

APM Academic

ACCREDITATION

CASE STUDY



Introduction

Swansea University has been making a difference since King George V laid the foundation stone in 1920. That year, 89 students (including eight women) enrolled. Today there are 18,000 students and 2,500 staff across two campuses along the south west coast of Wales.

This research-led university is ranked among the top in the UK. It aims to provide an environment of excellence, with research that is world-leading, globally collaborative and internationally recognised.

With students and staff from around the world, the multicultural community provides a global perspective, enabling those who join to develop the skills and knowledge to set them on successful and enriching

careers. The university also aims to drive economic growth, foster prosperity and enrich the community and cultural life of Wales and its citizens.

In 2018, it was voted Welsh University of the Year for the second consecutive year and was runner-up in the Times Higher Education Awards UK University of the Year. Its commitment to research with real-world benefits has seen it ranked in the top 30 research universities in the Research Excellence Framework league table.

Swansea has also achieved the highest gold rating in the national Teaching Excellence and Student Outcomes Framework (TEF) and is ranked in the top five for student satisfaction in the 2018 National Student Survey.

Notable alumni include the late Colin Pillinger, leader of the Beagle 2 Mars lander project; Lyn Evans, project leader for the Large Hadron Collider and rock musicians Richie Edwards and Nicky Wire of the Manic Street Preachers. Welsh rugby internationals Alun Wyn Jones and Rhys Priestland, Olympic swimmer Jazmin Carlin and Paralympic gold medal swimmer Liz Johnson are among the sporting stars who studied at Swansea.

Swansea University has eight colleges, including the College of Engineering which has developed a specific project management module to meet the demands of engineering careers and research in the 21st century.

Developing future potential

The university's College of Engineering boasts an international reputation for cutting-edge research. It collaborates closely across business and industry from multinational companies to public and third sector organisations, providing research and employment opportunities for students.

The college delivers a range of undergraduate and postgraduate programmes in traditional and emerging engineering disciplines. All courses are designed for students to develop the potential to become future leaders and champions of industry or to be equipped to meet the challenges and opportunities for a career in research.

Each course is accredited by the relevant professional body, and project management is an essential element of that accreditation criteria. As a result, all programmes have key project management concepts embedded into the curriculum.

Project management is covered in depth at Masters level aerospace, communications, electronic and electrical, materials, mechanical and medical engineering, as well as nanoscience to nanotechnology. This is delivered through the dedicated Strategic Project Planning module EG-M85, which has received APM academic accreditation. EG-M85 is also offered to visiting international students.

Integral to the commitment to provide high-quality learning and teaching is aligning course programmes against the UK Standard for Professional Engineering Competence (UK-SPEC) set by the Engineering Council. One of the criteria for engineering Masters degrees is to ensure that students are equipped with skills such as understanding the different roles within a team and the ability to exercise initiative and personal responsibility.

EG-M85 was developed by the academic staff initially to meet the UK-SPEC criteria. It has further developed over the years through face-to-face dialogue with the Major Projects and the College of Engineering's employability teams, together with input and ideas from business and industry.

Said Professor Cris Arnold, deputy head of the College of Engineering and director of learning and teaching: "Engineering degrees involve more than just technical aspects. Professional engineers need to have a wide range of abilities and skills in order to succeed in their career. Project management is one vital aspect of this."

Added Associate Professor Gavin Bunting, director of employability and regional engagement, College of Engineering: "APM accreditation provides assurance for our students and industry that our MEng/MSc programmes effectively equip our graduates with the skills and knowledge to manage complex and challenging engineering projects."



The professional approach

As a corporate affiliate of APM, Swansea University has long adopted, embedded and promoted a professional approach to managing its own projects.

"The benefits of APM membership started to emerge in such a way as to raise the profile of the university among the project management community," said module coordinator Dr Kiyohide Wada, senior lecturer at the College of Engineering and a full member of APM.

"Based on this background, it was natural to align the course content, delivery and assessment to the APM Body of Knowledge 6th edition. This will help students to enhance their understanding and competency to deal with a project as project professionals."



Dr Kiyohide Wada

The 12-week module culminates in an examination leading to 50 per cent of the overall assessment. The remaining 50 per cent is assessed by the coursework project. As well as the courses on which it is mandated, it is also offered as an option choice on others.

The module is delivered through a combination of lectures, real-life case studies presented by guest speakers, group work, presentations and project briefing and update sessions.

The syllabus follows APM recommendations and includes:

- structure of organisations and projects;
- project life cycle;
- project contexts and environments;
- governance and structured methodologies;
- communication;
- leadership and teamwork;
- planning for success;
- scope management;
- schedule and resource management;
- procurement;
- project risk management and issue management;
- project quality management.

Lectures cover the fundamentals of strategy and project management, including vision, shaping the future processes, methods, tools and techniques. The practical group work sessions allow students to grasp and understand the techniques and effectively apply them to create a high performance team. The information on APM membership, qualifications and events is captured and accessible to the students through the university's intranet.

At the end of the course students should be able to demonstrate a comprehensive knowledge and understanding of project management and the role of the project manager, recognise and define the key characteristics and components of a project, understand the advantages and disadvantages associated with the management of both small and large projects, and have an appreciation of the strategic tools and techniques available.



Student story

Ana Luisa Almeida

Trainee engineer at Kordsa

"Taking the EG-M85 module during my exchange time at Swansea University was a gift. It was not just a module, it was an unforgettable experience. Besides the opportunity of learning more about project management, I worked with a multicultural group of colleagues from Brazil, England, India, Italy and Wales.

