Dear colleagues,

As our partner university, we would like to draw your attention to TU Graz' range of MOOCs, i.e. Massive Open Online Courses. We are offering online-courses completely open and free, and in this email we would like to present to you two new courses and invite your students to join. The MOOCs may be appealing to students of technical fields but also to students in many other areas:

Bayesian Probability Theory (start: March 4)

Microbiome and Health (start: May 17)

Please share this information on campus and with your students, login and register for one or both courses. (ALL the courses on the platform are free. Most of the other courses are German-taught. For all English-taught courses see: https://imoox.at/mooc/local/landingpage/courses.php)

If you have any questions, do not hesitate to contact our staff on office@imoox.at.

A short description about these MOOCs can be found in this email below.

If you do not want to receive any information regarding specific topics to do with our university in the future, please send an email to claudia.jansen@tugraz.at.

Best regards,

Claudia

MOOC: Bayesian Probability Theory

This course equips you with the methods of probability theory and enables you to deal with uncertainties, qualify decisions, assign probabilities and estimate parameters and models. Another ambition of this course is to promote critical questioning and to sensitize for decision making. The course will equip you with the toolbox to draw inference based on uncertain and incomplete information. As a whole, this MOOC delivers the basics that are needed in the fields

of machine learning and data science.
The course is split into 9 units altogether: Bayesics of probability theory, Discrete probability distributions and samples, Multivariate distributions, Combinatorics, Stochastic processes, Bayesian deep reasoning, Parameter and model estimation and classification, Continuous probability distributions and invariance, and Bayesian simulation techniques.
Each unit is motivated by a story-based problem and focused on providing the skills and techniques to solve it.
The content is designed for Bachelor students with a basic mathematical background. For unit 1 to 7, a prerequisite is the knowledge of the sum notation, vector calculus and simple algebraic transformation. The last units about continuous variables require integration techniques.
Be part of Captain Bayes' crew to sail the ocean of uncertainties and big data and join their adventures of probability theory. Sign up for free at https://imoox.at/course/bayes

MOOC: Microbiome and Health

This MOOC will comprise interactive lectures and presentations, experiments and even a game!

Microbiome research represents a novel chapter within microbiology. This MOOC provides an introductory knowledge platform for multiple disciplines such as medicine, agriculture, food science, biotechnology/-economy and informatics. The microbiome's influence on plant, human and planetary health will be discussed and novel techniques and methods for data analysis will be presented.

The following six chapters will be covered by the MOOC: Introduction, Techniques and Methods, the Plant Microbiome, the Human Microbiome, Resistome and Exposome, Microbiome Research or Planetary Health and SDGs.
After completing the MOOC, you will have acquired advanced knowledge about the microbiome and related topics in the field of plant and human research. You will be aware of state-of-the-art methodologies including bioinformatic data processing. You will know the potential of the microbiome to combat current global issues and the need for preservation strategies to protect microbial diversity and functions.
Basic biological knowledge is required to participate in the Microbiome and Health MOOC, but the most important thing to bring with you is general interest in this novel research field.
Sign up for free at https://imoox.at/course/microbiome

Mag. Claudia Jansen, Deputy Director

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COVID-19 opening hours: The International Office - Welcome Center is open for appointments!
We kindly ask you to arrange an appointment with your contact person in advance.
Updated COVID-19 information for international students and staff at TU Graz:
www.tugraz.at/go/internationals-covid19
Stay healthy, stay safe!