Magerkurth  |  Project Assistant
phone: 07531-88-2142

e-mail: chembiol@uni-konstanz.de
web: www.chembiol.uni-konstanz.de