# Course Overview Amsterdam UMC Doctoral School

Courses organized by Amsterdam UMC Doctoral School:

DS Advanced Topics in Biostatistics DS Amsterdam UMC World of Science DS Clinical Epidemiology: Evaluation of Medical Tests DS Clinical Epidemiology: Observational Epidemiology DS Clinical Epidemiology: Randomized Clinical Trials DS Clinical Epidemiology: Systematic Reviews DS Computing in R DS Correct Citation (e-learning) DS Data Analysis in MATLAB DS Didactical Skills (in Dutch) DS eBROK DS EndNote (e-learning) DS Entrepreneurship in Health and Life Sciences DS MRI Basic understanding for (Bio)Medical Research DS Peer to Peer Group coaching DS PhD BYBJ Be Yourself (Be Your Best Journey) DS PhD BYBJ Say what you mean (Be Your Best Journey) **DS Practical Biostatistics** DS Presenting with Confidence (in English) DS Project Management (Team Based Learning) DS PubMed (e-learning) DS Qualitative Health Research DS Research Data Management (e-learning) DS Research Data Management: Processing Clinical Data in SPSS DS Research Data Management: Writing a Data Management Plan DS Research Integrity PhD course DS Scientific Writing in English DS Searching for a Systematic Review Ds Talents in PhD DS Zoeken voor een CAT (e-learning) X DS Advanced qPCR (not organized anymore) X DS Careermanagement for PhD (not organized anymore) X DS Project Management (not organized anymore) Courses organized by others: X DS Advanced Immunology

- X DS AGEM PhD candidate course
- X DS Basic & Advanced Epidemiology and Biostatistics courses
- X DS Bioinformatics and System Biology courses
- X DS Cellular Imaging: Advanced Course in Microscopy
- X DS Cellular Imaging: Basic Course in Microscopy
- X DS Cellular Imaging: From Pixel to Publication
- X DS Combining Teaching and Learning
- X DS Laboratory Animal Science
- X DS Language courses (UvA Talen and INTT)
- X DS Participatory Action Research (PAR)
- X DS Sex and Gender in Epidemiological Research
- X DS UX for Healthcare

## DS Advanced Topics in Biostatistics

By the end of this course, the participant has gained a deeper understanding of the assumptions behind several statistical models. The participant will be better able to choose the model that best fits the data at hand and interpret the results.

#### Format

This course runs once a year and consists of seven morning sessions on Tuesday and Fridays, spread over a period of four weeks.

#### **Target audience**

The course is intended for those who have completed the Practical Biostatistics course, or who have otherwise gained sufficient knowledge of linear, logistic, and Cox regression models.

Although problems are approached from a practical perspective, it has a more theoretical content than the Practical Biostatistics course. Therefore, some experience with data analysis is needed in order to be able to relate the statistical principles to one's own practice. Those who have followed the Practical Biostatistics course but have not analyzed data themselves, are advised to postpone participation.

#### **Study Load**

40 hours, which is comparable to 1.5 ECTS points.

#### Content

Main Statistical Concepts, Statistical Graphs, Regression Models, Modeling and Understanding Effects from Regression Models,

Why Regression?, Missing Values, Longitudinal Data Analysis, Joint Models.

## DS Amsterdam UMC World of Science

This Amsterdam UMC World of Science course is specifically designed to equip starting PhD candidates with the necessary knowledge to be prepared for their role as junior researchers at the Amsterdam UMC. This course also offers an excellent platform for new PhD candidates to meet other junior researchers, as well as leading Amsterdam UMC scientists, in order to build networks and foster solidarity, while becoming part of the "Amsterdam UMC family".

#### Format

The sessions are a combination of lectures on various aspects of doing research, from fundamental research to the development of novel interventions for patient care or disease prevention, group discussions, workshops, and individual assignments.

#### **Target Audience**

Starting Amsterdam UMC PhD candidates from all eight research institutes, regardless of their academic discipline (laboratory, translational, clinical or public health) are strongly encouraged to take this course in the first year of their PhD project.

#### Study load

12,5 hours, which is comparable to 0.5 ECTS.

#### Content

Topics include the organization and funding of scientific research, the ethical and legal framework of medical research, research integrity, and science communication, valorization and impact, as well as the challenges and opportunities that many PhD candidates face. It also features an introduction to the scientific strategy of the Amsterdam UMC, presented by one of the Deans of the Faculty of Medicine.

Participants will present and discuss their projects with each other to gain insight into the breath of Amsterdam UMC research and the different ways in which PhD trajectories are organized.

General subjects:

- Project proposal / project management / presentation of research results
- Ethical and legal aspects of research
- Communicating with your colleagues and supervisors
- Science communication, valorization and impact
- Pitch your PhD project

# DS Clinical Epidemiology: Evaluation of Medical Tests

By the end of this course, researchers are able to design studies to evaluate medical tests. These may be diagnostics, but also screening tests or predictive models. Participants will be able to choose the appropriate outcome measures, to design the appropriate study for these outcome measures and to indicate how to prevent biased results.

#### Format

Four (online) sessions and an (optional) exam session\*

#### **Target audience**

PhD candidates who will be involved in a diagnostic study. Participants are assumed to be familiar with basic diagnostic accuracy and statistical concepts (sensitivity, specificity, predictive values).

#### **Study Load**

26 hours, which is comparable to 0.9 ECTS points.

#### Content

Phases in test evaluation; inter- and intra-observer agreement; diagnostic accuracy studies; sensitivity and specificity, likelihood ratios, predictive values; ROC plots; patient selection; sources of bias for the different designs; designing a predictive modelling study; prospective versus retrospective designs; link between testing and patient outcome; power and sample size calculations; hypothesis testing.

\*For PhD candidates who want to register as Epidemiologist B, a formal exam will be organized.

# DS Clinical Epidemiology: Observational Epidemiology

The main goal of this course is to familiarize participants with the evaluation of effects in observational study designs, based on contemporary epidemiological concepts.

By the end of this course, participants will be able to provide the counterfactual definition of causality, to explain the nature of confounding, and to recognize and discuss potential solutions for it.

#### Format

Four (online) sessions of 3/4 hours. 1-2 hours per day reading and preparation and an (optional) exam session\*

#### **Target audience**

PhD candidates are assumed to be familiar with basic epidemiology (up to the level in the medical curriculum), to know about epidemiological studies and effect measures, and be able to handle basic statistical concepts and techniques (estimates, confidence interval, hypothesis test, regression).

#### **Study Load**

16 hours, which is comparable to 0.6 ECTS points.

#### Content

Counterfactuals, directed acyclic graphs, stratification, propensity scores, inverse probability weighting, Mendelian randomization, instrumental variable analysis.

\*For PhD candidates who want to register as Epidemiologist B, a formal exam will be organized.

# DS Clinical Epidemiology: Randomized Clinical Trials

After following this course, the participant should be able to write the protocol for a randomized clinical trial.

#### Format

Four (online) sessions of 3/4 hours. 1-2 hours per day reading and preparation and an (optional) exam session\*

#### **Target audience**

PhD candidates who will be involved in a randomized controlled trials.

#### **Study Load**

16 hours, which is comparable to 0.6 ECTS points.

#### Content

Phase I-IV research; types of trial design (parallel groups, cross-over, factorial, clusterrandomized & sequential designs); defining hypothesis, power and sample size and study objectives (superiority, equivalence, non-inferiority); defining the population of patients; blinding, randomization, placebo; CONSORT; data handling; randomization schemes; practical issues; Data Safety Monitoring and stopping rules; data-analysis and presentation; missing values; costs.

\*For PhD candidates who want to register as Epidemiologist B, a formal exam will be organized.

# DS Clinical Epidemiology: Systematic Reviews

This course provides an introduction to developing a systematic review.

By the end of this course the participant should be able to know the difference between a narrative and systematic review, list the steps of performing a systematic review, define a review question and eligibility criteria, to understand the concepts of a search strategy, to assess risk of bias with appropriate instruments, know the basic steps of meta-analysis, interpret meta-analysis results and draw meaningful conclusions.

#### Format

The course consists of plenary presentations, interactive discussions and small-group exercises. The exercises include working with the (free) software programs Review Manager and GRADEpro. Please bring your laptop for these exercises. The course material will be made available on Open Canvas.

#### **Target audience**

The course is aimed at PhD candidates with no or very little systematic review experience and who are starting to work on a systematic review.

