



## Microcredential Specification

Key Information			
Microcredential title	Innovation and Supply Chain Technology		
FHEQ Level	7	Credit value	15
Federation Member	City St George's, University of London	Notional study hours and duration of course	150 hours
Course Academic Subject Expert	Dr Michael Etter		

Rationale for the course
<p>Today's firms are increasingly challenged by changing demands for products, volatile supply of commodities, and geographically expanding supply chain networks. The innovation of supply chain technologies and processes is therefore a crucial factor to meet these challenges. By adopting new technological developments, such as artificial intelligence, block chain technology, Big Data analytics, and automation technologies through innovation processes, firms can gain a competitive advantage.</p> <p>This course takes a detailed look at the processes, issues, and decisions required to manage innovation processes effectively within a firm and its networks. The overall objective of the course is to develop an understanding for how managers can design, manage, and improve innovation processes with the aim to accommodate market needs and the latest technological developments.</p>

Aims of the course
<p>This course aims to provide you with a foundational knowledge in innovation management of supply chain technologies. The objectives of this course are:</p> <ol style="list-style-type: none"> <li>1. To understand the processes and sources of innovation</li> <li>2. To introduce a range of tools and frameworks for developing and improving the creation and delivery of products and services</li> <li>3. To recognise the challenges and dilemmas of innovation management in the presence of the conflicting priorities and external constraints</li> <li>4. To present the tools managers utilise in dealing with those challenges in order to achieve innovation and sustainable adoption of supply chain technologies</li> <li>5. To provide the skills necessary to apply those tools and assess their relevance, strengths and weaknesses under different scenarios and in different industries.</li> </ol>

Topics covered in this course:
<ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Sources of innovation</li> <li>3. Forms of innovation</li> <li>4. Entry strategies</li> <li>5. Strategy and technology innovation</li> <li>6. Innovation process management</li> <li>7. Choosing innovation projects</li> <li>8. Collaboration strategies</li> </ol>

9. Organising innovation
10. Sustainability and supply chain technology

### Learning outcomes for the course

**On successful completion of this course, you will be expected to be able to:**

**Knowledge and understanding:**

1. Assess different types of innovation processes according to their characteristics
2. Describe the requirements for effectively managing innovation within a firm and its networks
3. Understand the impact of external factors on internal innovation processes
4. Compare and analyse innovation management frameworks and understand how to apply them to the innovation and adoption of supply chain technologies

**Skills:**

1. Identify and assess the different sources and processes of innovation
2. Apply frameworks and tools to choose and evaluate innovation projects
3. Create an innovation culture and lead innovation teams
4. Identify the right time for market entry and innovation adoption
5. Identify opportunities for collaborations and strategic alliances in the innovation process

**Values and attitudes:**

1. Appreciate the challenges of managing innovation projects under uncertainty and in fast moving environments
2. Articulate the value of a systematic, holistic and cross-functional approach to innovation-related decision making
3. Consider the sustainability dimensions for the innovation of supply chain technologies
4. Demonstrate the importance of being tolerant of disagreement, open and sensitive to diversity in business, cultures and people

### Learning and Teaching Strategy and Methods

The learning and teaching strategy for this course reflects the flexible, self-paced model required for microcredentials, ensuring that all students can progress in a structured yet adaptable way, regardless of their location, background or prior experience of online learning

The course is designed by subject specialists and supported by expert learning designers and online education teams to ensure that learning activities, digital media and assessment are aligned to the intended learning outcomes.

A structured sequence is embedded into every course, following a coherent approach to content acquisition, active learning, feedback and evaluation

- Content introduces and explains core concepts through a blend of video and digital reading.
- Activity enables students to apply learning through practice-based, professional and reflective tasks.
- Feedback is provided through automated quizzes, model responses and guidance from the AI study assistant.
- Evaluation encourages learners to reflect on their progress and identify next steps in their learning journey.

This approach ensures continuity throughout the ten modules and supports students in building confidence, competence and independence progressively across the course.

### Teaching methods

The following teaching methods are integrated into the course design:

- Video-based guidance delivering structured explanations of key ideas with visual aids
- Interactive learning activities enabling knowledge application to authentic workplace scenarios
- Self-directed independent learning through guided readings, online library exploration and personal research
- Frequent formative assessment including knowledge checks, worked examples and reflective questions to reinforce understanding and skills development
- AI-supported learning with 24/7 access to the AI study assistant for clarification, feedback and study support at the point of need
- Progress monitoring and reflection helping students assess achievement, review understanding and plan further study

### Support for learning

Although this course does not include scheduled live teaching, students are never studying alone. The learning platform includes tools to track progress, submit assessments and access feedback, while the Online Library provides curated digital resources to enhance academic skills and knowledge

Clear guidance is provided to help students manage their study time, structure weekly goals and maintain consistency throughout the learning journey. Recommendations for integrating study into personal and professional schedules are included in the induction resources, promoting resilience, motivation and successful completion

### Assessment strategy, assessment methods

This course uses a practical assessment approach that helps you show both your understanding of key ideas and your ability to apply them to real business situations. You will complete a coursework task that test how well you can use core theories and analytical techniques. This assessment focuses on developing real professional skills, such as interpreting business data, solving operational or financial problems, and explaining your decisions clearly using appropriate frameworks. This approach looks at your abilities as a whole—how you connect theory with practice—while also helping you build your analytical, critical-thinking, and communication skills over time. A mark of 50% is required to pass the assessment.

