Programme Specification

PCP-2021: Project Controls Professional

LU Foundation Degree in Science awarded by Lancaster University (FHEQ Level 5)

LU Bachelor of Science with Honours (Top-up) awarded by Lancaster University (FHEQ Level 6)

Programme Status: Approved | Version: 1

Introduction

This programme specification provides a summary of the main features of the Project Controls Professional programme and the learning outcomes that you as a student might reasonably be expected to achieve and demonstrate on successful completion of the programme.

Further detailed information related to this programme and the College can be found in the following resources:

- Programme Handbook
- B&FC Student Handbook
- B&FC Admissions Policy
- Work based and placement learning handbook (for foundation degrees)
- Student guide to assessment and feedback

Key Programme Information

Programme Code	PCP-2021
Programme Title	Project Controls Professional
Teaching Institution	Blackpool and The Fylde College
Professional, Statutory and Regulatory Body (PSRB) Accreditation	None
UCAS Code	TBC
Language of Study	English
Version	1
Approval Status	Approved
Approval Date	14 June 2021
JACS Code	Other: Other
Programme Leader	Adrian Bamber

Programme Awards

Award	Award Type	Level	Awarding Body
LU Foundation Degree in Science	Foundation Degree (240 credits)	Level 5	Lancaster University
LU Bachelor of Science with Honours (Top-up)	Honours Top-up Degree (120 credits)	Level 6	Lancaster University

Programme Overview

The Project Controls Foundation Degree and Honours Degree programmes have been co-developed with industry to ensure that programme content fits with current industry practice and is future proofed, providing students with a rich and wholly appropriate higher education experience to support their career aspirations and future project controls professional role. This Project Controls Foundation Degree and Honours Degree is primarily for Aerospace, Military and Engineering students, studying as part of an approved level 6 Apprenticeship in Project Controls

On programme, students will have access to industry approved project controls software, such as Primavera and Deltek Cobra to ensure their knowledge and applied skills are appropriate for industry. Contemporary engineering and manufacturing based case studies will be used throughout the programme to provide students with valuable and rich experiential learning,

supported by industry based guest lectures and workshops. Furthermore, alignment of these programmes to the ACOSTE professional body will provide students with numerous opportunities whilst on programme to be professionally recognised and accredited, whilst taking part in meaningful and enriching professional development workshops provided by the ACOSTE.

The Project Management Centre of Excellence's BSc (Hons) Project Controls Professional Degree programme develops the higher level skills needed by professionals working or planning to work in the project controls role. This programme covers a broad range of stimulating project controls disciplines to allow your employees to successfully oversee each stage of the project lifecycle. This degree apprenticeship will develop the academic knowledge together with the higher practical and technical competences needed to increase productivity and achieve genuine competitive advantage. BSc (Hons) Project Controls Professional Degree programme comprises both the Foundation Degree (levels 4 and 5) and BSc (Hons) top-up level 6 programmes in project controls, delivered concurrently with workplace skills and development.

Admission Criteria

Whilst entry requirements are a matter for individual employers, typically an apprentice might be expected to have achieved appropriate level 3 qualifications on entry e.g. 3 GCE "A" Levels at Grades A to C, or a vocational equivalent.

Apprentices without level 2 English and maths will need to achieve this level prior to taking the End-Point Assessment. For those with an education, health and care plan or a legacy statement, the apprenticeship's English and maths minimum requirement is Entry Level 3. A British Sign Language (BSL) qualification is an alternative to the English qualification for those whose primary language is BSL.

Career Options and Progression Opportunities

Project controls professionals are responsible to the project sponsor/owner for the end-to-end delivery of a project or a subset of a project, ensuring that multifaceted projects deliver successfully and safely to time, cost and quality.

They have responsibility to critically analyse, interpret and evaluate technical information to develop coding structures, cost and time objectives, robust recommendations and recovery plans for the project, programme or portfolio manager.

A project controls professional is needed where the level of risk associated with the project such as commercial; safety; environmental; legal; and/or people, is sufficiently great to require independent assurance and verification of technical information.