PhD candidates performing or planning a systematic review. Basic knowledge of clinical epidemiology / (study types, effect measures, statistical inference) is desirable.

Do you already have more experience with systematic reviews? Please check the course "Searching for a systematic review".

#### **Study Load**

20 hours, which is comparable to 0.7 ECTS points.

#### Content

Systematic reviews can be developed to answer a variety of review questions, such as diagnostic, therapeutic or prognostic questions. The course covers the general approach of developing a systematic review: defining the review question and eligibility criteria for including studies, searching for studies, selection and data-extraction, assessment of risk of bias, (meta-)analysis and drawing conclusions. We will address methodological aspects as well as the process and practical issues.

For didactic reasons, the main focus is on how to perform a systematic review for therapeutic questions (health care interventions). Other types of systematic reviews will be addressed too, for example when we ask participants to discuss (in small group work) the review they are planning or performing, but in less detail.

## DS Computing in R

R is a simple programming language for statistical computing. Due to its simplicity, flexibility and the large variety of statistical functions available in R, it is a popular alternative for programs like SPSS. However, for a beginner mastering R can be rather difficult. This course helps the student to become familiar with the basics of R. After the course the student will be able to write short programs in R for basic data analyses and for plotting high-quality figures.

#### Format

The course consists of a mix of lectures and computer exercises. If you already have some experience with R, you are encouraged to take your own clinical or omics data with you and bring what has been learnt into practice on this dataset during the 2nd afternoon session.

#### **Target audience**

PhD candidates who want to learn more about the application "R". Note that the focus of this course is not on statistics.

#### **Study Load**

20 hours, which is comparable to 0.7 ECTS points.

#### Content

- Installation of R and its packages
- Data import and export
- R syntax: data structures and functions
- Graphics in R
- Documentation and help
- Data manipulation
- Simple statistical functions: model fitting
- Programming in R

## DS Correct Citation (e-learning)

To know more about searching Literature please read this document: <u>Guide for Searching Literature</u> (please scroll to end of page)

This course is an e-learning which gives a good working knowledge of different citation styles, when to cite correctly, when to quote or paraphrase, what self-plagiarism is and the most common mistakes made.

#### Format

This course is an individually taken e-learning course, including a self-test.

#### **Target audience** Amsterdam UMC PhD candidates, students and others.

### Study load

0.1 ECTS

#### Content

The course consists of three modules; - citation styles, - citation, quote or paraphrase, - test yourself.

Direct link to course: Citation Analysis

# DS Data Analysis in MATLAB

In this course you will learn the basic setup of the program and its scripting language. After the course you are able to write basic scripts to process your data and make plots and images.

Do you need to analyse and plot your measured data? Are you tired of manually processing many files? MATLAB is a general computer program designed for flexible calculations on data and is used by many scientists. In this course you will learn the basic setup of the program and its scripting language. After the course you are able to write basic scripts to process your data and make plots and images. Also you learn to use more advanced scripts and toolboxes. If you bring your own data to the course, we can help you getting started with loading and displaying your measurements.

#### Format

The course is given in one week on five afternoons (13.00 - 17.00).

#### **Target audience**

PhD candidates who wants to learn more about the application Matlab. No prior programming skills are required, although it is an advantage. Partipants can prepare themselves prior to the course using provided online training material.

#### **Study Load**

20 hours, which is comparable to 0.7 ECTS points.

#### Content

Topics covered are:

- MATLAB Gui & Help, Workspace, editor, documentation
- Basics: calculations, arrays, matrices, statements, strings, structures, cells
- Visualization: graphs, plots, images
- Programming: scripts, cell-mode, debugging, functions, SPM-batching
- Data: save/load data, data management (file listing, copy/move, spm\_select)
- Other advanced exercises

## DS Didactical Skills (in Dutch)

This course will give you the basic skills needed to handle teaching activities well.

As a PhD candidate, you may be asked to participate in teaching activities. This may include giving a lecture of workshop, or supervising individual students, for example when supervising a student's bachelor thesis or scientific research project. This course will give you the basic skills needed to handle these tasks well.

#### Format

The course consists of two interactive group sessions (4 hours per session). The (mandatory) preparation will take about 3 hours.

This course will be held in Dutch only. For non-Dutch speakers please contact the Doctoral School.

#### **Target audience**

PhD candidates who are tutors of a small group of students or supervisors of students during internship or research thesis.

#### **Study Load**

10 hours, which is comparable to 0.4 ECTS points.

#### Content

The main two topics of this course are: teaching classes (especially small groups) and supervision of individual students. At the end of this course, you will be able to:

- Explain the importance of active learning
- Design a lesson plan based on the concept of Constructive Alignment

- Plan the process of supervising (individual) students and choose applicable styles of supervision

- Provide students with constructive feedback

- Reflect on difficult situations in teaching and supervising and identify appropriate courses of action

## DS eBROK

The course gives you the knowledge of the laws and regulations covering clinical research and their practical consequences.

It leads to a specific final quality level, which is assessed using a national exam. Included in the course is coverage of ICH-GCP, the harmonized international guidelines for good clinical practice set by the International Conference on Harmonization.

#### DO YOU WANT TO FOLLOW THE eBROK course, please enroll by clicking on "IK HEB INTERESSE IN DEZE TRAINING" on this page. You will be informed how to start the course accordingly.

#### Future-Proof BROK® course

The new course will no longer conclude with a formal external exam. Instead, your knowledge will be assessed online at various points during the course. The course consists of a basic part, followed by an in-course assessment. Upon successful completion of this assessment, a choice of in-depth module (e.g., medicinal products or medical devices) must be taken. This module is also concluded with an assessment. The centre specific meeting (CSB) must also be completed according to UMC procedures. Upon completion, you will receive, as before, your BROK® certificate, which will indicate which in-depth module you have completed. This will also be recorded in the BROK® register.

After obtaining the BROK® certificate, your knowledge will be maintained through a socalled PowerApp. This web app offers small pieces of content. The various formats provide a varied, dynamic, and interesting learning experience. By regularly reviewing these small pieces of content, your BROK®certificate will always remain up to date. Even with a busy schedule, you can still learn with the PowerApp thanks to its short interactions.

#### **Target Audience**

This course is obligatory for all AMC PhD candidates and AMC researchers carrying out work covered under the Medical Research Involving Human Subjects Act (Wet Medischwetenschappelijk Onderzoek met mensen, WMO).

#### Study load

The NFU eBROK® course is valid for 1.5 ECTS.

#### **More information**

For information about NFU eBROK® courses for all other researchers (non AMC PhD candidates), research nurses and research coordinators, please contact <u>brok-coordinator@amsterdamumc.nl</u>

## DS EndNote (e-learning)

To know more about searching Literature please read this document: <u>Guide for Searching Literature</u> (please scroll to end of page)

#### Endnote

In this course participants will learn the basics of EndNote

#### Format

This course is an individually taken e-learning course.

#### **Target audience**

PhD candidates who would like to know more about Endnote.

#### Study load

2.5 hours, which is comparable to 0.1 ECTS.

#### Content

Direct link to course: EndNote and/or EndNote

# DS Entrepreneurship in Health and Life Sciences

The course provides an overview of the essential elements of entrepreneurship and innovation as well as a practical guidance for starting an innovative company in the field of Health and Life Sciences.

Using an interactive approach, the course offers tools and the opportunity to develop a business case and aims to raise your interest in becoming a (life science) entrepreneur yourself.

What do participants say about this course: Link

#### Format

The course consists of two sessions (09.00 - 17.00 hrs), with interval of several weeks between the sessions.

#### **Target audience**

Amsterdam UMC PhD Candidates

#### **Study Load**

42 hours, which is comparable to 1.5 ECTS points.

#### Content

The course is a combination of lectures and workshops covering the essential components of entrepreneurship. Participants will be working in assigned teams for the duration of the course, where each team will work on a business idea. This idea is preferably (but not necessarily) based on an opportunity/innovation from your own research (product, service, process etc).

Throughout the course, you will learn about what it takes to be an entrepreneur within the Health and Life Science sectors, and how you can create economic and social values with your own startup.

At the end of the program, each team will get an opportunity to pitch their case to a jury panel that will judge the proposition and award a prize for the best pitch.

## DS MRI Basic understanding for (Bio)Medical Research

The aim of this course is to help biomedical and clinical researchers improve basic knowledge of Magnetic Resonance Imaging (MRI) principles and terminology.

