## BORDEAUX Summer Schools





#### Bordeaux Summer Schools

- > The University of Bordeaux organises summer schools that offer a range of high-quality, multidisciplinary, international courses for graduate and doctoral students as well as young researchers.
- In 2023, the Bordeaux Summer Schools programme includes a wide range of disciplinary themes. Courses take place between May and September and cover very different disciplines ranging from African studies to artificial intelligence to cardiology to digital humanities to neuroscience and more! These summer schools are highly selective and target international talents. Course content offers an enriching curricular experience with, depending on the discipline, a mixture of theoretical and practical training that demands a notable level of expertise and knowledge.
- Candidates must fulfil the specific requirements of their summer school of choice. Applications are examined and accepted based on the criteria of the summer school in question.

#### Agenda 2023

- > May 30<sup>th</sup> June 2<sup>nd</sup> Africa's populations by 2050: challenges and potentials
- > June 5<sup>th</sup> June 9<sup>th</sup> Space: convergence of new technologies
- > June 5<sup>th</sup> June 10<sup>th</sup> Conflits et interventions internationales
- > June 12<sup>th</sup> June 16<sup>th</sup> Philosophy in biology and medicine
- > June 14<sup>th</sup> June 16<sup>th</sup> Percutaneous interventions in congenital heart diseases
- > June 19<sup>th</sup> June 23<sup>rd</sup> Energy efficient embedded artificial intelligence

- > June 26<sup>th</sup> June 30<sup>th</sup> Cardiac electrophysiology
- > June 26<sup>th</sup> June 30<sup>th</sup> Digital humanities in theory and practice: legal history, political science, economics
- > July 16<sup>th</sup> July 28<sup>th</sup> French agriculture in New Aquitaine: strategies to face climate change
- > July 17<sup>th</sup> July 19<sup>th</sup> ECNP Immunoneuropsychiatry
- > July 17<sup>th</sup> July 29<sup>th</sup> Introduction to experimental neuroscience
- > September 18<sup>th</sup> -September 22<sup>nd</sup> Internet of things

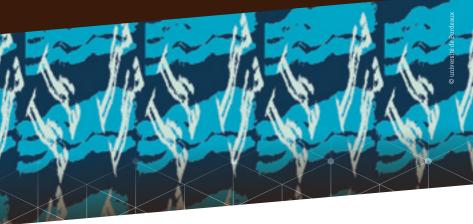
Public health, Economics, Political science



Africa's populations by 2050: challenges and potentials

### May 30<sup>th</sup> – June 2<sup>nd</sup>, 2023 In English

This online summer school is open to graduate and doctoral students as well as professionals interested in the unique challenges and opportunities facing populations in Africa in the coming decades. These challenges include: rapid urbanisation within a context of limited economic growth, increasing vulnerability to climate change, uncontrolled road traffic and the expansion of polluting industries. Course content provides participants with a critical and complementary analysis of the evolution of population in Africa over the past 20 years, as well as the challenges and opportunities for the next 30 years in the context of the Sustainable Development Goals agenda.





bss-africanstudies.u-bordeaux.fr



Electrical engineering, Computer science, Applied mathematics

# Space: convergence of new technologies

### June 5<sup>th</sup> – June 9<sup>th</sup>, 2023 In English

This summer school is designed for graduate students, engineers and doctoral students with an interest in the latest advances and applications of new space technologies, as well as professionals new to the field or working in companies wanting to discover space.

Course content will address strategies to introduce notions of sustainability into the development and deployment of new space technologies, and more specifically how these technologies may serve planet Earth.



bss-space.u-bordeaux.fr



Law, Economics, Political science

Conflits et interventions internationales

### June 5<sup>th</sup> – June 10<sup>th</sup>, 2023 In French

This summer school is open to graduate and doctoral students as well as post-doctoral fellows and professionals interested in the theme of international conflicts and interventions. Course content will allow participants to understand this subject through a multidisciplinary approach, combining law, political science, international affairs and economics. The programme covers the analysis of different issues related to the cycle of international interventions, and will enable participants to acquire a synthetic and in-depth knowledge of the tools for analysing conflicts and interventions, thus allowing them to reflect on the major controversies that these interventions raise.





bss-conflits.u-bordeaux.fr

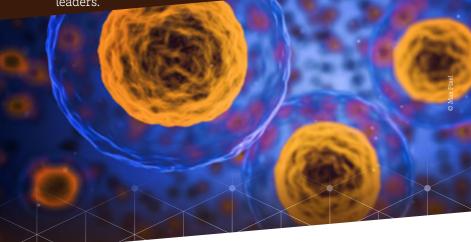
Philosophy, Life sciences, Medicine



Philosophy in biology and medicine

#### June 12<sup>th</sup> – June 16<sup>th</sup>, 2023 In English

This summer school is open to graduate and doctoral students as well as post-doctoral fellows from the fields of philosophy, life sciences and medicine. Participants will learn to use interdisciplinary methods to address conceptual issues in scientific research. Course leaders will be present to highlight practical examples of interdisciplinary partnerships from their career, and to advise and interact with participants throughout the week. The programme will also include different formats such as group work, 'speed dating' sessions and individual discussions, designed to further interactions between participants and course leaders.





