

**NAME OF THE PROGRAMME: MASTER OF SCIENCE
(COMPUTER SCIENCE)**

Programme Type	Research
Status	Proposal
Start Date	August and January
Module	SS-5000
Description	<p>Masters of Science in Computer Science in the Mathematical and Computing Sciences Group, Faculty of Science (FOS), is a programme that fosters pure and applied research in different areas of Computer Science. MSc by Research in Computer Science includes the elaboration of short projects in a broad range of pure and applied research topics. The research projects must be original, incorporate modern techniques and methods, and contribute to the advancements of the fields of Computer Science.</p> <p>Candidates will perform a research project under the supervision of Computer Science staff members.</p>
Research Facilities	The Mathematical and Computing Sciences Group prefers using high quality open source tools.
Degree Requirements	A written Thesis is judged acceptable by the Board of Examiners. The Thesis, based on the findings of an approved original research investigation, shall not normally exceed 60,000 words. As stipulated in the relevant UBD regulations, the Examiners may subject a candidate to an oral examination or any other test they think necessary to assess the acceptability of the Thesis.
Entry Requirements	At least a Second Class (or equivalent) honours Bachelor's degree in Computer Science from a recognised University. Shortlisted applicants may be interviewed on a case by case basis.
Language Requirements	Relevant English language requirement stipulated by UBD.

Programme Details

Aims and Scope	<p>The MSc Programme in Computer Science aims to make scientists with high level specialised training, in order to cover the increased needs of Industry in related aspects. Also, students wishing to continue their studies at a PhD level, will be able to prepare for the conduction of a PhD research on relevant topics.</p> <p>The scope of the Programme is to provide students the necessary specific scientific information, as well as to train them to develop their skills and analytical capabilities.</p>
Structure	Students conduct an approved research project, with the supervision of one or more staff members. Upon completion of their research, they submit a Thesis, which normally does not exceed 60,000 words.

Language	The Thesis will be written in English; any potential courses will be given in English, too.			
Duration of Programme	Full-Time: minimum 12 months, maximum 24 months		Part-Time: minimum 24 months, maximum 48 months	
Areas of Research/Specialisation	<ul style="list-style-type: none"> • Intelligent Healthcare Systems • Wireless Sensor Integration and Fusion • Motion Capture and Reconstruction • Brain Machine Interface • Virtual Interfacing Technologies • Intelligent eLearning and web-based applications • Biologically-inspired Robotics: Swarm robotics, Collective Decision Making, Animal vs. Animal • Human-Robot Interaction: Human Safety in Human-Robot Cooperation, Human-Robot Swarm Interaction • Large-Scale Autonomous Systems: Modeling and Control of Dynamical Systems including Manipulators, Mobile Robots, Underwater and Aerial Robots • Modern Artificial Intelligence: Modular Robotics, Reconfigurable Building Blocks, Modular Sensor Networks, Tangible Games • Problem Based Learning: ICT-based PBL and Multicultural PBL • Compilers • Cryptography and computer security • Open source implementations • Graphics and visualisation • Database design and implementation • Server security • High performance computing • Mobile programming • Data mining: Cluster analysis, fuzzy clustering, biomedical or clinical informatics • Artificial intelligence: Applying heuristics in data mining • Personal robots • Ambient intelligence <p>More areas will be provided upon arrival of new staff</p>			
Attendance Type	Full-Time/Part-Time			
Period of Candidature	Full-Time: 12-24 months		Part-Time: 24-48 months	
Assessment	Assessment includes examination of the Thesis by internal and external examiners. As stipulated in the relevant UBD regulations the examiners may subject a candidate to an oral examination or any other test they think necessary to assess the acceptability of the Thesis. Periodic assessment of the progress of the candidate is carried out as stipulated in the relevant UBD regulations.			
Demand	Applicants are expected to join the Programme from Brunei Darussalam and overseas. The number of applicants is expected to increase in the future, as the Programme develops a track record.			
Future Development	The Programme is expected to attract students and to develop according to the demands of the community and the industry. New			

	supervisors that will join Computer Science in UBD will also add new disciplines of research. Increasing number of interdisciplinary and transdisciplinary research is expected to be developed.
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Major Areas	Robotics, Artificial Intelligence, Computer Security, Web and Mobile Applications
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For More Information

Contact	Programme Leader in Mathematical and Computing Sciences, Graduate and Research, Faculty of Science (FOS), UBD
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