#### Format

The course runs once a year (September/October), but additional editions may be scheduled if interest is high. The course is taken on four half-day sessions in consecutive weeks. It consists of plenary lectures, theoretical assignments and a group project aimed at practicing how to read MRI related literature.

#### **Target audience**

PhD candidates who are working with MRI.

#### **Study Load**

28 hours (including preparation and assignments) = 1.0 ECTS

#### Content

Magnetic Resonance Imaging is an emerging research field allowing non-invasive characterization of soft tissues. A variety of clinically relevant parameters on tissue pathology can be assessed, not only based on anatomical, but also structural (composition) or functional data (e.g. cardiac motion, brain perfusion).

While some researchers are trying to improve existing MRI methods to make them more sensitive or faster, most researchers use the MRI machine as a tool to answer specific biological questions. However, the concepts, as well as pro's and con's of the MRI methods being used are difficult to understand without a basic knowledge of these techniques.

PhD students who will most benefit from this course are those who are or will be working with specific MRI techniques and want to gain a more intuitive understanding of the basic principles behind different MRI methods and applications. Also, students will learn about the different factors that affect MRI signals and image quality, allowing a more skeptical view towards results from their research and that of others.

It must be stressed that the focus of the course is NOT on the radiological and/or diagnostic aspect of MRI. Although the course has a more technical focus, we will use intuitive graphical (instead of mathematical) explanations of different aspects of the MRI technique, providing the participants an improved and intuitive understanding of different MRI methods.

### DS Peer to Peer Group coaching

Peer to peer group coaching (in Dutch, *intervisie*) is experience driven. The content of the meetings is determined by the participating PhD candidates themselves and therefore has relevance for daily practice and needs of PhD candidates.

#### Format

Peer to Peer Group Coaching takes place online through Teams or on site (location AMC or VUmc). The participants can indicate their preference during registration.

The Peer to Peer Group Coaching sessions are guided by one of the PhD candidate advisors from the Amsterdam UMC Doctoral School. There will be a total of five meetings, scheduled together with the group (one session every two months approximately).

If you are unable to attend, you notify the other group members and the PhD Candidate Advisor by e-mail.

#### **Target audience**

PhD candidates who would like to get support from peers, reflect, discuss issues without hierarchical differences and get insight and find possible solutions to everyday problems

#### **Study Load**

In total 14 hours: 10 hours (5 x 2 hours) attendance plus in total about 4 hours preparing for meetings; which is comparable to 0,5 ECTS.

#### Content

During the meetings (duration 2 hours) a maximum of two issues can be addressed. Examples of issues that can be addressed are: problems with communication with supervisors, planning of your project, competition with colleagues, time management, difficulties with writing or presenting etc.

# DS PhD BYBJ Be Yourself (Be Your Best Journey)

#### A journey to self-awareness, resilience & compassion

Doing a PhD can be challenging as it often requires hard and independent work with rare moments of gratification. We developed the "Be Yourself" travel kit to help you build awareness, resilience, and compassion to face the challenges of self-doubt and self-neglect during your PhD journey. This travel kit contains (scientific) theories and practical tools to recognize unhelpful patterns, practice (self)coaching and mindfulness, and to stay true to yourself.

#### Format

The course runs 2 times a year (face2face) and consists of 3 half-day sessions, 2 intervision group meetings, and home practices. Attendance at all sessions is compulsory. During the course you will keep a self-reflection journal based on the home practices and intervision groups.

#### **Target Audience**

Amsterdam UMC PhD candidates who would like to cultivate awareness, resilience, and compassion during their PhD (and life).

#### Study load

16 hours (3 half day sessions = 10.5 hours); 2 intervision group meetings = 1.5 hours; home practices = 4 hours), which is comparable to 0.6 ECTS.

#### Topics

- The Ego – recognizing unhelpful patterns; - Imposter Syndrome – taking off the mask; - (Self) coaching – a tool to become aware of underlying convictions and fears; - Resilience – adapting to change; - Mindfulness – (scientific) theory and practices to experience reality; - Emotions and (self-)compassion – how to feel and care; - Connection – how to improve relationships; - Yoga – practice to feel good; - Free choice - 'I have to' versus 'what really matters'; - Work-life balance - meaning, joy, and satisfaction; - Happiness - myths and truth; - True self - being free

# DS PhD BYBJ: Say what you mean (Be Your Best Journey)

The 'Say what you mean' travel kit contains tools to convey your ideas with conviction, to set your boundaries, and to communicate non-violently when dealing with conflict.

#### A journey to expressive power & setting boundaries

Doing a PhD implies constantly communicating to others. Whether this is to agree on plans, establish collaborations or presenting your research and progress, you may not always see eye-to-eye with them. In such cases effective communication is key. The 'Say what you mean' travel kit contains tools to convey your ideas with conviction, to set your boundaries, and to communicate non-violently when dealing with conflict.

#### Format

The course runs 2 times a year (face2face) and consists of 3 half-day sessions, and home assignments. Attendance at all 3 sessions is compulsory.

#### **Target Audience**

Amsterdam UMC PhD candidates who would like to be more aware of their own communication patterns, biases, and pitfalls, while learning strategies and receiving tools to adapt.

#### Study load

15 hours (including homework and sessions), which is comparable to 0.5 ECTS.

#### Topics

Behavior & communication style; Intercultural communication; Academic-industrial communication; Conflicts – Types, sources, levels, management; Active listening; Interpersonal interactions; How to give & receive feedback; Assertiveness: How to say 'no' and set your boundaries; Pitching & debating methods to convince others

## **DS** Practical Biostatistics

This course teaches participants basic principles of biostatistics, including frequently used statistical tests and analyses.

On successful completion, participants will be able to understand the requirements and assumptions for statistical tests and analytical procedures commonly used in clinical research, to perform these procedures in SPSS or R and to interpret the results. Participants will have access to both the SPSS and R parts of the course and the options to do the examination in either SPSS or R.

#### Format

Practical Biostatistics is an e-learning based course. In the e-learning, theory and computer assignments using SPSS or R are integrated. The e-learning is fully self-explanatory and is supported by a glossary, the AMC wiki biostatistics and a discussion forum for interaction with other students and tutors. The course allows participants to acquire statistical knowledge and skills independently when and where they choose.

#### **Target audience**

The course provides a gradual introduction to SPSS, including screencasts on how to perform the statistical analysis introduced in the course in SPSS. The course is suitable for participants with no previous knowledge of SPSS.

However, the R part of the course does not currently offer a comparable gradual introduction to R. If you wish to follow the R part of the course, we recommend that you have some knowledge of the R environment before starting the course. If you have any questions about this, please contact the course coordinators.

#### **Study Load**

40 hours, which is comparable to 1.4 ECTS points.

#### Content

- Introduction: descriptive statistics; - Principles of statistical testing; - Comparing groups: continuous data; - Comparing groups: categorical data; - Correlation and linear regression; -Multiple regression; - Logistic regression; - Survival analysis: Kaplan-Meier curves and logrank tests; - Survival analysis: Cox proportional hazards regression; - Repeated Measurements.

## DS Presenting with confidence (in English)

How do you present your research during a (inter)national scientific congress? In this course participants learn about bringing across a clear, correct and convincing message.

#### Format

The course runs five times a year. Each course edition consists of four sessions. Attendance at all four sessions and active participation is compulsory.

#### **Target audience**

Amsterdam UMC PhD candidates who need to give concise and persuasive presentations. We recommend registering for this workshop if you already have a subject for a presentation.

#### Study load

30 hours, which is comparable to 1 ECTS

#### Content

How can you best prepare for your presentation, pitch or poster presentation; - How do you structure what you are saying in English; - How can you build rapport with your audience? How can you make an impression? How can you influence your audience?; - How can you best present tables and figures?; - How can you improve your fluency and pronunciation?; - How should you handle questions from the audience?; - Vocabulary and rhetoric: how can you use language effectively?; - How can you use your voice effectively (articulation, tempo, pauses, volume and intonation)?; - How can you give and receive feedback graciously and effectively?

# DS Project Management (Team Based Learning)

This course provides a variety of relevant and practical techniques, to be applied on the students' own research project.

