

# ACCREDITATION

## CASE STUDY



### Introduction

Cranfield's mission to transform knowledge into ingenious solutions places it at the forefront of some of the world's most practical, cutting-edge projects.

Founded in 1946, the university is the only wholly postgraduate higher education institute in the UK, specialising in science, technology and management. It has a global reputation for teaching and research, industrial-scale facilities and for its links with some of the most recognised names in industry and commerce.

The university's School of Management has been established for more than 40 years with a mission to innovate and improve the practice of management around the world. From unique cabin evacuation research to

finding life on Mars, Cranfield's focus is squarely on the application of its research. This research drives its masters, doctorate and professional development courses, which are constantly monitored and updated by industry advisory panels to ensure they meet the needs of employers.

In 2012, it was ranked in 76th in the annual list of the UK's top 500 Business Superbrands, ahead of several other leading business schools. It consistently performs well in the major school and programme specific rankings and is one of the few business schools across the world to hold accreditation from European Quality Improvement System (EQUIS), the Association to Advance Collegiate Schools of Business (AACSB) and the UK Association of MBAs (AMBA).

## On course for the 21st century

The school's Programme and Project Management (PPM) group and the International Centre for Programme Management is actively engaged in and contributes to the knowledge and application of the disciplines.

In 2007, the UK Ministry of Defence (MoD) recognised the need to develop its project and programme management community and turned to Cranfield to develop a specialist MSc programme for senior officers and MoD project and programme managers.

This followed Cranfield's involvement in EPSRC's Rethinking Project Management research project and the fact that the school was already a preferred MoD provider, running the Defence Academy at Shrivenham, Wiltshire.

The MSc programme was not to be confined to the Armed Forces and those working within in the Ministry. The MoD and Cranfield wanted to learn from the private sector too, so input was sought from industry stakeholders to ensure the course was relevant and applied beyond the MoD.

As a result the part-time, residential Masters PPM course brings together mature and experienced managers from business, the civil service and the military in a diverse and challenging environment.

It balances hard concepts, technical project know-how and management principles, designed to question and challenge traditional project management thinking. Students also learn how to deal with behavioural and rational effects on project decisions and performance.

"Our primary aim is to develop proactive professionals, who will look at programme and project management from a 21st century perspective," said course director Dr Liz Lee-Kelley.



Dr Liz Lee-Kelley.

## Masters of professionalism and practice

Staffed by industry experienced specialist tutors and boosted by visiting lecturers and leading academic lights in the profession, the MSc programme is built around a series of short residential modules to stimulate and challenge, allowing busy project managers to balance work and education and to apply newly acquired knowledge and experience straight back to the workplace. The content and structure of the course map readily across the APM Body of Knowledge.

Current external examiners Professor Rodney Turner, an Honorary Fellow of APM, and Dr Martin Read from Portsmouth University ensure the quality, relevance and currency of the course. Liz Lee-Kelley also keeps a close watch on these issues through student evaluations, visits to corporate sponsors, events and topical research.

Applicants are expected to have been in a management or command position for at least two years, have had relevant experience over five years and hold either a UK honours degree, an equivalent academic or professional qualification or meet Cranfield's own standards for MSc entry.

Typically, those from the services hold the rank of or equivalent to Major and above. MoD civilians are drawn from the higher band grades with many handling projects in excess of £200 million. A third of each cohort comes from senior project or programme managers in industry.

By bringing such a mix of experience together, they can share and maximise their understanding and knowledge, develop new skills and competencies and improve their decision-making and problem solving.

The key aims of the course are to:

- Raise awareness and appreciation of advanced project management practices
- Develop the ability to critically select tools and techniques relevant to their context and be able to provide leadership throughout the project or programme lifecycle
- Enable students to conduct independent and robust research
- Equip them to go on and facilitate the development of future knowledge from practical and ethical perspectives

The programme is in three stages – the Post Graduate Certificate, Post Graduate Diploma and the MSc. Those aiming for the Masters qualification must have passed the first two at 50 per cent or above.

Each module has two workshops each consisting of a residential, two-and-a-half day workshop at the Defence

Academy. Classroom lectures, case study discussions, scenario simulation and role-play are among the aspects, with guest speakers and 'fireside chats' by senior managers and captains of industry prompting lively forums for discussion.

In addition to the syllabus subjects, current hot topics in the world of project and programme management are fed into the programme each year to stimulate debate and discussion.

"Addressing current and individual issues helps students to originate new solutions to previously unsolved problems, embrace uncertainty and appreciate the notion that cross-functional knowledge and strategic vision are vital factors in ensuring success," said Liz.

Students have the opportunity to comment on modules after each workshop and are invited to highlight any additional issues. Feedback routes, external advice and internal recommendations and ideas are discussed at the six-monthly course committee meetings.

Concerns, challenges, opportunities and potential hot topics are also fed in through the annual major stakeholder meeting with the MoD's Head of Profession and PPM Champion, with additional input through the Customer Liaison Panel comprising representatives from the MoD and the private sector.

Early modules are delivered in a traditional way, setting out existing knowledge for review and critique. Later modules emphasise increased situational awareness and the co-production of knowledge.

"This is a major feature of the course and is aligned to APM's Five Dimensions of Professionalism of breadth, depth, achievement, commitment and accountability," explained Liz. "For this to work successfully, high level participation from the students is essential.

"Above all, we want them to value this experience to develop personally and professionally and take enthusiasm and new insights back to the workplace."