Technical information includes: cost information, estimates, schedules and plans, risk, change, scoping documents, statistics, probabilities, engineering drawings and plans etc.. In their daily work, an employee in this occupation interacts with people across the business including the project, programme or portfolio manager, senior specialists, decision-makers and other colleagues. In addition, they have regular contact with engineers, site managers, clients and the supply chain. On a day to day basis the project controls professional works closely with team members and support staff. The project controls professional (PCP) will be either office or site based depending on the demands of the project. Travel and flexible working may be necessary to support the project.

Depending on the organisation, they may be the only PCP on the project, part of the team or they may lead a team of project control technicians (PCTs) that deliver information and/ or report to them. They may be responsible for developing others within the organisation. Depending on the organisation they would typically report into the Director of project controls. PCPs will typically work under matrix management arrangements.

They are accountable for assuring the validity and reliability of the project controls information on the project and for interpreting the project controls reports being fed into them from the project controls technicians. They are accountable for providing an essential insight into the health of the project, programme, and portfolio and for making recommendations to control the project.

The PCP has a comprehensive understanding of the component parts of the project across the life cycle. They understand the context of the analysis of the data and the impact of decisions. They have the confidence to challenge and interpret data reports, to interrogate and question the assumptions, the risks etc. They have an in-depth understanding of the technical data and what it means in detail because they have both technical knowledge and the skill to apply this in the context of controlling the project. This is why they are essential on complex projects and why project controls professionals are needed to work alongside project/programme and portfolio managers.

The PCP is critical in terms of ensuring the project controls processes capture the right, meaningful, quality data from within the company and/or subcontractors in the right format at the right time and is analysed and interpreted in the correct context – this is essential to ensure effective control.

The PCP is autonomous and self-directing. They decide where their expertise is needed in a project to which they have been assigned.

Typically, the PCP works on a range of projects which may include projects with multi-million pound budgets, spanning over several years, across multi-locations, with inter-disciplinary teams. The project manager (PM) has ultimate responsibility for decisions made on a project. The PCP is accountable for the recommendations that they make to the project, programme and portfolio manager. The PCP influences at PM and above PM level to a project controls director. Project control has to be independent of project management in order to ensure effective control.

Programme Aims

The Foundation Degree Project Controls Professional aims to:

- Aim 1
To provide the opportunity for students to gain skills, knowledge and confidence to apply proven project control principles, techniques, applications and methods in the workplace.

- Aim 2
To explore new developments in the field of project controls and advanced techniques to enable students to become proficient project controls engineers with a robust foundation and framework in this specialist field of engineering.

- Aim 3
To acquire knowledge, analyse and evaluate new developments in the discipline as they emerge and to apply these appropriately to their chosen specialist field.

- Aim 4
To provide students with the opportunity to gain transferable knowledge and skills to enable them to engage fully into the research and development of project control methods, systems and structures.

-Aim 5
To provide students with the opportunity to evaluate the social, environmental, ethical, economic and commercial considerations that affect project centric industry based decisions and judgement.

BSc (Hons) Project Controls Professional

- Aim 1
To produce professionals who have the capacity to work at high levels within sectors that are project centric, producing sustainable outcomes for the success of these industries and to take responsibility for lifelong learning for successful career development.

- Aim 2
To provide students with the opportunity to gain a critical and informed awareness of contemporary and ethical issues, legislation, problems and opportunities afforded by a focus and contextualisation upon project controls in recognition of the impact of the demands of industry.

- Aim 3
To provide academic, technical and personal development through a variety of learning experiences, in particular, the development of communication skills and capability of critical analysis, problem solving, the presentation and justification of rational argument and alternative courses of action.

- Aim 4
To enable students to critically review, consolidate and extend a systematic and coherent body of knowledge, by utilising specialised, analytical, diagnostic, and creative skills across an area of study, evaluating concepts and evidence from a range of sources, and exercising significant judgement in a range of professional situations.