Getting a PhD done is a beautiful but complex project. How do you manage that? Like any other project. You think about goals, results, phases, planning, stakeholders, etc. And you handle whatever happens along the way. For over 70 years project managers have been deliberately developing methods and techniques for managing projects better. In this course we get you acquainted with some of the more practical and useful ones.

Furthermore we will focus on what a PhD project entails. That will enable you to effectively manage your PhD like a project, which seriously increases your changes of saving time, spending less energy, and having better results.

#### Format

The course runs eight times a year in two one-day sessions. Participants will work in Team Based Learning groups.

Preparation: studying about 60 pages from provided literature per session.

#### **Target audience**

PhD candidates who would like to learn or have difficulties about planning their project.

#### **Study Load**

20 hours, which is comparable to 0.7 ECTS points.

#### Content

Overall learning objectives:

- Understand what project management is
- Use time management techniques for PhD project execution
- Create and maintain a PhD project plan
- View a PhD project from a broader perspective
- Understand the writing process
- Identify and cooperate with stakeholders

## DS PubMed (e-learning)

PubMed

This e-learning gives a good working knowledge of PubMed. An explanation of the content, the automatic term mapping, Medical Subject Headings (MeSH), history, filters and other options are given.

To know more about searching Literature please read this document:

<u>Guide for Searching Literature</u> (please scroll to end of page)

Format This course is an individually taken e-learning course.

Target audience PhD candidates who are going to work with PubMed and like to know more about the system.

Study load 2.5 hours, which is comparable to 0.1 ECTS.

In Dutch: <u>e-learning course</u> In English: <u>NCBI PubMed</u>

## DS Qualitative Health Research

The aim of this course is to understand the central elements of qualitative research in health and healthcare, both theoretically and practically.

Course members will be introduced to qualitative research goals and questions, learn about different types of qualitative data gathering (interviews, observations, focus groups), about data analysis and writing strategies. Course assignments will always be linked to the participants own current research. At the end of the course, participants will be able to write the methods section of their article and, in the discussion section, to reflect on the strengths and weaknesses of their own qualitative research project.

#### Format

The course consists of five full-day sessions in consecutive weeks. Each session consists of the introduction to theoretical aspects, followed by a practical, interactive workshop on the topic. Between sessions, participants need to spend some time reading the literature and on making the course assignments. Participants practice with their own research material, as well as with other research data.

#### **Target audience**

PhD candidates involved in a qualitative research project, as the participants' own material is used as essential input for the course. The project does not need to be finalized at the time of the course, although the methods section for the course assignment can be written only partly if empirical data still need to be collected and analyzed. No prior knowledge of or experience in qualitative health research is needed.

#### **Study Load**

54 hours, which is comparable to 1.9 ECTS points.

#### Content

- Research design: how to set up qualitative research consistent with the research question; - Data- gathering: Interviewing, Observation, Focus groups: collecting qualitative data relevant to the research question; skills training; - Analysis of qualitative data: how to interpret data in a meaningful way, with an eye on the research question; skills training; - Writing: how to learn to write about qualitative data in a recognizable and valid way; - Quality of qualitative data: how to produce reliable and valid research results in a paper suitable for publication

## DS Research Data Management (e-learning)

In this e-learning we describe how to manage and use biomedical and epidemiological research data. We will teach you how to define, collect, and process your data.

#### Content

We will guide you through the five phases of research data management: We will explain the relevant concepts, working procedures, and software applications for research data management. You will learn how to define, collect, and process your data in order to deliver a reliable data set for data analysis and future reuse.

#### E-learning: Research Data Management

- VUMC: <u>https://vumccostregistration.competence.biz/registration/index/77381c2ac55b-469a-8daf-315b5cd3bb6c</u>
- AMC: <u>https://login.studytube.nl/?back\_link=https%3A%2F%2Famc.studytube.nl%2Flearningtr</u> <u>acks%2F29761</u>

#### **Target Audience**

PhD candidates and junior/senior researchers

**Study load** 3-4 hours

# DS Research Data Management: Processing Clinical Data in SPSS

In this practical workshop we focus on processing clinical data in the SPSS environment.

Foreknowledge: E-learning Research Data Management beforehand.

- VUMC: <u>https://vumccostregistration.competence.biz/registration/index/77381c2ac55b-469a-8daf-315b5cd3bb6c</u>
- AMC: <u>https://login.studytube.nl/?back\_link=https%3A%2F%2Famc.studytube.nl%2Flearningtracks%2F29761</u>

#### **Content:**

As stated in the <u>standard operating procedure RDM001 SOP Research Data Management</u>, all data processing steps should be verifiable and reproducible. For this reason, all data transformations and restructuring should be programmed and recorded in syntaxes or scripts. In addition, researchers should add descriptive comments to the syntaxes or scripts that explain the data transformations and restructuring of the data and the reason why they were carried out.

In this workshop we focus on processing clinical data in the SPSS environment and we will practice with:

- Data validation and management in the statistical environment.
- Preparing the database for statistical analysis.

#### Format

The course consists of 2 parts: 09.00-12.00 and 13.00-16.00

#### **Target audience**

The course is intended for 1st-year PhD candidates and junior researchers at Amsterdam UMC, but all Amsterdam UMC researchers who want to learn more about data processing in the SPSS environment are free to attend.

# DS Research Data Management: Writing a Data Management Plan

This course addresses the broader concept of Research Data Management through the biomedical research data lifecycle.

Adequate research data management is at the basis of research quality, integrity and reproducibility. A researcher should be in control of his or her data through the entire research data life cycle: from study preparation and data collection, data processing and data analysis, to publishing and archiving. Both Amsterdam UMC and funding agencies request a data management plan and publishers increasingly require data to be available. During this course, you will learn how to create a good Research Data Management Plan (DMP). This course focusses on requirements from the Amsterdam UMC and funders and emphasizes FAIR (Findable, Accessible, Interoperable, Reusable) handling of data and compliance with privacy and study type-specific requirements (lab/animal/human, subject to/not subject to WMO, etc.).

#### Foreknowledge: E-learning: Research Data Management

- VUMC: <u>https://vumccostregistration.competence.biz/registration/index/77381c2ac55b-469a-8daf-315b5cd3bb6c</u>
- AMC: <u>https://login.studytube.nl/?back\_link=https%3A%2F%2Famc.studytube.nl%2Flearningtracks%2F29761</u>

#### **Target audience**

The course is intended for 1st-year PhD candidates and junior researchers at Amsterdam UMC who are at the beginning of their research path, but all Amsterdam UMC researchers who want to learn more about Research Data Management and writing a Data Management Plan are free to attend.

#### Format

The course consists of:

 $\cdot$  A mandatory e-learning (approximately 4 hours) to be completed before the online interactive course day.

Handing in a draft DMP, based on the RDM SOP.

If your funder requires a different DMP template, please contact the course organizers through <u>RDMtrainingen@amsterdamumc.nl</u>. Note: The Out of Office reply does not apply to communication on courses.

- An online course day of 3,5 hours
- · Handing in a final DMP

#### Study load

Participants who complete all mandatory components (e-learning and workshop on DMP, plus possible SPSS workshop) will be awarded 1 ECTS.

# DS Research Integrity PhD course

What does it mean to do 'good' research and to be a 'good' researcher? What does it mean to act 'professionally' and with 'integrity'? How can we approach dilemmas and conflicts we experience in research? Who can we turn to if we suspect poor research practices?

This Research Integrity PhD course will explore these questions and more. By reflecting on their own experiences, participants are encouraged to reflect on their own values, as well as recognized guidance for the responsible conduct of research, when they encounter challenging issues related to research integrity in their own work.

The course follows a blended learning approach. PhD candidates undertake a series of short interactive eLearning modules as preparatory assignments as well as 1.5 days of participatory sessions consisting of group work designed to reflect on experiences of research practice and short lectures on research integrity and open science.

Participants are also made aware of the institutional support available to them when they encounter questionable research practices.

#### **Target group**

This course is appropriate for all PhD candidates. It is a mandatory course for PhD candidates from Amsterdam UMC who are preparing a PhD graduation at VUmc.

#### Format

The course is a blended courses with e-learning modules by self study and course sessions are given in 1,5 session days.

#### **Study Load**

E-learning (self study) and 14 hours sessions which is comparable to 2 ECTS points.

