UNIVERSITI SAINS MALAYSIA

APEX™

50 YEARS OF LEADING KNOWLEDGE FOR CHANGE

1969–2019 USM UNIVERSITI SAINS MALAYSIA WE LEAD

MENANTAPKAN SAINS NEURO

ASEAN	University	World Rank
1	NANYANG TECHNOLOGICAL UNIVERSITY	11
2	NATIONAL UNIVERSITY OF SINGAPORE	11
3	UNIVERSITI MALAYA	70
4	UNIVERSITI PUTRA MALAYSIA	159
5	UNIVERSITI KEBANGSAAN MALAYSIA	160
6	UNIVERSITI SAINS MALAYSIA	165
7	UNIVERSITI TEKNOLOGI MALAYSIA	217
8	CHULALONGKORN UNIVERSITY	247
9	UNIVERSITAS INDONESIA	296
10	UNIVERSITI BRUNEI DARUSSALAM	298
11	MAHIDOL UNIVERSITY	314
12	UNIVERSITAS GADJAH MADA	320
13	INSTITUT TEKNOLOGI BANDUNG	331
14	UNIVERSITY OF THE PHILIPPINES	356
15	UNIVERSITI TEKNOLOGI BRUNEI	379
16	UCSI UNIVERSITY	442
17	SINGAPORE MANAGEMENT UNIVERSITY	477
18	UNIVERSITI TEKNOLOGI PETRONAS	482

HEARTIEST CONGRATULATIONS

USM RANKED #49 IN TIMES HIGHER EDUCATION UNIVERSITY IMPACT RANKINGS 2019

THE WORLD UNIVERSITY RANKINGS

PROGRAMME MASTER OF COGNITIVE NEUROSCIENCES

UNIVERSITI SAINS MALAYSIA

USM RISES 42 SPOTS IN WORLD RANKINGS #165 QS WORLD UNIVERSITY RANKINGS 2020

OVERVIEW OF THE PROGRAMME

This programme AIMS to produce graduates who:

- Can work in a wide range of career opportunity such as in neurobusiness, neuromarketing, computational neurosciences, social neurosciences, neurolinguistics, neuroeducation, neurobehaviors, etc. at various institutions/companies
- Are able to continue their study at the doctorate level in the inter-disciplinary of arts and sciences.

CONTACT US

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FURTHER INFO :

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URL:
http://www.admissions.usm.my/index.php/postgraduate/postgraduate-programme/mdh/coursework-mdh/791-master-of-cognitive-neurosciences

HOW TO APPLY:

URL:
http://onlineips.usm.my/admission/

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COGNITIVE NEURO SCIENCES

Exploring the Brain Signals

NEED FOR COGNITIVE NEUROSCIENCE EXPERTS IN MALAYSIA

A recent article (Sumari, Idris, & Abdullah, 2017) and a report (Academy of Sciences Malaysia, 2017) indicated that Malaysia will require a minimum of 10 cognitive neuroscience experts per 100,000 labour force workers by 2050.

However, at present, Malaysia only has 150 experts in the field (including postgraduates) (Academy of Sciences Malaysia, 2017; Cheah et al., 2017), which is not enough.

The lack of experts in this area may be because a limited number of universities offer cognitive neuroscience programmes in Malaysia at a bachelor's degree and postgraduate studies level.

Source: Al Abd Hamid, JM Abdullah& N Fauzan. 2018. The Future of Cognitive Neuroscience. International Journal of Engineering & Technology 7 (3.22) (2018) 1-4.

EMERGENCE OF NEUROTECHNOLOGY TOWARDS 2050

- Rapid advances in neurotechnology have shown great potential in developing cognitive neuroscience (United Nations, 2016).
- The growth of cognitive neuroscience can open up opportunities and expansion in many sectors (United Nations, 2016).
- Cognitive neuroscience represents a way for developing Malaysia to foster economic development, improve levels of knowledge and education, intensify healthcare, enhance people's well-being and expand network collaboration (Academy of Sciences Malaysia, 2017).
- Apart from the need for a sufficient number of experts in the field, foresight and strategic planning are required to implement the SDGs and STI agenda successfully.
- Therefore, the emphasis of recent foresight planning has been on neurotechnology and cognitive neuroscience, including clinical neuroscience (e.g. treatment of neurological disorders), brain fingerprinting, computational neuroscience, neuromarketing and others.

Source: Al Abd Hamid, JM Abdullah& N Fauzan. 2018. The Future of Cognitive Neuroscience. International Journal of Engineering & Technology 7 (3.22) (2018) 1-4

ADMISSION REQUIREMENTS

- A Bachelor's degree in any field of arts and sciences from recognised universities with minimum CGPA 3.00 out of 4.00
- *Eligible candidates who qualify for admission will be called for pre-entry interview to complete the application process (if needed)*

PROGRAMME LOCATION

1.Teaching and Learning: Core and elective subjects/courses
- USM SAINS@KL - Wisma Sejarah, Jalan Tun Razak, Kuala Lumpur
- Year 1

2. Research Project
- USM Main Campus (Penang) or/and
- USM Health Campus (Kubang Kerian, Kelantan) or/and
- USM IPPT (Bertam, Penang)
- USM SAINS@KL - Wisma Sejarah, Jalan Tun Razak, Kuala Lumpur
- Location depends on the chosen research topic
- Year 2

WHO CAN APPLY?

- This programme is designed to ensure Malaysia has a sufficient number of experts in the field by 2050.
- The cognitive neuroscience program is not limited to candidates with a bachelor's degree in neuroscience or medical science; it is open to candidates with bachelor's degrees in any field of arts and sciences from recognised universities.
- Students can choose their speciality from the elective courses offered, that is, from neurobusiness, neuromarketing, computational neurosciences, social neurosciences, neurolinguistics, neuroeducation and neurobehaviors.

OVERVIEW CORE COURSES & RESEARCH PROJECT

- Understanding of cognitive neurosciences – e.g. how neural substrates affect mental process
- Extensive knowledge in the field of social neurosciences – e.g. emotional-social interaction, motivation process, attitude process, social cognition etc.
- Functional neuroanatomy – structures, tracts and connections between different parts of the brain and its relationship to the function of the mind and behaviour
- Transferable skills - to develop a dynamic, motivated, interpersonal and growing personalities & to promote communication, leadership, teamwork and problem solving skills
- Understand and appreciate the ethical and professional codes of practice
- Statistics – solve Scientifics enquiries using appropriate statistical methods
- Exposure to neuroimaging methods – MRI, fMRI, EEG, MEG & PET
- Research Project
- Research methodology and protocol development

FURTHER INFO:

Scan me

HOW TO APPLY:

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OVERVIEW ELECTIVE COURSES

- Basic computational methods for understanding the nervous system and its function
- Cognitive neurolinguistics – differentiate the cognitive function of language and processing using i.e., neuropsychology assessment, neurotechnology
- Understand the various biological and molecular aspects of the conditions – e.g. genetic modules relevant to cognition and brain function mechanism.
- Testing and assessment in cognitive neuroscience – e.g. basic technique in various domains of cognitive functioning/neuropsychology assessment, experimental finding according to the standard procedure
- Basic and applied neuroscience association with consciousness, sleep, perception and attention
- Brain and learning – integrate neuroscience and education
- Learn how to assess the animal cognition and behaviours and data analysis
- Learn the principles, theories, concepts, interpretation and issues in neuromarketing and consumers
- Plasticity and memory of the human brain