

Module: Innovation Management 381

Module name:	Innovation Management 381
Code:	INM381
NQF level:	7
Type:	Elective – Bachelor of Computing (all streams)
Contact Time:	53 hours
Structured time:	4 hours
Self-directed time:	53 hours
Notional hours:	110 hours
Credits:	11
Prerequisites:	None

Purpose

Innovation is the combination, or synthesis of knowledge in original, relevant, valued new products, processes, or services. The main focus of innovation management is gaining an understanding of how to grow a technological product from ideation through to maturity and how to cross certain boundaries within an existing or new innovative products life cycle. The module also focuses on evaluating certain methodologies and how one can utilise them to manage and put an innovative idea to market.

Outcomes

Upon successful completion of this module, the student will be able to

- Demonstrate integrated knowledge of managing innovation, disciplines or practices, including an understanding of and the ability to apply and evaluate the key terms, concepts, facts, principles, rules and theories and relating it to other fields when managing an innovation project or product.
- Show an understanding of a range of methods of enquiry into innovation management their suitability to specific investigations into dominant designs; and the ability to select and apply a range of methods to resolve problems where innovation can't cross the chasm into mainstream markets.
- Identify, analyse, evaluate, and critically reflect on innovation management methodologies and practices and their suitability on technological discontinuities.
- Processing and managing information evaluating the validity with regard to dominant designs and presenting it to management.
- Communicate management information regarding innovation with well-formed arguments using professional or occupational discourse.
- Demonstrate the ability to take decisions and act ethically and professionally, when considering the implications of pushing innovation into the market and its impact on people's lives.

Assessment

- Continuous evaluation of work through 3 assignments.

- Continuous evaluation of work through a summative test which assesses the theoretical knowledge.
- Continuous evaluation of project work, whereby the student must evaluate and present results on given case studies. Students will work in groups and conduct peer assessments. The grade will reflect participation in the project, the role and mastery of course through a presentation.
- Final assessment through a written examination.

Teaching and Learning

Learning materials

Presentation notes and hand-outs.

Additional Reference Material:

- 📖 Christensen, Clayton M., and Overdorf, M.. Meeting the Challenge of Disruptive Change. *Harvard Business Review* 78, no. 2
- 📖 W. J. Abernathy and J. M. Utterback, *Patterns of Industrial Innovation*, *Technology Review*, Vol. 80, No. 7, 1978
- 📖 Anderson, Philip, and Michael L. Tushman. *Technological discontinuities and dominant designs: A cyclical model of technological change*. *Administrative science quarterly* (1990): 604-633

Learning activities

The teaching is a combination between presentation of theoretical concepts and exercises and discussions. Lectures, assignments and project work will build discipline specific expertise in the area of innovation management. Assignments will be reviewed in class. The project involves working in a team, conducting user studies with members of the group whereby groups will develop an understanding of how to overcome the inhibitors of innovative products or services. The project culminates in an individual report and a group presentation.

Notional learning hours

Activity	Units	Contact Time	Structured Time	Self-Directed Time
Lecture		42.0		20.0
Formative feedback		7.5		
Project	1	3.5		9.0
Assignment	3			9.0
Test	1		2.0	5.0
Exam	1		2.0	10.0
		53.0	4.0	53.0

Syllabus

- Companies responses to innovative ideas as it grows.
- Innovation changes as technology matures.
- Nature of how an industry changes as technology matures.

- Abernathy and Utterback innovation pattern to identify a dominant design.
- Implications when a dominant design emerges and how to react to this.
- Tushman and Rosenkopf four stages of technological change.
- Distinguish between sustaining and disruptive innovations.
- Apply various methods to develop a strategy for managing innovation.
- Choosing appropriate evaluation methodologies to rank innovation projects.
- Identifying a market entry strategy for an innovation project based on certain circumstances.
- Selecting appropriate indicators to measure an innovation product and justifying why these indicators will work best for a chosen innovation product.
- Evaluate the pitfalls found within an innovation projects lifecycle.
- Make recommendations from gathered sources of information and recommend a proposed solution to overcoming these pitfalls.
- Make a convincing recommendation on how one can manage innovation.