#### Content

#### eLearning modules

- Introduction to research integrity
- <u>Introduction of virtue ethics to research integrity</u>
- <u>Virtue ethics under current circumstances</u>
- Introduction to Responsible Supervision, Mentoring and Role-modeling

## DS Scientific Writing in English

This course on writing a scientific article will teach you to write well-structured, easily flowing scientific texts that help get your message across clearly, through the study of theory, analysis of published texts, relevant exercises and writing assignments.

#### Format

The course runs eight times a year. Each course consists of four sessions, plus written assignments that receive individual feedback from the instructor and peer reviewers (other course participants). Attendance at all four sessions and completion of all writing assignments is compulsory.

#### **Target Audience**

Amsterdam UMC PhD candidates with research experience who have finalized much of the theoretical and technical aspects of their research and have at least some results that are ready to be turned into a research article.

#### Study load

42 hours, which is comparable to 1.5 ECTS.

#### Content

Topics covered include, but are not limited to:

- Academic writing as a genre - how is academic English different from 'regular' English and why is that important; - Introductions - creating a research space; using the right tenses to get your message across; - Method section - how and when to use passives; - Discussion - structure, tense use, hedging, and writing about strengths and limitations; - Writing well-structured paragraphs; - Common errors - how to avoid them

The course will require you to study some theory between sessions (videos and textbook sessions) and work on writing assignments (Introduction and Discussion). The sessions will consist of mini-lectures on theory, working on and discussing exercises and analyses directly relevant to your writing, and giving and receiving peer feedback of the writing assignments.

You will also receive detailed feedback from your instructor on your written Introduction and Discussion.

## DS Searching for a Systematic Review

This is a introductory course for developing search strategies in Medline and Embase via the Ovid platform.

By the end of this course the participant should be able to know: 1. the difference between a background and foreground research question; 2. the overlap and differences between Medline and Embase; 3. proximity/truncation/wildcard operators; 4. sensitive and relevance searching; 5. developing basic and understanding in-depth search strategy in Medicine and Embase via Ovid.

To know more about searching Literature please read this document:

Guide Searching for Literature (please scroll to end of page)

#### Format

The course consists of an online presentation and an interactive workshop. The goal of this course is to provide PhD candidates with an understanding of search strategies, and the skills needed to build a basic search strategy. The goal is not to become a proficient information seeker and the assistance of an information specialist during a systematic review process is still recommended.

#### **Target audience**

PhD candidates in the process of performing or planning a (systematic) review. Participants are (strongly) advised to have basic search experiences (see Guide for Searching Literature).

#### **Study Load**

2.5 hours, which is comparable to 0.1 ECTS points.

#### Content

Lecture: a presentation on subjects mentioned above

General assignments to discuss during the workshop

### DS Talents in PhD

Unleash the talents in you and provide practical tools to let your talents thrive in your own work and in team. The aim of the 2 workshop-sessions is to deepen the understanding of your talents and implement this knowledge into your daily work.

#### Format

Two on site sessions: "Talent and behavior" and "Talent and teamwork" - 2 hrs per session.

#### **Target audience**

PhD candidates who would like to unleash the talents and get tools to let your talents thrive in your work and in your team.

#### Study load

In total 5.5 hours: 2 x 2 hours attendance (workshop 1 and workshop 2) plus 1,5 hours preparation; which is comparable to 0,2 ECTS. [1 ECTS=28 uur)

#### Content session: Talent and behavior

Goal: Gain insight in your talents and behavioral preferences.

During this workshop, we will use the DiSC-model. This is a model based on 4 colors representing types of behavior. DiSC is a simple and powerful tool to provide insight in behavioral preferences, motives and communication style as well as your pitfalls. You will learn to recognize certain types of behavior and use this to the benefit of yourself. This insight will make it easier to communicate, collaborate and show leadership.

#### Content session: Talent under pressure

Goal: Gain insight on the use of your talents in teamwork and introducing tools to give feedback in hierarchic situations.

The behavioral preferences you have learned about in the previous workshop, are also of benefit in the collaboration with your supervisor and other colleagues. During this workshop, you will focus on these collaborations and you will learn how to use your talents for optimal teamwork. Moreover, you will learn the value of knowing the behavioral preferences of your colleagues. The second part of the workshop concerns feedback: giving feedback in a way that suits you and so that the other person can really benefit from it, even in hierarchical situations. This part of the workshop particularly focusses on the working relationship between PhD candidate and supervisor.

#### **Target Audience**

PhD candidates who are interested to find out more about their talents and how to let talents thrive.

# DS Zoeken voor een CAT (e-learning)

This e-learning (Dutch only) gives insight in search method strategies following the Critical Approach Topics (CAT) used in Evidence Based Medicine.

To know more about searching Literature please read this document: <u>Guide for Searching Literature</u> (please scroll to end of page)

Format This course is an individually taken e-learning course.

Target audience PhD candidates who would like to now more Critical Approach Topics.

Study load 2.5 hours, which is comparable to 0.1 ECTS.

Content The search question, searching for evidence, searching in PubMed, tactics, tips and tricks.

Direct link to course: <u>CAT (amc.nl)</u>

### X DS Advanced qPCR This course is not organized anymore.

This course aims at advanced qPCR users and discusses how to set-up, perform and report a quantitative PCR experiment: from primer design till the analysis of the amplification data and their presentation in a scientific paper.

#### Format

A typical course day runs from 8.30 to 17.00 hrs and consists of lectures, hands-on computer exercises and a laboratory practical.

#### **Target audience**

PhD candidates. Experience with qPCR experiments, basic knowledge of molecular biology (DNA, primers, PCR) and basic knowledge of Microsoft Excel is required.

#### **Study Load**

20 hours, which is comparable to 0.7 ECTS points.

#### Content

After the first basics on RT-PCR, mathematics and statistics, the participants attend lectures and perform hands-on computer exercises on primer design, analysis of amplification curves, using reference genes, removal of systematic between-plate variation and stastistical analysis of the final data.

In computer hands-on the participants will be introduced to the LinRegPCR analysis application, both the Windows and web-based version. The laboratory exercises include the pipetting of two PCR plates by the participants. The results of this exercise will be analyzed, corrected for between-plate variation and discussed in the final section of the course. A guest lecturer will discuss and demonstrate a new web-based application and melting curves data.

### X DS Careermanagement for PhD This course is not organized anymore.

This workshop for PhD students enables you to explore and prepare possibilities for careers outside academia. As you complete your doctoral journey, it is essential to become aware of the diverse career opportunities available to you and develop the skills necessary for success in various professional environments. This training provides valuable guidance and tools to help you make a start in thoughtful and informed career choices by

- Exploring different career fields outside academia
- Investigating potential career paths and job roles
- Identifying and strengthening transferable skills to non-academic careers
- Developing personal leadership in networking
- o Effective networking strategies and building professional relationships
- Creating a personal career development plan
- Exploring job search strategies, including online platforms and networking opportunities

This workshop offers valuable insights, strategies, and tools for PhD students to effectively make a start navigating their career paths. Through self-reflection, the development of transferable skills, and an understanding of job search strategies, participants will be better prepared for a successful transition to non-academic careers.

#### Format

A workshop of 4,5 hours. 2 hours assignment to prepare for the course.

#### **Target audience**

PhD candidates.

#### **Study Load**

6,5 hours, which is comparable to 0.2 ECTS points.

# X DS Project Management This course is not organized anymore

This course is not active anymore. You are referred to the course DS Project Management (Team Based Learning)

# X DS Advanced Immunology

Note: The Amsterdam UMC Doctoral School is not the organizer of this course. You are therefore referred to the provider.

Please check this link to know more and to subscribe to participate:

Amsterdam UMC, Locatie VUmc - PhD Course Advanced Immunology 2024

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With this post graduate course, you will further extend your knowledge on recent developments in immunology and their insight in scientific questions and approaches in immunological research.

Topics include molecules, mediators, cells involved in immune responses; antigen-processing; regulation of immune responses; effector mechanisms; infectious diseases, cancer, autoimmunity and allergy. The course is strictly meant for PhD students working on projects that require substantial knowledge of principles in immunology.

#### **Target group**

The full course is strictly meant for PhD students working on projects that require substantial knowledge of principles in immunology. It is advised to attend this course in the first year of the PhD project.

Post-docs can only join the course online during the lectures, but cannot participate in workshops and social events. If you want to join the course online, click here to be placed on the waiting list.

#### Costs

For PhD students being part of the Amsterdam Institute for infection and immunity (AII) the registration fee is waived.