"As a chemical engineering professional, the experiences were valuable when I returned to Brazil and started to work in a multinational industry, where I was managed by someone from other country.

"The practical approach of this module is very effective – applying project management tools and 'selling' your idea in a report and presentation, as we need to do in real life. I have good memories about this experience and I am very thankful to my group colleagues, Dr Wada and Swansea University. This experience was a life-changer for me and guided me to a very promising career path."

The learning outcomes are not only common to all the mandated engineering disciplines, they also combine to equip students with a transferable set of skills essential for a future career in various engineering and management sectors.

The college is committed to ensuring that every student is provided with the best level of employability support from day one of their degree. Close ties and collaboration with industry offer students opportunities to develop their employability skills through networking with employers, industry talks, mock interviews, site visits, and short and long term placements and internships.

Swansea Employability Academy (SEA) also offers bespoke careers advice to current students and alumni up to two years after graduation. This includes encouraging them to adopt continuing professional development once they have graduated.



Student story

Richard Passmore

Engineering installation manager at MII Engineering Ltd

"As an engineer within the steel-making industry I had built up a good knowledge of the practical elements of project management. The MSc was appealing due to specific modules, EG-M85 being one of them. It has helped to provide me with further theoretical knowledge that has allowed me to have a valuable transferable skill set and helped me develop into a more rounded project manager. The accreditation of the course and module also provide benefit as they demonstrate competence in areas of criteria for membership of industry standard institutions.

"Working on turnkey projects for blue-chip companies in the engineering sector demands a high level of professionalism and customer service. The in-depth knowledge gained, alongside the taught models and frameworks and how to apply them in a project environment has directly influenced how I plan and execute successful projects.



Student story

Jack Townsend

Engineering doctorate candidate

"This module has successfully fostered in me an understanding and appreciation of management in the context of engineering projects. In particular, it has enabled me to drive the design principles discovered in my research into the overall product design cycle as I collaborate with industry.

"My post-graduate role has been much more industry-focused than is typical, and this course has provided me the tools successfully navigate and contribute to the project in a way I do not think I could have otherwise. These skills will be invaluable as I continue to collaborate with industry on the design and implementation of the results of my technical work."



|| RAL Space employs more than 260 highly skilled staff, in the heart of the Harwell Space Cluster and at the Chilbolton Observatory.

A lot of the work we do is for the European Space Agency and so we must design, build, test and manage our instrumentation to the standards that have been written by the European Co-operation for Space Standardization. These include management standards which describe the processes and procedures to which all projects must adhere. It is, therefore, of significant benefit to RAL Space to have high quality skills that are obtained through an accredited course. We believe that the industry-academia collaboration through case study has added value to the module by narrowing the gap between theory and practice to execute project management in real-world situations."

Emma Johnson

Senior project manager, RAL Space



|| The Science and Technology Facilities Council (STFC) recruits around 50 graduates a year into technical roles. Recruiting technical graduates who already possess project management skills ensures the graduate becomes embedded in the team much more quickly as well as adding to the professionalism and capability of the team."

Helen Johnson

Head of apprenticeship & graduate schemes, STFC

APM and the College of Engineering, Swansea University

The University of Swansea is a corporate affiliate of APM. Its major projects team works closely with the association to align practice with professional standards. The project management course at the College of Engineering is taught by an academic staff who are full members of the association or are Chartered Project Professionals.

The postgraduate Strategic Project Planning module EG-M85 has been fully mapped to the *APM Body of Knowledge 6th edition* and embraces the *APM Five Dimensions of Professionalism*, which students are encouraged to adopt in their future careers.

The college's employability team actively sponsors the top engineering students to take the APM Project Fundamentals Qualification (PFQ). Students are encouraged to become full members of the association to build real confidence and add strength to their CVs.

The college also recently hosted the APM event 'Project managing vision, spirit and drive – the Computational Foundry story' at the Bay Campus.



Professor Stephen Brown



"The College of Engineering at Swansea University is very proud to have achieved APM academic accreditation for its Master's Project Management module. Project Management skills are vital to our graduates once they enter the professional workspace and this is strongly endorsed by the engineering professional institutions and employers. Knowing how to deliver projects on time and within budget using a structured and consistent project management framework greatly enhances the employability of our graduates and we are very grateful to the APM for certification of our course."

Professor Stephen Brown
Head of the College of Engineering

Association for Project Management

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FIVEDimensions of Professionalism

APM Corporate Accreditation

APM Corporate Accreditation will help you stand out as an exemplar in the development of project management professionals. It provides assurances to your customers and suppliers and allows you to attract and retain the best project management talent in the country.

APM Corporate Accreditation recognises the commitment of organisations and professional development services to the defined APM FIVE Dimensions of Professionalism, each of which is supported by an APM standard:

Breadth

The *APM Body of Knowledge* defines the knowledge needed to manage any kind of project. It underpins many project management standards and methods including the National Occupational Standard in Project Management.

Depth

The *APM Competence Framework* provides a guide to project management competences. It is part of your professional toolkit; mapping levels of knowledge and experience to help you progress your skills and abilities.

Achievement

APM qualifications take your career in new and exciting directions. They are recognised across the profession and aligned with IPMA's 4 level Certification Program.

Commitment

Continuing Professional Development helps develop your project management practice. A targeted development plan will enhance your project management career.

Accountability

The APM Code of Professional Conduct outlines the ethical practice expected of a professional. Becoming an APM member shows your commitment to the Code and sets you apart from others.