UNIVERSIDADE FEDERAL DO CEARÁ

FEDERAL UNIVERSITY OF CEARÁ
OFFICE OF THE VICE PROVOST FOR UNDERGRADUATION (PROGRAD)
COORDINATION FOR PROJECT AND CURRICULUM DEVELOPMENT
CURRICULUM DEVELOPMENT DIVISION

1. Academic unit offering the curricular component (Faculty, Center, Institute, Campus)**:**

Center of Technology

2. Department offering the curricular component (when applicable)**:**

Teleinformatics Engineering Department

3. Undergraduate course(s) offering the curricular component

Code of the Course	Name of the Course	Course Degree[1]	Curriculum (Year/ Semester)	Nature of the Component[2]	Semester of Offer[3]	Habilitation[4]
91	Telecommunications Engineering	Bachelor	2015.1	Optional	-	-

4. Name of the curricular component:
Technological Innovation Management

5. Code of the curricular component (filled by PROGRAD)**:**
TI0121

6. Prerequisites	No ( )	Yes (x)	
		Code	Name of the curricular component / activity
		TK0134	Fundamentals of Business Administration

7. Corequisite	No (x)	Yes ( )	
		Code	Name of the curricular component / activity

8. Equivalences	No (x)	Yes ( )	
		Code	Name of the curricular component / activity

9. Day period of the curricular component (more than one option can be selected)**:**
(x) Morning (x) Afternoon (x) Night

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1 **Fill with *Bachelor (Engineer), Licenciate,* or *Technologist.***
2 **Fill with *Mandatory, Optional,* or *Elective.***
3 **Fill when mandatory.**
4 **When elective, fill with the habilitation or emphasis to which the curricular component is linked.**

10. Regime of the curricular component:

(x) Semester ( ) Yearly ( ) Modular

11. Justificatory for the creation/regulamentation of this curricular component

In addition to understanding the technical aspects related to the performance of its function, the engineer has added to the technology, business and services. The engineer must, therefore, be capable of an integrated understanding of the market world, where greater competitiveness and better quality are objects of a continuous search. In an environment that requires constant improvement and innovation in products and services, innovation management processes are indispensable for achieving such objectives.

12. Objectives fo the curricular component:

Provide the engineer with the theoretical and practical requirements needed to ensure better performance and success rate in enterprises that require innovation in products, services or processes.

13. Syllabus:

Introduction and Concepts; Innovative Thinking; Innovative Organization; Human Factor in Technological Innovation; Interaction between Markets and Technologies; Selection of Innovation Projects; Intellectual Property.

14. Program:

1. **Introduction and concepts:** history of innovation; definition of innovation; innovation management; human and organizational elements necessary for innovation; phases and processes of innovation; types of innovation; measuring success in innovation; case study.
2. **Innovative thinking:** creativity in innovative projects; obstacles to innovative thinking; tools for generating ideas; tools for evaluating ideas; discovery of needs; creation of prototypes; case study.
3. **Innovative organization:** business structures for innovation; innovation project teams; internal innovation networks; external partnerships for innovation; sources of opportunities for innovation; implementation of innovation projects; realization of benefits; knowledge management; case study.
4. **Human factor in technological innovation:** personal skills model; self-assessment of personal skills; personal skills that facilitate and inhibit innovation; personal skills of the innovation project manager; personal skills development plan; specificities in the management of technical professionals; features of high performance and productivity teams.
5. **Interaction between markets and technologies:** technological products life cycle; strategic positioning of products; prospecting of users; strategies for adopting innovative products; services and products accessories; case study.
6. **Selection of innovation projects:** business strategy and technology strategy; ability to execute projects; resource allocation; prioritization of projects; risk analysis; project portfolio management; case study.
7. **Intellectual property:** reasons to protect knowledge; types of intellectual property and

respective uses: patent of invention; utility model patent; Industrial draw; brands; geographical indications; cultivars; Copyright; software registration; topography record of integrated circuits.

15. Workload description

Number of Weeks:	Number of Credits:	Total Workload in Hours:	Theory Workload in Hours:	Practice Workload in Hours:
16	04	64	64	-

16. Basic bibliography:

1- Managing Innovation: Integrating Technological, Market and Organizational Change; Joe Tidd; Wiley; 5th edition (2013); ISBN-10: 111836063X; ISBN-13: 978-1118360637

2- Lecture notes.

3- Innovation Management and New Product Development; Paul Trott; Prentice Hall; 5th edition (2011); ISBN-10: 0273736566; ISBN-13: 978-0273736561

17. Complementary bibliography:

1- Managing Technology Entrepreneurship and Innovation; Paul Trott, Dap Hartmann, Victor Scholten, Patrick van der Duin; Routledge (2013); ISBN-10: 041567722X

2- Innovation Management: Strategies, Implementation, and Profits; Allan Afuah; Oxford University Press; 2a. Edição (2002); ISBN-10: 0195142306

3- Strategic Management of Technological Innovation; Melissa Schilling; McGraw-Hill; 4th edition (2012); ISBN-10: 0078029236

4- Strategic Management of Technology and Innovation; Robert Burgelman, Clayton Christensen, Steven Wheelwright; McGraw-Hill; 5th edition (2008); ISBN-10: 0073381543

5- Gestão da Inovação Tecnológica; Dálcio R. dos Reis; Manoel; 2nd edition (2007).