Other PhD students will pay a registration fee of Euro 300,-.

#### Registration

You can be placed on the wating- and or mailing list if you wish to be informed about the new dates for 2024 by clicking this link or click the button on top of this page.

#### Study load

80 hours, which is comparable to 2.9 ECTS points.

#### E-mail: events@amsterdamumc.nl

## X DS AGEM PhD candidate course

Note: The Amsterdam UMC Doctoral School is not the organizer of this course. You are therefore referred to the provider.

#### Application and more information:

https://www.amsterdamumc.org/en/research/institutes/amsterdam-gastroenterologyendocrinology-metabolism/education/phd-candidates/agem-phd-student-course-8.htm

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#### **Content:**

The Amsterdam Gastroenterology Endocrinology Metabolism (AGEM) research institute offers a course specifically developed for PhD candidates that perform research in the field of gastroenterology, endocrinology and metabolism. This course aims to inform (starting) PhD candidates about gastroenterology, endocrinology and metabolism, including those topics that are not necessarily within the scope of their own research.

#### **Target audience:**

AMC/VUMC PhD candidates in AGEM

#### Study load:

50 hours, which is comparable to 1.8 ECTS points.

#### **Course organizer:**

AGEM PhD candidate course coordinators: Hilde Herrema Annemieke Heijboer Eva Dirkx

#### **Application and more information:**

For more information about the course please follow this link:

https://www.amsterdamumc.org/en/research/institutes/amsterdam-gastroenterologyendocrinology-metabolism/education/phd-candidates/agem-phd-student-course-8.htm

## X DS Basic & Advanced Epidemiology and Biostatistics courses

Note: The Amsterdam UMC Doctoral School is not the organizer of this course. You are therefore referred to the provider.

#### More information and registration: epidm@amsterdamumc.nl or www.epidm.nl

EpidM organizes basic and advanced Epidemiology and Biostatistics courses and a Postgraduate Master Programme in Epidemiology (MSc).

The education is provided by Professors and Senior Researchers from the department of Epidemiology and Data Science (EDS), the Amsterdam Public Health research institute (APH) and by several guest lecturers, i.e., experienced epidemiologists and biostatisticians from other academic and non-academic research institutes.

**Format:** One of the strengths of the courses is the combination of lectures, guided working groups and computer practical's, which allows students to use the course material directly in practical assignments and/or by analyzing their own data. The courses are taught by highly experienced teachers, some of whom have written their own best selling textbooks which are used as course material.

#### The courses:

In Dutch:

- Epidemiologisch onderzoek: basisprincipes
- Principes van epidemiologische data-analyse
- <u>Regressietechnieken</u>
- Klinimetrie: het ontwikkelen en evalueren van meetinstrumenten
- Epidemiologisch onderzoek: verdieping
- Missing-data: consequenties en oplossingen
- Systematische reviews en meta-analyse
- Doelmatigheidsonderzoek: methoden en principes
- <u>Multilevel modellen en longitudinale data-analyse</u>
- Kwalitatief onderzoek in de praktijk van de gezondheidszorg
- Klinische predictiemodellen en machine learning
- <u>Mediatie analyse</u>
- <u>Medische basiskennis</u>
- <u>Statistische analyses met R</u>
- Kwalitatief onderzoek: verdieping en toepassing

In English

- <u>Clinimetrics: Assessing Measurement Properties of Health Measurement Instruments</u>
- <u>Multilevel Modelling and Longitudinal Data Analysis</u>

- <u>Clinical Prediction Models and Machine Learning</u>
- <u>Missing data: consequences and solutions</u>
- <u>Item Response Theory</u>
- Lifestyle Epidemiology
- <u>Causal Inference and Propensity Score Methods</u>
- Introduction to Bayesian Statistics

#### Price:

For PhD students of Amsterdam UMC working on a project that is part of the Amsterdam Public Health research institute (APH), a discount of 25% applies to the course fee of the courses and/or the Master Program in Epidemiology.

#### More information about the Postgraduate Master Programme (Dutch)

: https://www.epidm.nl/masteropleiding/

# X DS Bioinformatics and System Biology courses

Note: The Amsterdam UMC Doctoral School is not the organizer of this course. You are therefore referred to the provider.

#### More information and registration:

Course portfolio - BioSB

BioSB is the Bioinformatics and Systems Biology community in The Netherlands and offers **fundamental courses** and **advanced courses**. The current list of courses we offer can be found below.

**Fundamental courses:** fundamental courses are organised **once per year**. In 5 days, a range of experts from the Dutch bioinformatics & systems biology community will provide you a solid foundation in core technologies in bioinformatics and systems biology, laced with examples of applications. The advanced courses are build on this foundation.

Our fundamental courses are:

- Machine learning
- Integrated modeling and optimization

Advanced courses: advanced courses are organised once every 2 years. Each course deals with a specific topic in current bioinformatics and systems biology. Each 5-day course is organized by experts and exposes students to both fundamental approaches and recent developments. Most build on methods introduced in the fundamental courses, though depending on prior education it may not be needed to follow these first.

Our advanced courses are:

- Algorithms for biological networks
- Algorithms for genomics
- Computational metagenomics
- Constraint-based modeling
- Knowledge graphs in the life sciences
- Molecular epidemiology of complex diseases
- RNA-seq data analysis
- Statistics for omics
- Systems medicine

**Other courses:** we occasionally also co-organise courses with other research schools or announce other courses via our website. These courses may have a different format and be offered occasionally only. Other courses are announced via the <u>upcoming courses list</u>.

An overview of all the courses (format, study load, ECTS and prices) can be found on <u>Course</u> portfolio - <u>BioSB</u>

# X DS Cellular Imaging: Advanced Course in Microscopy

# *Note:* The Amsterdam UMC Doctoral School is not the organizer of this course. You are therefore referred to the provider.

This course is organized by the core facility of cellular Imaging and provides an in-depth view of specific advanced imaging techniques used at the imaging center of the AMC.

#### More information and registration:

For registration please contact Claudia Rhebergen | e-mail: <u>c.rhebergen@amsterdamumc.nl</u> | tel. +31 (0)20 566 4950

#### Format:

This course runs once a year for five consecutive days. The course focuses fully on intensive hands-on practical sessions and interactive discussions with experts in the various advanced microscope techniques. On the final day participants present their own research topic and discuss which techniques should be implemented in their project.

#### **Target audience:**

PhD candidates and postdocs. An introduction course like the Basic Microscopy Course is a prerequisite for the Advanced Microscopy Course.

**Study load:** 44 hours

**ECTS points:** 1,6 points

#### Short course description:

The course will take place at the AMC (core facility Cellular Imaging). The participants will focus in depth on specific advanced imaging techniques, including deconvolution and imaging on the Thunder microscope, TEM-EDX imaging and correlative microscopy (bridging fluorescence microscopy and electron microscopy). Also AI scripts, deep learning and data analysis are included.

#### **Course organizers:**

Eric Reits and Daisy Picavet, AMC department of Medical Biology

e-mail: <u>e.a.reits@amsterdaumc.nl</u> | tel: + 31 (0)20 566 6259,

e-mail: d.i.picavet@amsterdamumc.nl | tel: + 31 (0)20 566 0080

# X DS Cellular Imaging: Basic Course in Microscopy

# *Note:* The Amsterdam UMC Doctoral School is not the organizer of this course. You are therefore referred to the provider.

This course teaches the application of the broad range of imaging possibilities within the core facility Cellular Imaging (fluorescence and electron microscopy and flow cytometry) at the AMC and collaborating facilities.

#### More information and registration:

For information and registration: <u>https://www.ooa-graduateschool.org/basic-microscopy/</u> For any questions or need for extra information, please contact Esther Ruhe: <u>e.ruhe@amsterdamumc.nl</u> or Eric Reits, Department of Medical Biology e.a.reits@amsterdamumc.nl, tel. +31 (0)20 - 566 6259.

#### Format:

This course runs twice a year on five consecutive days at three different locations (Amsterdam UMC (AMC, VUmc) and NKI. The course consists of lectures, discussions and hands-on demonstrations.

#### **Content:**

The individual research projects of the attending participants will be discussed in relation to the demonstrated techniques, allowing exchange of ideas with fellow participants and microscopy experts and operators. The course is a guide to implement cellular imaging in the participant's own research project.