## Personal story

Squadron Leader Dr Graem Corfield

Graem Corfield's work on a change programme that transformed an RAF 'problem child' into a record-breaking squadron was a direct result of his MSc PPM studies.

Graem had not completed the course when he instigated the programme while Senior Engineer Officer with XV Squadron. However, he had completed the Risk module and was able to apply that newly acquired knowledge and skills to positive effect.

The squadron was the largest in the RAF with 30 jets flying some 4,000 sorties. His change initiative meant everyone – engineers and aircrew – needed to embrace a totally different approach.

"I was able to take control of all the activities and re-wrote the methodologies from scratch because I could see and explain what was going wrong and why," he said. "We stopped having bad days and by the time the Libyan conflict started we had the crews and aircraft ready to go and undertake an additional task without impacting on other operations.

"Because the MSc modules are in a two-and-a-half day hit, I could use what I had learned straight away and discuss the way in which I had applied it with my tutors. You have a framework to articulate what is going on – and it works."

A Chartered Engineer who also holds a PhD in applied mathematics, Graem was a university academic before joining the RAF. As he progressed through the service, he also studied for his Masters in Defence Administration (MDA) at Cranfield's Defence Academy at Shrivenham.

A posting to the Royal Saudi Air Force to upgrade its fleet of Tornado aircraft required him to undergo a practical project management course. He sat and passed the APMP qualification at the British Consulate in Dhahran.

With his role increasingly involving working closely with industry and taking more responsibility for bigger projects and programmes, he wanted a wider awareness of commercial practice so embarked on the MSc PPM at Cranfield.

"I'm passionate about this, it gives me a set of tools and the confidence to apply them, understanding where they will work and where they won't. I'm now doing work normally allocated at Group Captain level as programme manager for the ATTAC B (Availability Transformation: Tornado Aircraft) contract with BAE Systems for future engineering support across whole RAF Tornado fleet.

"The RAF reaps the benefit of the MSc as it gives value for money by delivering savings and efficiencies. It has also given me a set of skills to carry through my career in the RAF and beyond."

## Personal story

Major Toby Barnes-Taylor, Grenadier Guards (retired) Toby Barnes-Taylor is in no doubt that the MSc contributed to the success of his work on a new hearing protection system, which in turn led to the award of his MBE.

As Chief of Staff at the MoD Individual Capability Group, which procures and supports equipment used by front line troops, he was responsible for introducing an active hearing protection system as an urgent operational requirement. The system allowed soldiers to connect to their radios and retain the ability to hear outside noise, while offering full protection against hearing damage from loud noise.

The timing coincided with his studies for the MSc, which helped him to better understand the needs of all stakeholders from the MoD to the soldiers who would be using the new hearing protection. He developed this concept for his thesis on understanding the social psychology of the user to achieve project acceptance and the greater probability of project success.

"I went through an epiphany," said Toby. "I would return full of enthusiasm from the modules as I could apply what I had learned and my senior officer gave me far greater freedom because he understood that I knew what I was talking about."

His MSc path began when he was appointed as a Trials Officer for Command and Battlespace Management in the Infantry Trials and Development Unit and had to attain the APMP qualification as a prerequisite.

"My brain lit up because I now understood how it all worked and I wanted to take it further. The APMP course tutor, Dr Bill Egginton (a Fellow of APM and now a senior lecturer at Cranfield), suggested the modular masters course.

"It was just superb. My Commanding Officer saw immediate value to the Army and how it would benefit projects going forward."

A Major in the Grenadier Guards, Toby left the Army in 2011 and is now pursuing a whole new civilian career as a consultant on complex projects in the construction and defence industries, including overseeing delivery of internationally branded hotels in Romania and the UK.

**I** I am delighted that Cranfield University's project and programme management Masters programme has been accredited by APM. This accreditation is highly valued by Cranfield School of Management and we intend to demonstrate real value in the professional and management development of APM members through our strong mission of transforming knowledge into action."

Professor Frank M. Horwitz, Director Cranfield School of Management



## Testimonial

"The Cranfield MSc in PPM is a key component of our strategy to develop programme and project managers for the future. I am delighted to see successful graduates gaining experience and moving into key MoD programme and project management posts."

Vic Jenkins, Director ISTAR, MoD.



## Association for Project Management and Cranfield School of Management

Cranfield University is a Higher Education Institute member of APM and many of the organisations that sponsor employees to study for the Cranfield MSc in Programme and Project Management are also corporate members

Academic staff and visiting lecturers and fellows include Honorary Fellows, Fellows and members of APM. Course Director Dr Liz Lee-Kelley is a member of the APM Registered Project Professional standards group and its

Education Network Advisory Group. Dr Bill Egginton, FAPM, is Senior Lecturer and Deputy Course Director. He is an APM Accredited Assessor and a member of the APM People and Portfolio Management Specific Interest Group. Staff at Cranfield have also been involved in reviewing the refresh of the APM BoK.

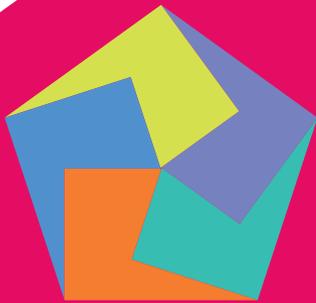
The course content is aligned to the APM Body of Knowledge, the APM Project Risk Analysis and Management (PRAM) Guide and embodies the principles of the APM Five Dimensions of Professionalism.

Alumnus Howard Dickel of BT won the Geoffrey Trimble Award for best project management Masters thesis in 2011.

## Association for Project Management

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### **FIVE**Dimensions 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.