TEL AVIV **YOUTH** UNIVERSITY

TEL AVIV UNIVERSITY
The Lowy International School

TEL AVIV UNIVERSITY INVITES YOU TO A
UNIQUE ONLINE LEARNING EXPERIENCE!

Brain, Medicine, and AI: The Future of Science

This course explores the intersection of neuroscience, medicine, and artificial intelligence. We'll uncover basic brain concepts, debunk myths, and see how this knowledge is applied in medicine and gaming. Learn about cutting-edge medical technologies and their impact on humanity, and dive into AI's role in understanding and interacting with the brain.

No prior knowledge required—
just a curious mind!

The course will take place via Zoom
from 16:00 pm-17:10 pm HKT
on the following dates:

Wednesday, March 5, 2025
Wednesday, March 12, 2025
Wednesday, March 19, 2025
Wednesday, March 26, 2025
Wednesday, April 2, 2025

Course fee: 3200 HKD

For more information and registration, please contact:
Mr Elvis Chu, Programme Director, Inspire Education Association .
Tel: 3489-2220 | Email: info@inspire-education.org. Or Mrs Michal Shtorch, Asian Representative of TAU University | Email: michalms@tauex.tau.ac.il administration

Collaborative Organisation: 啟賢教育協會 Inspire Education Association

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FULL AGENDA:

DAY 1

SEEING INTO THE BRAIN | BY RONNIE KRUPNIC PHD CANDIDATE

Brain research faces a fundamental challenge: unlike other sciences, we can't simply experiment on a living human brain. Neuroscientists must find ways to study and understand a complex organ without direct access. To tackle this, researchers use various methods, such as studying animal models, examining individuals who have undergone brain surgery for medical reasons, and developing advanced technologies to scan the brain non-invasively. We'll explore these innovative tools that allow us to peer into the brain without ever physically touching it—well, almost.

DAY 2

AI AND PSYCHOLOGY: NAVIGATING THE INTERSECTION OF EMOTION AND THOUGHT | BY PSYCHOLOGIST YOTAM COMAN

Machines have become essential partners in our everyday lives, enhancing our ability to perform technical tasks and revolutionizing fields like medicine. From diagnosing diseases to developing cancer treatments and analyzing complex images, their contributions have been invaluable. But can machines ever truly delve into the intricacies of the human mind? Can AI replicate the nuanced work of a psychologist? Will patients feel comfortable confiding in machines, seeking personal guidance and support from a non-human source? And, perhaps most critically, can a machine ever truly understand or exhibit empathy? This lecture will explore these thought-provoking questions, investigating the evolving intersection of technology and psychology. By reflecting on the past, present, and future, we'll consider whether AI holds the potential to reshape the landscape of emotional and psychological care.

DAY 3

BEYOND ALL IMAGINATION: MEDICINE IN THE 21st CENTURY | BY DR. YAIR POZNIAK

Your life is about to change. The life of the entire human race is about to change. The 21st century brings innovative and groundbreaking medical technologies that bring science fiction closer to the real world than ever before. We'll discuss some of the technological and scientific developments that characterize medicine in the 21st century, and we will try to analyze their far-reaching impact on the human race: Are we allowed to interfere with the laws of natural selection? Is it possible to transplant 'upgraded' organs? And where do we draw the line between being human and being... or even something else?

DAY 4

AI AND THE BRAIN | BY ASAF NUHI M.Sc

Discover how artificial intelligence (AI) and neuroscience come together to shape the future! We'll start with the basics of AI —how it works and why it's so important. Then, dive into how AI helps us understand the brain, from learning and pattern recognition to decision-making. Plus, we'll explore how AI is transforming healthcare and research, including the cool potential of Brain-Computer Interfaces.

DAY 5

MACHINE-BRAIN INTERFACES - CAN SCIENTISTS READ OUR MIND? | BY RONNIE KRUPNIC PhD CANDIDATE

Science fiction often imagines a future where we can read thoughts, implant memories, and communicate telepathically. But the truth is, many of these ideas are no longer just fantasy—they're grounded in real scientific advancements. In this lecture, we'll explore the cutting-edge technologies that are enabling us to connect the brain to computers. We'll delve into how these methods work, what they can achieve, and, just as importantly, the challenges and limitations we face as we move from science fiction to reality.

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