The topics covered are;

- basic principles of microscopy;
- specimen preparation and staining methods;
- quantitative analysis of microscopic images (e.g. Image J);
- fluorescence and electron microscopy techniques (including live cell and confocal imaging).

#### **Target audience:**

Amsterdam UMC PhD candidates.

**Study load/ECTS** 44 hours = 1,5 ECTS

#### **Course organizers:**

Eric Reits and Jeroen Belien

# X DS Cellular Imaging: From Pixel to Publication

Note: The Amsterdam UMC Doctoral School is not the organizer of this course. You are therefore referred to the provider.

#### Application and more information:

For more information about the course please contact: Przemek Krawczyk, Department of Medical Biology, e-mail: p.krawczyk@amsterdamumc.nl, tel: + 31 (0)20 566 8746

#### **Course description:**

Teach how to generate well-designed, publication-quality figures, manuscripts in PDF format, and ultimately PhD theses from graphical and text data using Adobe Creative Cloud (CC) - Photoshop, Illustrator, Acrobat and InDesign. The course will teach general understanding of software, best practices and workflows.

Clear presentation of research output in a scientific publication, as a PhD thesis, or on a website, has become an essential yet challenging task for anyone in the data-rich environment of life sciences. Typical examples include producing publication-grade figures from raw graphics objects (images or graphs) or compiling the PhD thesis from graphics and text data. Adobe Creative Cloud (CC) - Photoshop, Illustrator, Acrobat and InDesign.

Understanding CC combined with basic training, driven by the needs of PhD students, will increase the quality and communicability of your scientific output, and teach valuable skills that can be transferred to any modern creative or production environment.

#### Format:

This course runs twice a year (May and October), on 3 consecutive mornings The course consists of 1-2 h of theory and instruction, followed by 2-3 h of practical computer training. Final exam: generate a chapter of a PhD thesis from raw graphics and text data.

#### **Content:**

 General understanding of computer-generated graphical data formats, with special focus on pixel- and vector-based graphics.; 2. Detailed understanding of optimal workflows to generate publication-quality figures and PhD thesis from any graphical or text data.;
Focussed training in Adobe Photoshop, Illustrator, Acrobat and InDesign, tailored to the needs of these workflows.

#### Target audience: AMC/VUMC PhD candidates

Study load: 22 Hours, which is comparable to 0.8 ECTS points.

# X DS Combining Teaching and Learning

**Note:** The Amsterdam UMC Doctoral School is not the organizer of this course. You are therefore referred to the provider.

Improve your guiding skills by introducing students to the world of your research.

Supervise first-year students in this program, using your own research as a practical example (Kennismaking Wetenschappelijk Onderzoek)

More information and registration: <u>kwo@amsterdamumc.nl</u>

Format: Blended

**Study load:** 28 hours

**ECTS points:** 1 ECTS

#### Short course description:

Do you want to get experience of supervision and gain 1EC for your PhD training portfolio at the same time? Then the "Kennismaking Wetenschappelijk Onderzoek (KWO)" program might be of interest to you!

The KWO program is mandatory for all medical students in the first year of the bachelor's program. They often still have a one-sided image of 'the scientist'. You help them discover what it's really all about.

You will supervise a group of six students during September through April. During the program, the students carry out various practical assignments about your research with the aim of gaining more insight into why scientific research is important within Medicine, what skills and knowledge this requires from (future) doctors, and what is involved in scientific research. Following real research taking place within Amsterdam UMC (your research!) supports students to look at (bio)medical research both appreciatively and critically.

See the flyer and program letter (click on <u>documenten</u> in the list on top of page) for more information.

You can register as a supervisor via this link: <u>https://fd20.formdesk.com/vuamsterdam/KWO\_supervisors\_24-25</u>

For more information contact: KWO@amsterdamumc.nl

## X DS Laboratory Animal Science

# *Note:* The Amsterdam UMC Doctoral School is not the organizer of this course. You are therefore referred to the provider.

The Laboratory Animal Science course Amsterdam, to obtain an art. 9 qualification, focuses on the respectful and responsible use of laboratory animals in biomedical research and on the legal constraints thereof.

The LAS course Amsterdam is a FELASA accredited course. It fulfils the requirements of Function B (designing procedures and projects). After the course you can follow trainings to fulfil the requirements of Function A+D (carrying out procedures on animals + killing animals).

#### More information and registration:

Application on this website: Course: Laboratory Animal Science (amsterdamumc.org)

Questions? Please contact the course coordinator Ashna Ramkisoensing via <u>cursuspdk@amsterdamumc.nl</u> / tel. +31 (0)20 - 566 1824 / ARIA-IWO I.0B-110 or via the secretary of the Animal Welfare Body (020-5667113).

#### Format:

The course is given in English

The LAS course integrates basic topics in laboratory animal science with species-specific knowledge on mice and rats. Participants will receive 2 certificates.

Introduction to Laboratory Animal Science course includes the modules

- 1. National legislation
- 2. Ethics, animal welfare and the three R's (level 1)
- 3. Ethics, animal welfare and the three R's (level 2)
- 3.1. Basic and appropriate biology (theory)
  - 4. Animal care, health and management (theory)
  - 5. Recognition of pain, suffering and distress
- 6.1. Humane methods of killing (theory)
  - 10. Design of procedures and projects (level 1)
  - 11. Design of procedures and projects (level 2)
  - 12. Anaesthesia for minor procedures
  - 13. Principles of surgery

The species-specific course on mice and rats includes the modules

3.1 Basic and appropriate biology

- 4. Animal care, health and management (theory
- 5. Recognition of pain, suffering and distress
- 6. Minimally invasive procedures without anesthesia

Teaching Tools online and on location: Lectures, Case study/ Problem-based learning, Student's presentations, Seminars/ Tutorials, Group work, e-Learning/ on-line learning, Demonstration of Handling/ sampling/ procedures, Hands-on training in Handling/ sampling/ procedures, and Home study.

The LAS course runs at least two times a year (in the 1st trimester and in the 3rd trimester), during a three week period with 16 to 26 participants. Hundred percent attendance is mandatory.

#### **Target Audience:**

Researchers who will design and manage research projects and procedures which include animal experiments.

Those holding a LAS course certificate from one of the member states of the EEA outside the Netherlands may be exempted from certain modules and the corresponding parts of the exam, depending on details of the course followed, as well as on the assessment by the Dutch authorities.

The module 1 National Legislation is obligatory at all times.

Prerequisites for admission to the course.

The Animal Welfare Body of the Amsterdam UMC can only register you if you have

1) a relevant EEA master's degree and 2) basic knowledge of laboratory animal science and species-specific knowledge of the species you want to work with.

To avoid taking the course with an irrelevant master's degree or degree from outside the EEA, the LAS course coordinator will review your bachelor's and master's degree and transcripts on behalf of the AWB.

• The Dutch authorities require knowledge of basic biology subjects up to 18.75 ECTS \*\* (=500 study hours) in bachelor's or master's degree including at least 7.5 ECTS on organismal anatomy/zoology and 7.5 ECTS on physiology.

\*\* EC = European Credits (European Credit Transfer System, ECTS) One week of full-time = 40 SBU or 1.4 EC.

Sometimes the names of the bachelor and master subjects mask the content. That is why the course coordinator on behalf of the AWB tests your anatomy and physiology knowledge in a written test preferably 1 week prior to the course or 3-4 weeks after the course.

#### **Recommendation:**

Participation in the course requires sufficient proficiency in English

#### Study load:

3 weeks, 110 hours, which is comparable to 3.9 EC. 100% attendance is mandatory

#### **ECTS points:**

3,9 points

#### **Price:**

The Laboratory Animal Science course (basic course including species-specific course on mice and rats) costs 1850 euro for participants from Amsterdam UMC, VU and NKI. External participants pay 2150 euro.

# X DS Language courses (UvA Talen and INTT)

*Note:* The Amsterdam UMC Doctoral School is not the organizer of this course. You are therefore referred to the provider.

#### More information and registration:

UvA Talen: You can check all languages and starting dates on <u>uvatalen.nl/groupcourses</u>.

INTT For more information and applying: <u>http://intt.uva.nl/dutch-for-foreigners/dutch-for-foreigners.html</u>

#### Format:

UvA Talen's Dutch evening courses, for example, consist of one or two classes a week, and start four times a year. For those who want to improve their language ability in a short period of time UvA Talen offers (semi-)intensive daytime courses, starting each month. Besides Dutch, there are eleven other languages to choose from, including English, Spanish and Chinese. UvA Talen also offers e-learning e-learning through The Language Academy, which includes realistic Amsterdam-based videos, audio clips, online exercises and also an option for an Online+Teacher package.

