



# 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 <sup>1</sup>	Curriculum (Year/Semester)	Nature of the Component <sup>2</sup>	Semester of Offer <sup>3</sup>	Habilitation <sup>4</sup>
91	Telecommunications Engineering	Bachelor	2015.1	Optional	-	-

**4. Name of the curricular component:**

Service Management

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

TI0130

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 ( )	Yes (x)	
		Code	Name of the curricular component / activity
		TI0086	Service Management in Teleinformatics

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

Morning       Afternoon       Night

<sup>1</sup> Fill with *Bachelor (Engineer), Licenciante, or Technologist.*

<sup>2</sup> Fill with *Mandatory, Optional, or Elective.*

<sup>3</sup> Fill when mandatory.

<sup>4</sup> 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**

The telecommunications area has added to the technology business and services. The telecommunications engineer must therefore be able to master the relevant technologies and have an integrated understanding of the market world, where greater competitiveness and better quality are the objects of a continuous search.

**12. Objectives for the curricular component:**

Provide the theoretical and practical requirements necessary to ensure the best performance in the provision of telecommunication services and ensure the feasibility of business based on the provision of telecommunications services.

**13. Syllabus:**

The Nature of Services. Marketing Services. Quality of Service. Cost Management for Services. Applied Statistics in Services. Economics of Telecommunications.

**14. Program:**

1. **The Nature of Services:** Conceptualization. Manufacturing activities. Service activities. The impact of services on the economy. Peculiarities of services. Structuring of services. Criteria of excellence. Planning and business strategy.
2. **Service Marketing:** Basic concepts. Strategic service management. Marketing of services and communication with the market. The practice of service marketing.
3. **Quality of Service:** Concepts. Quality system. Models of quality management, norms and standards. Customer interaction. Cycle of quality management in services. Quality in the acquisition of products or services. Quality warranty. Quality control.
4. **Cost Management for Services:** Cost systems. Cost accounting. Funding by absorption. Managerial cost. Cost of services. Importance of services cost management in the business environment. Differences between production and service costs.
5. **Statistics Applied in Services:** Basic concepts. Trend measures. Descriptive statistics. Inductive statistics. Indicators. Use of statistical techniques for identification, analysis and troubleshooting.
6. **Economics in Telecommunications:** market structure, competitive aspects, economic influence of regulation, economic influence of technology, pricing of services, spectrum auctions, Internet economy, mobile communication economy.

**15. Workload description**

<b>Number of Weeks:</b>	<b>Number of Credits:</b>	<b>Total Workload in Hours:</b>	<b>Theory Workload in Hours:</b>	<b>Practice Workload in Hours:</b>
16	04	64	64	-

**16. Basic bibliography:**

- 1- Handbook of Telecommunications Economics, S.K. Majumdar et. al., North Holland, 2006.
- 2- Lecture notes.
- 3- Service Management: Operations, Strategy, Information Technology, James Fitzsimmons, Mona Fitzsimmons, 6a. Edição, McGraw-Hill, 2007.

**17. Complementary bibliography:**

- 1- Gestão Estratégica de Serviços, José F. Nogueira, 1st edition, Atlas, 2008.
- 2- Gestão de Serviços – Casos Brasileiros, Vários Autores, 1st edition, Atlas, 2013.
- 3- Next Generation Telecommunications Networks, Services, and Management, Thomas Plevyak, Veli Sahin, 1st edition, Wiley-IEEE Press, 2010.
- 4- The Economics of Mobile Telecommunications, Harald Gruber, 1st edition, Cambridge University Press, 2008.
- 5- Telecommunication Network Economics: From Theory to Applications, Patrick Maillé, Bruno Tuffin, Cambridge University Press, 2014.