Programme Learning Outcomes

Level 5

Upon successful completion of this level, students will be able to:

1. Evaluate the social, environmental, ethical, economic and commercial considerations that affect project centric industry based decisions and judgement.
2. Provide sound evidence based solutions to identified engineering based problems in order to formulate creative solutions through sound project control application.
3. Apply industry standard project control processes, procedures and control methods, utilizing software applications and critical reporting functions.
4. Problem solve, communicate and work collaboratively with others, and independently to develop innovative ideas' and new ways of thinking to support the development of business practices and knowledge.

Level 6

Upon successful completion of this level, students will be able to:

5. Analyse and apply effective interpersonal skills and ethical reasoning to lead team specific outputs and communicate technical and non-technical information to a variety of audiences.
6. Apply quantitative science and analytical tools to the analysis of project control application and problem solving.

7. Appraise specialist project control and planning principles and knowledge to extend technological capability and knowledge base through new applications and techniques.
8. Interrogate engineering project problems using a sound evidence base to contribute to improved effectiveness of engineering outputs, systems and services supporting through life sustainability.
9. Analyse and evaluate complex systems and their interdependencies through the application of systems thinking.

Programme Structure

Module	Level	Credits	%	Category	Description	Length/Word Count	Grading Method
Stage 1							
B4SCPCP: Introduction to Academic Study (Mandatory)	4	20	60%	Coursework: Other	Written piece and reflection	2000	Letter Grade
			40%	Practical: Other	Case study, analysis, interpretation (1500 words) and poster presentation (15 minutes)	15	Letter Grade
PCP401: Methods and Principles of Project Controls (Mandatory)	4	20	60%	Coursework: Essay	n/a	3000	Letter Grade
			40%	Coursework: Other	Reflection on Forum Discussions	2000	Letter Grade
PCP402: Application of Project Controls (Mandatory)	4	20	70%	Coursework: Live Project	n/a	3000	Letter Grade
			30%	Coursework: Evaluative/ Reflective Report	n/a	1000	Letter Grade
PCP403: Principles of Planning and Scheduling Practice (Mandatory)	4	20	40%	Coursework: Report	Summative Project Report	1500	Letter Grade
			20%	Coursework: Evaluative/ Reflective Report	n/a	1000	Letter Grade
			40%	Practical: Presentation	Summative Presentation	20	Letter Grade
PCP404: Project Team Dynamics for Project Controls (Mandatory)	4	20	80%	Coursework: Essay	Coursework - Report	3000	Letter Grade
			20%	Coursework: Evaluative/ Reflective Report	Evaluative/ Reflective Report (Personal Reflection)	1000	Letter Grade
PCP405: Controlling the Project Environment (Mandatory)	4	20	40%	Coursework: Case Study	n/a	1500	Letter Grade
			60%	Coursework: Assignment	n/a	1200	Letter Grade
Stage 2							
PCP501: Cost Planning, Control and Commercial Practice (Mandatory)	5	20	50%	Coursework: Assignment	n/a	2500	Letter Grade
			10%	Coursework: Evaluative/ Reflective Report	n/a	1000	Letter Grade
			40%	Coursework: Other	Reflection on Forum Discussions	2000	Letter Grade
PCP502: Project Data Collection and Analysis (Mandatory)	5	20	80%	Coursework: Case Study	n/a	3000	Letter Grade
			20%	Practical: Exercise	n/a	120	Letter Grade