The assessment design is flexible and supports self-paced learning. For coursework tasks, students can choose from a range of assessment windows and submit their work at the point that best fits their personal schedule and study plans. This flexibility allows you to manage your learning in a way that suits your circumstances, while still meeting the module's academic requirements. It also encourages you to plan your time effectively and engage with the material at a pace that supports deeper understanding.

### Assessment Elements

1. Coursework (100% weighting)
  - Students are required to apply the concepts and techniques learned in the module to a realistic business scenario.
  - The assessment is designed to develop your global employability skills.
  - The coursework is directly aligned with the module's learning outcomes, ensuring you are assessed on the knowledge, skills, and competencies you are expected to achieve.

### Learning resources

This course is structured into ten modules, designed to support flexible self-paced study and the practical application of knowledge to professional contexts

The learning resources are curated to enable both directed learning and independent study, providing opportunities to acquire new knowledge, apply concepts in realistic scenarios, receive feedback and evaluate progress throughout the course

Each course follows a consistent learning sequence, incorporating a blend of the following resource types:

### **Video lessons**

Concise explainer videos introduce key concepts and practical methods. Presenters utilise visual aids such as slides and screen demonstrations to enhance understanding and maintain clarity.

### **Interactive and practical activities**

Learning activities provide opportunities to apply concepts to real-world and workplace scenarios. These include worked examples, reflective tasks and application-based exercises designed to build confidence and professional competence as you progress

### **Quizzes and knowledge checks**

Automated quizzes provide rapid feedback to support mastery of key ideas. These may include multiple-choice questions, worked solution examples or feedback from the AI study assistant.

Quizzes are generally used formatively to reinforce learning, but some may contribute to assessment if completed under appropriate conditions.

### **AI-supported learning**

A 24/7 AI study assistant is available throughout the course to provide guidance, help learners reflect on progress, clarify concepts and support completion of designated activities.

### **Self-evaluation tools**

Regular opportunities are provided for learners to monitor progress, reflect on achievements and identify areas requiring further study, ensuring continuous learning and improvement

### **Project-based learning**

Each learner develops a professional-quality project linked to a realistic scenario. This supports the development of globally relevant employability skills, including communication, digital capability, problem-solving and adaptability

### **E-resources and library access**

All students receive full access to the University of London Online Library and VLE resources. Directed reading and recommended online sources are integrated into each course, supporting further research, information-literacy development and independent study

Materials are provided in accessible digital formats suitable for study across multiple devices. Learners are encouraged to extend their engagement with topics of interest through wider reading and exploration of online library holdings.

### **Study expectations**

Courses include indicative timings to support planning and time management, with a total study commitment of approximately 150 hours for the full course. Learners may adjust weekly effort to suit their individual needs and availability whilst progressing through courses in the recommended learning sequence

## **READING LIST**

- Ahmed, P.K. and C.D. Shepherd *Innovation management: context, strategies, systems and processes*. (Harlow: Financial Times Prentice Hall, 2010).
- Bendor-Samuel, P. 'Accenture and Genpact making big plays in supply chain digital transformation', *Forbes* (July 2018).
- Dirlea, V., K. Engle and J. Graff 'Innovation: It's not art: It's a capability', *Supply Chain Management Review* 19(3) 2015, pp.48–9.
- Hall, J. 'Environmental supply-chain innovation', *Greener Management International* 35, 2001, pp.105–20.
- IBM 'Maersk and IBM introduce TradeLens blockchain shipping solution', *PR Newswire*, (2018).
- Ingvild Holmem, B. 'Norway: Supply chain management survey indicates greater pressure on companies to demonstrate sustainability', *Det Norske Veritas Group* (2018).
- Johnson, T. 'How the Amazon supply chain strategy works', *CPC Strategy* (2020).
- McMillan, A. 'Gartner: how AI is revolutionising supply chain management', *Procurement Magazine* (2024).
- Mentzer, J.T., M.B. Myers and T.P. Stank *Handbook of global supply chain management*. (London: Sage Publications Inc, 2006) 1st edition [ISBN 9781412973397]
- Patterson, K.A., C.M. Grimm and T.M. Corsi 'Adopting new technologies for supply chain management', *Transportation Research Part E: Logistics and Transportation Review* 39(2) 2003, pp.95–121.
- MaRS 'Dell: Distribution and supply chain innovation' (2018).
- Sabath, R. and R. Sherman 'Want to innovate? Break the rules', *Supply Chain Management Review* 17(1) 2013, pp.12–8.
- Schilling, M.A. *Strategic management of technological innovation*. (Columbus, Ohio: McGraw-Hill Education, 2017)
- Scott, A. 'Streamlining success: Amazon's mastery of supply chain efficiency', *SupplyChain* (2024).
- Schot, J. and F.W. Geels 'Strategic niche management and sustainable innovation journeys: theory, findings, research agenda, and policy', *Technology Analysis & Strategic Management* 20(5) 2008, pp.537–54.
- Sodhi, M.S. and C.S. Tang 'Supply chains built for speed and customization', *MIT Sloan Management Review* 58(4) 2017, no. 58419, pp.7–9.

*Precise reading from this material will be specified as part of the course.*

*Additional recommended reading and other references will be available in the VLE.*