

320152 - TDOP - Workshop in Plastic Objects Design

Coordinating unit: 205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering
 Teaching unit: 702 - CMEM - Department of Materials Science and Metallurgy
 Academic year: 2019
 Degree: BACHELOR'S DEGREE IN INDUSTRIAL DESIGN AND PRODUCT DEVELOPMENT ENGINEERING (Syllabus 2010). (Teaching unit Optional)
 ECTS credits: 6 Teaching languages: Catalan

Teaching staff

Coordinator: Miguel Sánchez Soto

Degree competences to which the subject contributes

Specific:

1. DES: Capability for packaging design .
2. DES: Knowledge of design tools for their use in design projects and product redesign.
3. DES: Advanced knowledge in 3D modeling.
4. DES: A good command of the tools related to the design process.

Transversal:

5. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.
6. TEAMWORK - Level 3. Managing and making work groups effective. Resolving possible conflicts, valuing working with others, assessing the effectiveness of a team and presenting the final results.
7. EFFECTIVE USE OF INFORMATION RESOURCES - Level 3. Planning and using the information necessary for an academic assignment (a final thesis, for example) based on a critical appraisal of the information resources used.

Learning objectives of the subject

Study load

Total learning time: 150h	Hours large group:	30h	20.00%
	Hours medium group:	0h	0.00%
	Hours small group:	30h	20.00%
	Guided activities:	0h	0.00%
	Self study:	90h	60.00%

320152 - TDOP - Workshop in Plastic Objects Design

Content

(ENG) TEMA 1: Introducció al disseny de peces de plàstic	Learning time: 16h Laboratory classes: 2h Guided activities: 4h Self study : 10h
(ENG) TEMA 2: Introducció a les propietats dels plàstics. Selecció materials	Learning time: 26h Theory classes: 8h Guided activities: 4h Self study : 14h
(ENG) TEMA 3: Directrius per al disseny optimitzat de peces	Learning time: 16h Theory classes: 4h Guided activities: 2h Self study : 10h
(ENG) TEMA 4: Tècniques de transformació de materials plàstics: Motlles i matrius	Learning time: 60h Theory classes: 12h Guided activities: 12h Self study : 36h
(ENG) TEMA 5: Utilització de tècniques CAE de simulació avançades	Learning time: 16h Laboratory classes: 4h Guided activities: 2h Self study : 10h
(ENG) TEMA 6: Presentació projectes	Learning time: 16h Theory classes: 4h Guided activities: 2h Self study : 10h

320152 - TDOP - Workshop in Plastic Objects Design

Planning of activities

(ENG) PROJECTE EN GRUP D'AVALUACIÓ CONTÍNUADA

Qualification system

Delivery 1 (QFD): 20 %
Project delivery 2: 20 %
Project delivery 3: 20%
Project delivery 4: 20%
Final presentation and exposition: 20%

Bibliography

Basic:

Menges, G.; Michaeli, W.; Mohren, P. How to make injection molds. 3rd ed. Munich: Hanser, 2001. ISBN 1569902828.

Gastrow, Hans. Moldes de inyección para plásticos: en 100 casos prácticos. 2ª ed. Barcelona: Plastic Comunicación, 1998. ISBN 848745402X.

Rao, Natti S.; Schumacher, G. Design formulas for plastics engineers. 2nd ed. Munich: Hanser, 2004. ISBN 3446226745.

Others resources: