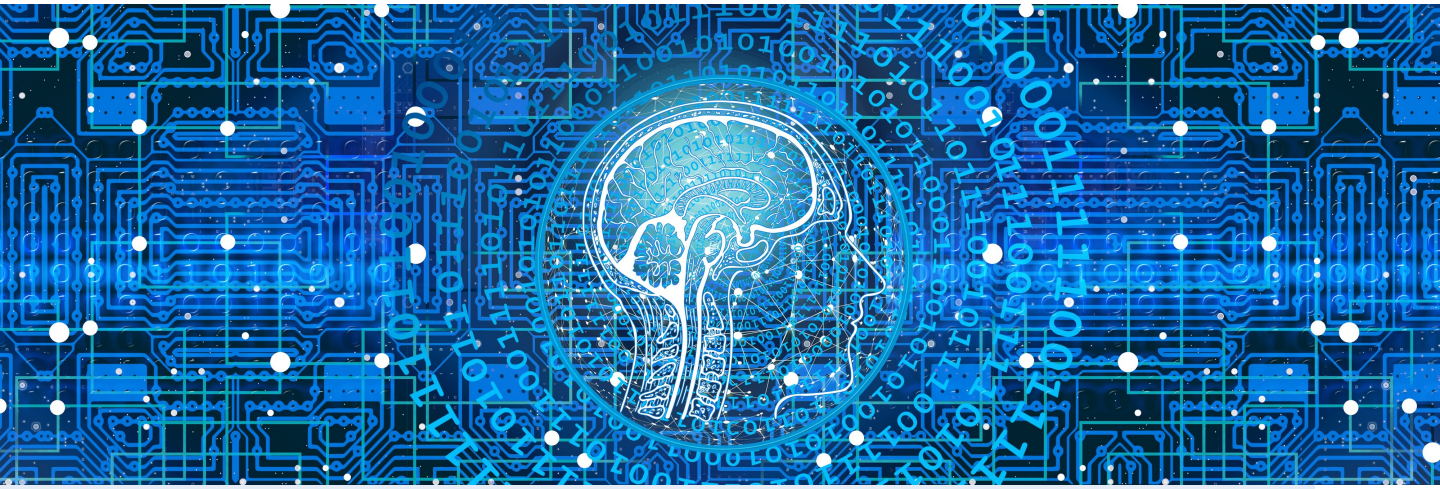
HSeT
Health Sciences
e-Training
Foundation



Online Data Science Course with Focus on Life Science and Medicine

Take charge of data analysis in your projects and enhance your skills in this process by following our 12-week distance-learning program, including optional live coaching sessions.

About HSeT's training programs

HSeT develops e-learning programs that are tailored to the needs of specific groups of trainees as defined by the institutions themselves. This customized online training (COLT) approach integrates novel pedagogical strategies and tools to map and assess each individual student's progress at every step.

Partnership agreements based on "Creative Commons" provide the framework to share high-quality teaching material between all partners.

HSeT's mission

HSeT is a Swiss non-profit organization created in 2006. The foundation consists of a large network of internationally renowned experts and has become a share point for its partners due to its vast amount of validated teaching material and in house knowledge.

In collaboration with its national and international partners, HSeT has created numerous distance learning and training programs. Several high-quality programs are offered for free or at very low costs to trainees in the developing world. This is possible thanks to the substantial *pro bono* activities performed by HSeT's members, which constitute a large network of active and retired national and international University faculty members.

What is the course about?

This cutting-edge course is designed to equip professionals and students in the life science and medical fields with the essential skills and knowledge required to effectively analyze and interpret data and to improve decision-making.

With a comprehensive curriculum that covers approximately 95% of common statistical tests, our Short Course in Data Analysis for Life Science and Medical professionals provides participants with a solid foundation in data analysis. Through a combination of distance learning, live coaching sessions, and hands-on examples, participants will acquire the necessary expertise to unlock the full potential of their data.

What sets this course apart from others its connection to a master experiment, making it easier for you to grasp the theoretical and practical aspects. You'll be able to relate your own experiments and data to this core experiment, fostering a deeper understanding of statistical concepts. Our cutting-edge e-tool serves as a plug-in tool, allowing you to effortlessly apply the concepts you've learned to custom-created experiments and data. It unlocks a world of possibilities and empowers you to confidently approach any statistical analysis.

Course benefits

Data and exercises you can relate to

Integrative learning path between theory and practice

Instructions and videos for Graphpad, Minitab, R and Python scripts available for a large variety of statistical tests and graphs

Large flexibility with personalized support

Certified by an official Swiss foundation

Become a member of the HSeT community

Course program

General introduction and introduction to data analysis e-tool
Introduction to R and Minitab
Descriptive statistics
Inferential statistics
- Probability distributions, central limit theorem
- Hypothesis testing, errors, confidence interval
- One sample and two sample tests
- Regression and correlation
- ANOVA/mixed model
- Survival analysis

Experimental design
New: Basic concepts in machine learning
Personal project

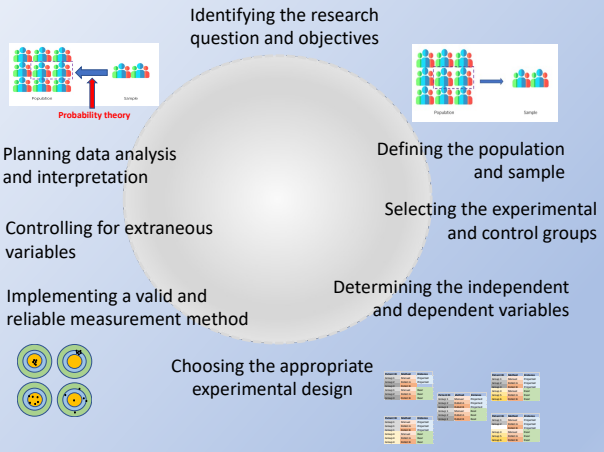
There will be weekly 1 hour live classes at 17.00 (CEST).