PCP503: Project and Programme Planning and Performance Monitoring (Mandatory)	5	20	80%	Coursework: Case Study	n/a	3500	Letter Grade
			20%	Practical: Presentation	n/a	20	Letter Grade
PCP504: Legal, Ethical and Professional Issues within Project Control (Mandatory)	5	20	40%	Coursework: Essay	n/a	3000	Letter Grade
			20%	Coursework: Evaluative/ Reflective Report	n/a	1000	Letter Grade
			40%	Coursework: Other	Reflection on Forum Discussions	2000	Letter Grade
PCP505: Project Controls Software Evaluation and Selection (Mandatory)	5	20	50%	Coursework: Critical Review	n/a	2000	Letter Grade
			50%	Practical: Software Program	n/a	2000	Letter Grade
PCP506: Major Project (Mandatory)	5	20	10%	Coursework: Evaluative/ Reflective Report	Personal Reflection	1000	Letter Grade
			70%	Coursework: Live Project	n/a	3000	Letter Grade
			20%	Practical: Presentation	n/a	20	Letter Grade
Stage 3							
PCP601: Complex Project Environment (Mandatory)	6	20	60%	Coursework: Report	n/a	3000	Letter Grade
			40%	Coursework: Other	Reflection on Forum Discussions	2000	Letter Grade
PCP602: Advanced Project Control Techniques (Mandatory)	6	20	60%	Coursework: Critical Review	n/a	3000	Letter Grade
			40%	Practical: Practical Skills Assessment	n/a	120	Letter Grade
PCP603: Organisational Strategy and Change within Project Controls (Mandatory)	6	20	60%	Coursework: Report	n/a	3000	Letter Grade
			40%	Coursework: Other	Reflection on Forum Discussions	2000	Letter Grade
PCP604: Project Controls Professional (Mandatory)	6	20	40%	Coursework: Evaluative/ Reflective Report	Critical Reflective Log	1500	Letter Grade
			40%	Coursework: Evaluative/ Reflective Report	Critical reflective log	1000	Letter Grade
			20%	Practical: Practical Skills Assessment	Practical presentation/ skills assessment	1500	Letter Grade
PCP605: Dissertation Work Project (Mandatory)	6	40	80%	Coursework: Dissertation	Dissertation Report	10000	Letter Grade
			20%	Practical: Presentation	n/a	30	Letter Grade

Study Workload

On average per week part-time students can expect an average of 6 hours per week in lectures, workshops and seminars and 12 hours in independent study (work placement hours will occur in year three unless already in project-based employment).

Programme Delivery: Learning and Teaching

The teaching and learning strategy has been shaped in response to the needs and requirements of - and feedback from – students and employers.

The strategy is designed to be as informal as possible and is based on interactive lecture and seminar sessions and inclusivity of the Virtual Learning Environment platform as an appropriate blending learning medium.

At this stage, you will be required to be autonomous learners in many respects. This will certainly apply to the major project module and the work-based learning and dissertation modules in particular.

Both formal and informal formative and summative assessments will require you to demonstrate advanced study skills and to use them in the critical analysis and synthesis of information from a variety of academic and professional sources.

Summative assessment such as reports, essays, reflections, presentations and case studies as well as formative assessment including online discussion forums, reading reflections, group discussions will be used in different modules to ensure all aspects of learning are assessed and that your work is evaluated differently and covers the diversity of learning needs.

Modes of assessment may be drawn from the following, for example:

- essays will allow the students to explore the theoretical context
- literature review - students learn how to use existing literature to help solve a problem, win support, or determine what further research needs to be conducted
- results reported in written form, in poster form, or as multimedia presentation
- individual reports encourage independent study through a structured framework
- pre-seen and unseen written assessments and examinations add academic rigour
- presentations and structured debates develop communication skills and teamwork
- short exercises involving data analysis promote statistical research skills
- portfolio work develops appropriate methodologies and reflective practice

Programme Delivery: Assessment

COURSEWORK

Most courses are assessed via a combination of coursework and exams. Coursework might range from written tasks and assignments to the collation of a portfolio of evidence based around a work placement. Coursework differs from exams in that it is usually non-timed and carried out independently.

EXAM

Exams are formal, timed written assessments, carried out in a controlled environment and overseen by one or more invigilators. They assess your grasp of the theory and underpinning knowledge related to your chosen career area. The opposite of practicals, they require you to set out your practical understanding within an academic context. Some courses have no exams.

PRACTICAL

Practical assessments identify your technical ability to apply theory to hands-on tasks in your chosen career area. They can be timed or non-timed and involve observation of your practical skills and competencies, either in a work-based environment or a dedicated College setting that closely resembles the workplace. Practical work-based assessments are supported and carried out by a trained assessor.

