Course guides
320086 - GPI - Innovation Project Management

Last modified: 29/05/2020

Unit in charge: Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 702 - CEM - Department of Materials Science and Engineering.

Degree: BACHELOR'S DEGREE IN TEXTILE TECHNOLOGY AND DESIGN ENGINEERING (Syllabus 2009). (Compulsory subject).

Academic year: 2020 **ECTS Credits:** 6.0 **Languages:** Catalan, Spanish

LECTURER

Coordinating lecturer: Ventura Casellas, Heura

Others: Camps Roca, Vicenç

PRIOR SKILLS

· Knowledge of business organization
· Knowledge of materials and textiles
· Knowledge of textile finishing processes

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
CE21. TEX: Ability to develop textile products and industrial manufacturing.

TEACHING METHODOLOGY

Combines theoretical sessions given by the teacher and sessions for discussion of case studies, with individual and group work performed by the student:
· Theoretical sessions
· Guided discussion sessions of individual or group works
· Individual work

LEARNING OBJECTIVES OF THE SUBJECT

· To train students to participate in the planning of business strategies based on product innovation and textile processes. Improve the competitiveness of the textile industry in today's environment of global economy and delocalized production.
· Provide the student with the skills and knowledge necessary to create the framework that allows innovation in the company and to develop and apply the innovative ideas that are generated.
· To train professionals to: analyze, disseminate and implement innovations in textile organizations; know the key aspects for implementation of innovation management systems; optimize processes and estimate economical resources need for supporting innovation activities.

STUDY LOAD

Type	Hours	Percentage
Hours large group	30,0	20.00
Hours small group	30,0	20.00
Self study	90,0	60.00

Total learning time: 150 h

CONTENTS

TOPIC 1. The innovation culture

Description:
1.1 What is innovation?
1.2 Why we should be innovate?
1.3 Barriers to innovation

Full-or-part-time: 28h
Theory classes: 4h
Laboratory classes: 4h
Self study : 20h

TOPIC 2: Kinds of innovation

Description:
2.1 Planning vs emerging
2.2 Incremental vs radical
2.3 According to nature

Full-or-part-time: 14h
Theory classes: 2h
Laboratory classes: 2h
Self study : 10h

TOPIC 3: Management tools and their application in textile industry

Description:
3.1 Process map
3.2 DAFO
3.3 CANVAS
3.4 Kaizen
3.5 Brain storming
3.6 Ishikawa diagram
3.7 Six thinking hats
3.8 Six Sigma

Full-or-part-time: 108h
Theory classes: 24h
Laboratory classes: 24h
Self study : 60h

GRADING SYSTEM

· Exam: 20%
· Deliverables of the case studies: 30%
· Final report: 50%.

For those students who meet the requirements and submit to the reevaluation examination, the grade of the reevaluation exam will replace the grades of all the on-site written evaluation acts (tests, midterm and final exams) and the grades obtained during the course for lab practices, works, projects and presentations will be kept.
If the final grade after reevaluation is lower than 5.0, it will replace the initial one only if it is higher. If the final grade after reevaluation is greater or equal to 5.0, the final grade of the subject will be 5.0.

BIBLIOGRAPHY

Basic:
- Dyer, J.; Gregersen, H.; Christensen, C.M. El ADN del innovador: claves para dominar las cinco habilidades que necesitan los innovadores. Barcelona: Deusto, 2012. ISBN 9788423412433.
- Kotter, J.P.; Cohen, D.S. Las claves del cambio: casos reales de personas que han cambiado sus organizaciones. Bilbao: Deusto, 2003. ISBN 9788423420346.
- Miraftab, M.; Horrocks, A. R. Ecotextiles: the way forward for sustainable development in textiles. Boca Raton: Woodhead/CRC, 2007. ISBN 978-1- 84569-214-8.
- Shishoo, R. Plasma technologies for textiles. Boca Raton: Woodhead/CRC, 2007. ISBN 9781420044508.
- Gordon, S.; Hsieh, Y-L. Cotton: science and technology. Boca Raton: Woodhead/CRC, 2007. ISBN 9780849391019.
- Brown, P.J.; Stevens, K. Nanofibers and nanotechnology in textiles. Boca Raton: Woodhead/CRC, 2007. ISBN 9781845691059.

Complementary:
- Goldratt, Eliyahu M; Cox, Jeff. La Meta: un proceso de mejora continua. 3ª ed. rev. Madrid: Díaz de Santos, cop. 2005. ISBN 847978718X.
- Goldratt, Eliyahu M. No es cuestión de suerte. Madrid: Diaz de Santos, cop. 1995. ISBN 8479782005.