



# Data science online course with focus on life science and medicine

Take charge of the data analysis process in your projects and enhance your skills with our 12 week distance learning program with optional live coaching sessions.

## About HSeT's training programs

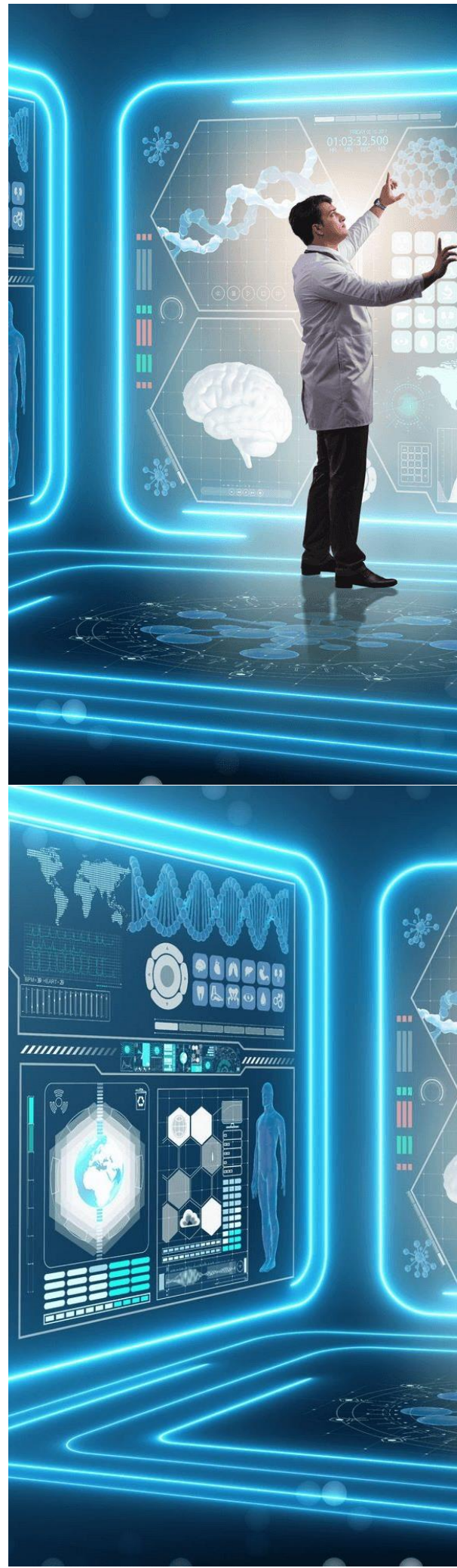
HSeT develops e-learning programs that are tailored to the needs of specific groups of trainees as defined by the institutions themselves. This customized online training (COLT) approach integrates novel pedagogical strategies and tools to map and assess each individual student's progress at every step.

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 international, highly qualified experts and has become a share point for its partners due to its vast amount of validated teaching material and in house knowledge.

HSeT has created with its national and international partners a vast number of distance learning and training programs. Several high-quality programs offered for free or at very low costs target trainees in the developing world. This is possible thanks to the significant pro bono activities by the HSeT members, 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 field with the essential skills and knowledge to effectively analyze and interpret data and for improved decision-making.

With a comprehensive curriculum that covers around 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 is 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 while 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

- Hypothesis testing, errors, confidence interval

- One sample and two sample tests

- Regression and correlation

- ANOVA/mixed model

- Survival analysis

Experimental design

Introduction to 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



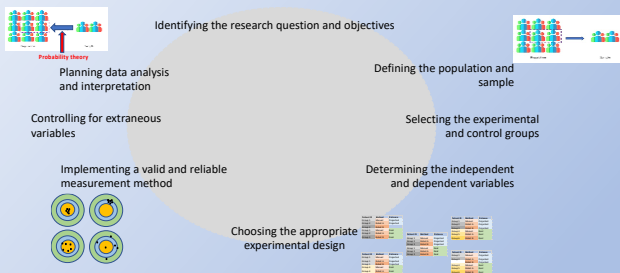
# What will you be able to do?

Design experiments from a data analysis point of view incl. defining relevant sample sizes

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

Explain 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

*As a scientist and teacher, I am particularly interested in the application of data science to the life sciences and medicine. I enjoy guiding students in using data to complement experimental findings, explore biological and medical complexity, and develop robust scientific approaches.*

Pascale



# Scholarship program

HSeT is committed to offer high-quality education for people 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 this the course and a
- short biosketch of maximum 500 words
- Course format you are interested in

Send your application to  
[scholarships@hset.org](mailto: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](http://www.hset.org). Payment deadline 1 week before start of course.**

[www.hset.org](http://www.hset.org)

## Course program 2026/2027



### DATA SCIENCE WITH FOCUS ON LIFE SCIENCE AND MEDICINE

| Date       | Events                                                  |
|------------|---------------------------------------------------------|
| 31.10.2026 | Registration complete, enrolment closed                 |
| 05.11.2026 | Week 1: General introduction and introduction to e-tool |
| 12.11.2026 | Week 2: Introduction to R and Minitab                   |
| 19.11.2026 | Week 3: Descriptive statistics and graphs               |
| 26.11.2026 | Week 4: Probability distributions                       |
| 03.12.2026 | Week 5: Confidential interval and central limit theorem |
| 10.12.2026 | Week 6: Hypothesis testing                              |
| 17.12.2026 | Week 7: One same and two sample tests                   |
| 24.12.2026 | Break                                                   |
| 31.01.2026 | Break                                                   |
| 07.01.2027 | Personal project, no live class                         |
| 14.01.2027 | Week 8: Regression and correlation                      |
| 21.01.2027 | Week 9: ANOVA and mixed model                           |
| 28.01.2027 | Week 10: Survival analysis and personal project         |
| 04.02.2027 | Week 11: Review and personal project                    |
| 11.02.2027 | Week 12: Basic concepts in machine learning             |
| 18.02.2027 | Personal project and exam                               |
| 25.02.2027 | Certificates signed and sent                            |