In addition to regular language courses, UvA Talen offers tailor-made programmes designed to suit specific needs and individual schedules. These include industry-specific corporate courses and individual programmes aimed at medical Dutch. Special offers for tailor-made programmes are available for AMC/AMR employees. Find out more on uvatalen.nl/tailormade.

The INTT offers Dutch courses at different levels of varying intensity to students of the University of Amsterdam and other highly educated foreign language speakers, both at daytime and in evening classes.

#### Study load:

variable

#### **ECTS points:**

variable (28 working hours is 1 ECTS)

#### **Price:**

UvA Talen offers an exclusive 15% discount on all group courses for AMC/AMR employees. To claim your discount, use the promotional code **AMC24** when registering. Once you have enrolled, you will be asked to provide proof of your right to a discount by showing your student card or staff ID card.

INTT offers reduced fees for PhD candidates. You need to prove that you are connected to the University of Amsterdam.

#### Short course description:

UvA Talen, the independent language centre of the University of Amsterdam, offers a wide range of fast-paced and lively online and in-class courses in 12 different languages, ranging from elementary to advanced levels. During these courses students work on their general language skills, and systematically and rapidly build up vocabulary.

Additionally, the Institute for Dutch Language Education (INTT) offers a wide range of Language and Culture courses for foreign students and staff. They are also open to educated foreign language speakers who are not planning to pursue any other course of study at the University of Amsterdam. The INTT, part of the Faculty of Humanities at the University of Amsterdam, advises faculties and institutes of the UvA and other organisations in the field of Language Acquisition. The INTT also provides in-company trainings and private lessons.

# X DS Participatory Action Research (PAR)

*Note:* The Amsterdam UMC Doctoral School is not the organizer of this course. You are therefore referred to the provider.

#### More information and registration:

Participatory Action Research (PAR)

#### Format:

Classroom, due to COVID the next editions will take place online

#### Study load:

Four-day course and preparation

#### **ECTS points:**

3 points

#### **Price:**

€ 1.800 (25% discount for PhD Candidates of the Amsterdam Public Health institute)

#### Short course description:

Participatory action research (PAR) is an approach to action research emphasizing participation and action by members of communities affected by that research. It seeks to understand the world by trying to change it, collaboratively and following reflection. How do you involve people in research in a meaningful way? Which steps are crucial in the process of learning, doing and changing? How do you organize these processes and what is the role of the researcher?

In this four-day course we will consider fundamental, theoretical and practical questions so that you can get started with this research approach. We pay attention to the underlying principles and values, theoretical background, quality criteria and ethics of PAR. Furthermore, full attention is paid to all steps in the process of participatory action research, such as participatory methods of data collection, analysis and evaluation. The course consists of lectures and tutorials. Practical examples are used to illustrate how PAR can be implemented in different contexts, e.g. care, welfare, prevention and local policy, and with different groups, including children, elderly, people living with chronic illness or disabilities.

The following topics are covered:

- Theoretical background of PAR
- Role of the researcher/researchers, partnership, dialogue
- Ethics and quality
- Stages in the process: working together from start to finish
- Collective action, empowerment and change
- Creative, participatory methods of data collection and analysis
- Reflection and evaluation for change and impact.

## X DS Sex and Gender in Epidemiological Research

*Note:* The Amsterdam UMC Doctoral School is not the organizer of this course. You are therefore referred to the provider.

In this e-learning, you will learn the basics of sex- and gender-sensitive epidemiological research.

#### More information and registration:

Sex and gender in epidemiological research | Review 360 (articulate.com)

**Format:** e-learning

**Study load:** 2 - 3 hours

# **ECTS points:** 0,1 ECTS

#### Short course description:

In this e-learning, you will learn the basics of sex- and gender-sensitive epidemiological research. Sex and gender differences in health are increasingly recognized in different research areas, and have gained significant attention over the last years. Nowadays, many funding organizations actually require researchers to consider sex and gender, and the implications these may have for their research, when applying for funding.

This e-learning will take you through the entire research process, and teach you the basics on how to incorporate sex and gender in every step, from formulating a research question to writing up your results. First, you will learn how to define, critically reflect on, and discuss sex and gender. Next, you will learn how to conceptualize the role sex and gender may have in your research, how to measure sex and gender in new studies, or recognize sex and gender measures in existing epidemiological data. Finally, you will learn how to report on sex and gender.

# X DS UX for Healthcare

Note: The Amsterdam UMC Doctoral School is not the organizer of this course. You are therefore referred to the provider.

#### **Application and more information:**

For more information about the course please contact: <u>eHealth-Living-Learning-Lab@amsterdamumc.nl</u>

For registration please use this form

#### Format

In this practical course, provided by eHealth Living & Learning Lab Amsterdam, you will gain first-hand experience of UX (User Experience) design and research are crucial in eHealth.

UX (user experience) design and research are crucial in eHealth. Apps, websites and other digital technologies can facilitate person-centred care - but only if they are *usable*. Usable technologies are effective, efficient and easy to use. But how do you evaluate whether technology is usable? If people experience problems with technology, what research can you do to diagnose theunderlying causes, and prescribe the right "treatments"?

This practical course, provided by Amsterdam UMC's eHealth Living & Learning Lab Amsterdam (ELLLA), answers these questions. Based on a case study, you will gain firsthand experience of UX research. You will get personal support to plan and perform a "thinkaloud" study, and analyse the collected data.

#### **Target Audience**

PhD candidates researching the design, evaluation or implementation of an app, website or other digital technology.

#### Content

- Research design based on cognitive models of human-computer interaction.
- How to plan and conduct usability research using the "think-aloud" method.
- How to analyze think-aloud data to describe usability problems and identify solutions.

Participants will complete compulsory literature, e-lectures and assignments in their own time.

### Study load:

56 Hours, which is comparable to 2 ECTS points.

#### Course fee

€ 850 (€500 for PhD candidates affiliated with the VU or UvA)

#### Tutors

Dr. Linda Dusseljee-Peute, Director ELLLA

Dr. David Neal, Assistant Professor ELLLA

# Course Overview Amsterdam UMC Doctoral School

Courses organized by Amsterdam UMC Doctoral School:

DS Advanced Topics in Biostatistics DS Amsterdam UMC World of Science DS Clinical Epidemiology: Evaluation of Medical Tests DS Clinical Epidemiology: Observational Epidemiology DS Clinical Epidemiology: Randomized Clinical Trials DS Clinical Epidemiology: Systematic Reviews DS Computing in R DS Correct Citation (e-learning) DS Data Analysis in MATLAB DS Didactical Skills (in Dutch) DS eBROK DS EndNote (e-learning) DS Entrepreneurship in Health and Life Sciences DS MRI Basic understanding for (Bio)Medical Research DS Peer to Peer Group coaching DS PhD BYBJ Be Yourself (Be Your Best Journey) DS PhD BYBJ Say what you mean (Be Your Best Journey) **DS Practical Biostatistics** DS Presenting with Confidence (in English) DS Project Management (Team Based Learning) DS PubMed (e-learning) DS Qualitative Health Research DS Research Data Management (e-learning) DS Research Data Management: Processing Clinical Data in SPSS DS Research Data Management: Writing a Data Management Plan DS Research Integrity PhD course DS Scientific Writing in English DS Searching for a Systematic Review Ds Talents in PhD DS Zoeken voor een CAT (e-learning) X DS Advanced qPCR (not organized anymore) X DS Careermanagement for PhD (not organized anymore) X DS Project Management (not organized anymore) Courses organized by others: X DS Advanced Immunology

- X DS AGEM PhD candidate course
- X DS Basic & Advanced Epidemiology and Biostatistics courses
- X DS Bioinformatics and System Biology courses
- X DS Cellular Imaging: Advanced Course in Microscopy
- X DS Cellular Imaging: Basic Course in Microscopy
- X DS Cellular Imaging: From Pixel to Publication
- X DS Combining Teaching and Learning
- X DS Laboratory Animal Science
- X DS Language courses (UvA Talen and INTT)
- X DS Participatory Action Research (PAR)
- X DS Sex and Gender in Epidemiological Research
- X DS UX for Healthcare