bss-philinbiomed.u-bordeaux.fr



#### Cardiology

## Percutaneous interventions in congenital heart diseases

#### June 14<sup>th</sup> – June 16<sup>th</sup>, 2023 In English

This summer school, dedicated to congenital heart diseases and percutaneous therapies, is open to international science and medical students, engineers and experienced researchers wishing to improve their background knowledge. Course content offers intensive practical classes about the technological aspects of CHD transcatheter interventions, from innovative concepts to clinical practice, including all aspects of device development. Participants will meet with world leading experts in transcatheter interventions, imaging and biomaterials, as well as industrial stakeholders. They will also discover and use cutting-edge technologies and equipment.





Deep learning, Neuromorphic computing, Natural language processing

# Energy efficient embedded artificial intelligence

#### June 19<sup>th</sup> – June 23<sup>rd</sup>, 2023 In English

This summer school is open to second year Master students, doctoral students, post-doctoral fellows, researchers and professionals with an interest in embedded artificial intelligence, deep learning, neuromorphic computing, natural language processing, spintronics and 6G communications. Course content will address the consequent skill gap between embedded technology and deep learning applications, and will equip participants with the interdisciplinary knowledge and skills needed to develop innovative circuit architectures and execute data intensive applications on resource-constrained devices.





bss-e3ai.u-bordeaux.fr



Cardiology

Cardiac electrophysiology

#### June 26<sup>th</sup> – June 30<sup>th</sup>, 2023 In English

This summer school is dedicated to the study of fundamental cardiac electrophysiology. It is open to international science and medical students, engineers and experienced researchers wishing to improve their background knowledge.

Course content offers intensive theoretical and practical sessions concerning all aspects of cardiac electrophysiology, from the molecular level to pre-clinical investigations and patient care.





bss-cardiac-electrophysiology.u-bordeaux.fr



Law, Computer science, Social and human sciences

Digital humanities in theory and practice: legal history, political science, economics

June 26<sup>th</sup> – June 30<sup>th</sup>, 2023 In English

This summer school is open to graduate and doctoral students as well as post-doctoral fellows and researchers with an interest in law, computer science, social and human sciences.

Course content will introduce participants to the highly innovative and dynamic scientific field of digital legal humanities, with a focus on how these methods are implemented in law, political science, economics and history.







Life sciences

French agriculture in New Aquitaine: strategies to face climate change

### July 16<sup>th</sup> – July 28<sup>th</sup>, 2023 In English

This summer school provides participants with scientific insight regarding French agricultural challenges, with a focus on strategies to improve agricultural sustainability in order to address environmental issues such as climate change and food security. It is open to third year Bachelor students as well as first and second year Master students with a background in biology.





ww<sup>,</sup> bss-frenchagri.u-bordeaux.fr

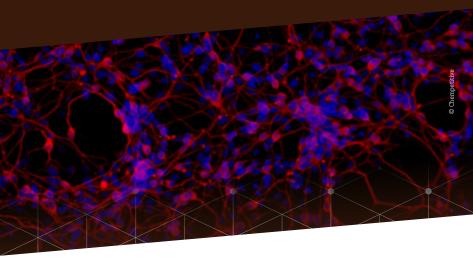
Neuroscience



### ECNP Immuno-neuropsychiatry

### July 17<sup>th</sup> – July 19<sup>th</sup>, 2023 In English

This interdisciplinary summer school is open to graduate students, doctoral and post-doctoral researchers from the fields of psychiatry, psychology, biology and medicine. Course content focuses on dimensional approaches in psychiatry, preclinical models and methods to measure immune markers. Lectures on hot topics in immunopsychiatry will be given by internationally renowned scientists from the field.





bss-immunoneuropsychiatry.u-bordeaux.fr

Neuroscience



Introduction to experimental neuroscience

### July 17<sup>th</sup> – July 29<sup>th</sup>, 2023 In English

This summer school offers participants the unique opportunity to discover methods and concepts in neuroscience research through hands-on training within the premises of the Bordeaux School of Neuroscience. Graduate and doctoral students from various disciplines will follow case-based teaching by taking part in miniprojects supervised by experienced doctoral students and international experts in neuroscience.





bss-neurosciences.u-bordeaux.fr



Electrical engineering, Computer science, Applied mathematics

## Internet of things

### Sept. 18<sup>th</sup> - Sept. 22<sup>nd</sup>, 2023 In English

This summer school is designed for graduate and doctoral students in the fields of electrical engineering, computer science, data science and applied mathematics, with an interest in the topic of the Internet of Things and its environmental and societal impacts.

Course content covers a wide scope of themes, from radio communications to data processing and artificial intelligence, and their applications in e-health, energy harvesting, intelligent transport systems and more. Hands-on tutored workshops complement the theoretical sessions, enabling participants to design, create and programme a connected object of their choice.