Programme Delivery: Work Based and Placement Learning

It is a requirement of this degree apprenticeship that students will be employed in a suitable role to complete all aspects of the apprenticeship.

For further details please see the apprenticeship standard and assessment plan here.

Programme Delivery: Graduate Skill Development

Core Graduate Skills

A commitment to lifelong learning and career development

This is driven home early to you in the Introduction to Academic Studies module which shows the links between learning and career development and progression. Between levels (e.g., L4 to L5) we run sessions that highlight the difference between the levels, the connection to graduate skills, how feedback should work and deal with your concerns with regards to your readiness for that level.

Between L4 and L5 and between L5 and L6 there is a recap session on main points that were covered during the Introduction to Academic Studies module (e.g., procrastination, time management, etc.).

One-to-one tutorials have a target setting focus with the you having to explain what you have completed since the previous action plan and show how you have since updated the document and discuss any barriers that were preventing completion of elements. You are presented with ways to deal with those barriers and/or referred to the Partners for Success support team.

Collaborative teamwork and leadership skills

There is considerable focus on these skills both from a theoretical sense and practical sense in modules like Project Team Dynamics for Project Controls as one can
imagine and Organisational Strategy and Change within Project Controls. In other modules

students work on group presentations, group debates or online discussions which strengthen their practical skills in this area as well as more formative challenges to encourage group work.

Personal and intellectual autonomy

During progression through the programme, you are gradually inculcated in autonomous academic behaviour. Critical thinking is taught within Introduction to Academic Studies at level 4 and advanced further at level 5 in Project Data collection and Analysis, Organisational Strategy and Change within Project Controls, Major Project and Dissertation Work in level 6 and allows you to understand that you can challenge the status quo if armed with effective arguments you have developed.

Ethical, social and professional understanding

The module Legal, Ethical and Professional Practices Issues within Project Controls covers these aspects in depth, allowing you to develop a moral imagination grounded in multiple ethical perspectives such as consequentialism, deontology, and virtue ethics. Also, when considering health and safety within Major Project and the Dissertation Work Project you are encouraged to view it at a wider social level as both a legal and moral obligation.

Communication, information and digital literacies

Communication is one of the cornerstones of Project Controls and gets considerable coverage across both the foundation degree and the BSc Honours top-up modules, e.g., Introduction to Academic Studies and Project Team Dynamics for Project Controls. Information and digital literacies and further explored in modules Project Controls Software Evaluation and Selection, and Project Data Collection and Analysis at level 5.

Global Citizenship

With modern project management often requiring people to be able to work on transnational projects, global citizenship has quite a bit of attention paid to it especially on the Legal, Ethical and Professional Issues within Project Controls module as well as Complex Project Environments.

Research, scholarship and enquiry skills

Initially delivered as part of the Introduction to Academic Studies level 4 module these skills are practically implemented on some assignments in modules like Controlling the Project Environment (e.g. the first assignment is a small student research project). This is delivered further at level 5 in Major Project and in detail on the Dissertation Work Project module

Enterprise and entrepreneurial awareness and capabilities

Delivered within the Controlling the Project Environment and the Complex Project Environment modules these skills are further addressed at level 5 and 6 in modules
like Organisational Strategy and Change within Project Controls and Major Project.

The ability to solve complex and unforeseen problems with creativity and imagination.

The ability to solve complex and unforeseen problems within Project Controls is developed throughout the programme starting with Application of Project Controls module at level 4 and continuing through Cost Planning, Control and Commercial Practice, Project Data Collection and Analysis, Project and Programme Planning and Performance monitoring and Project Controls Software Evaluation and Selection module at level 5.

Study Costs: Equipment Requirements

All equipment/resources you require for this course are provided by B&FC at no extra cost

Study Costs: Additional Costs

All equipment/resources you require for this course are provided by B&FC at no extra cost

Related Courses

Upon completion of the PCP programme, students who wish to progress on to Master's level study could opt for project management, management, leadership or executive based programmes.