Who is the course for?

Life scientists and/or MDs

Professionals working with health-related information

Statistical knowledge is not required



What will you be able to do?

Design experiments from a data analysis point of view, including determinations of relevant sample sizes

Apply and execute an appropriate strategy to analyze data (i.e. apply relevant tests and graphs)

Present experiments and resulting data to people in the field and specialists in other fields such as statisticians

Analyse data with support system of the course and report data ready for publication

Who will support you?

Teacher: Pascale Anderle, PhD, senior scientific program manager

Members of the HSeT academia depending on your needs and fields

HSeT core team

Scholarship program

HSeT is committed to offering high-quality education to people from around the world. In the framework of this mission we offer scholarships for highly motivated students. Preference will be given to students residing in developing countries.

Send us the following information:

- ½ A4 page describing your motivation to enroll in the course
- Short biosketch of maximum 500 words
- Course format you are interested in

Send your application to scholarships@hset.org

Formats, registration and fees

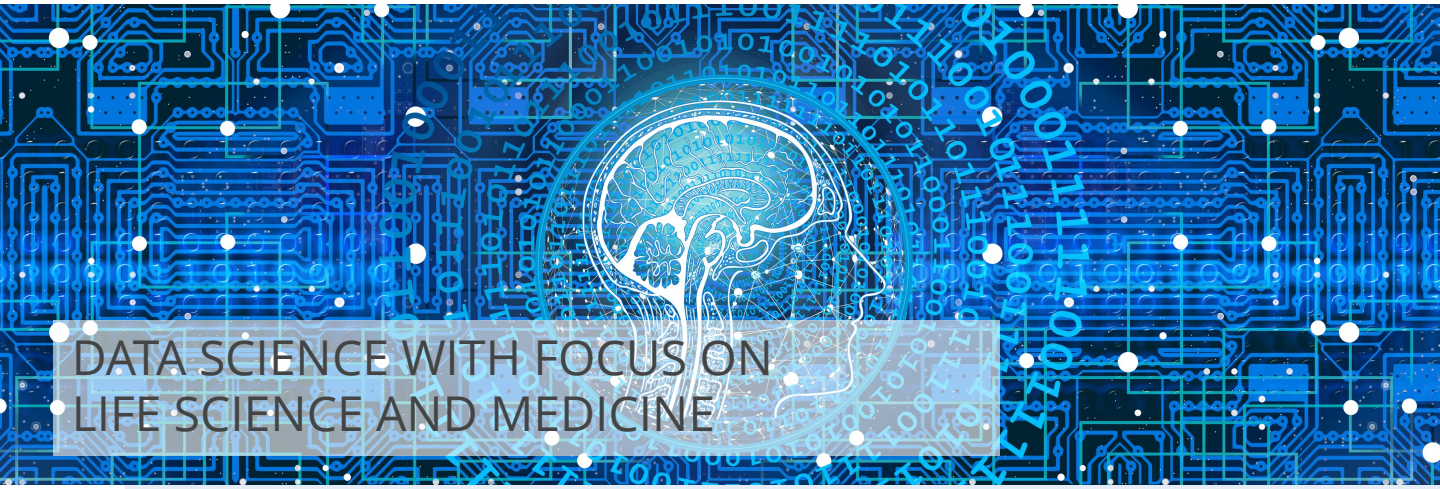
- **Light and flexible**:
  - E-learning only, no live classes, access to recorded lectures as option
  - Students 150 CHF, others 250 CHF, optional add-ons extra
- **Interactive**:
  - E-learning, weekly live one hour sessions
  - Students 350 CHF, others 750 CHF

Special fees apply to our partners.

Registration and payment via website. Payment deadline 1 week before start of course.

www.hset.org

Course program 2024/2025



Date	Topic
13.11.24	Week 1: General introduction and introduction to e-tool
20.11.24	Week 2: Introduction to R and Minitab
27.11.24	Week 3: Descriptive statistics and graphs
04.12.24	Week 4: Probability distributions
11.12.24	Week 5: Confidential interval and central limit theorem
18.12.24	Week 6: Hypothesis testing
	Break, personal project
08.01.25	Week 7: One sample and two sample tests
13.01.25	Week 8: Regression and correlation
22.01.25	Week 9: ANOVA and mixed model
29.01.25	Week 10: Survival analysis and personal project
05.02.25	Week 11: Review and personal project
12.02.25	Week 12: Basic concepts in machine learning
19.02.25	Personal project and exam
26.02.25	Certificates signed and sent