

Department of Metallurgy

Faculty of Engineering and the Built Environment



Master of Engineering in Sustainable Advanced Materials (Coursework and Research)

PROGRAMME DESCRIPTION

The Master of Engineering in Sustainable Advanced Materials (NQF 9), offered by the Department of Engineering Metallurgy at the University of Johannesburg, is a 12-month programme for full-time students or a 2-year programme for part-time students. This programme seamlessly integrates research and coursework to provide a comprehensive educational experience, aimed at developing the next generation of skilled material engineers. Graduates of this programme will be well-equipped to apply advanced materials technologies across a range of fields, including engineering, bio-medical, environmental, and science.

PROGRAMME STRUCTURE

The programme combines research and coursework in equal measure, with 50% dedicated to each. It follows a structured block format that fosters focused learning, rapid feedback, and a balanced study life. The curriculum is organised into four blocks, each with specialised modules. Complementing coursework is a substantial research component, where students undertake a research project or mini-dissertation.

Block 1	<i>Sustainable Advanced and Nanoengineered Materials Technology</i>	February – March
Block 2	<i>Integrated Computational Materials Engineering</i>	April – May
Block 3	<i>Sustainable Electrochemical Energy Materials and Technologies</i>	June – July
Block 4	<i>Advanced Materials Characterisation and Analytical Techniques</i>	August – September
	<i>Research Project / Mini Dissertation</i>	February – December

The modules will be delivered by international leading academics who drive the latest advances in sustainable advanced materials. You will benefit from industrial visits and the use of different latest research equipment and computational tools, helping you place taught material into a practical context.

ADMISSION REQUIREMENTS

Open to graduates (NQF 8) of Materials Engineering, Metallurgical Engineering, Mechanical Engineering, Chemical Engineering and Physical Sciences with an interest in Advanced Materials.

HOW TO APPLY

Please visit <https://www.uj.ac.za/admission-aid/postgraduate/>

CONTACT INFORMATION

For further information and enquiries relating to this programme, please contact Nurse Nyelisani on nursen@uj.ac.za.

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