62944 - Communication and presentation of product

Información del Plan Docente

Academic Year	2018/19
Subject	62944 - Communication and presentation of product
Faculty / School	110 - Escuela de Ingeniería y Arquitectura
Degree	562 - Master's in Product Development Engineering
ECTS	6.0
Year	1
Semester	First semester
Subject Type	Compulsory
Module	---

1.General information

1.1.Aims of the course

The subject and its expected results meet the following approaches and objectives:

- Complement the training of bachelors, especially Engineering Product Development and Design, with learning specialized and innovative visual techniques, not included in their previous training.

- Provide the student resources for immediate implementation in their working environment, professional or researcher.

- Strengthen its ability to use a visual language in the exposure of product characteristics and technical documentation derived from it.

- Promote the creative use of ICT, the new media exposure and communication.

1.2.Context and importance of this course in the degree

This is a subject ECTs 06 compulsory credits of the first half of the Masters in Product Development Engineering. Its contents are practical and reviewing technologies complement other subject of the Master as "Diseño avanzado de producto"(62943), enhancing the latter stages of the production cycle or aftermarket unrevised in it.

Acquired knowledge and skills can be useful in research or application of materials of the Master as "Dirección de la creatividad en el entorno profesional" (62941) and "Diseño de servicios" (62940) . Given its strong visual character and understanding that Internet is the core platform for the dissemination and product promotion and expansion of "apps" is recommended that students complement their training with electives "3D Modeling with smart geometry" (62952) and " Internet of things"(62949)

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1.3.Recommendations to take this course

The student must have academic knowledge in graphic matters related to the product development, graphic design, layout or graphic mockups, recreation, conceptualization and marketing of industrial or consumer products. It is also desirable to have basic training in matters related to the corporate identity and techniques related to the launch of new products. It is recommended to bachelors degrees such as engineering in product development, other Engineering, Architecture or graduates in other creative fields oriented business world.

The course is designed for students to develop a continuous work throughout the course, structured tasks that make a real case of presentation of a product. In this sense, class attendance and monitoring of the proposed practical exercises are aspects that will help make better use of the subject and as a result to the achievement of the objectives. It is interesting that the student has personal attitudes such as initiative and creativity.

2.Learning goals

2.1.Competences

To pass the course, students will be more competent to ...

* Ability to recognize the structure and methods involved in the presentation of a product and implement the best to be convincing depending on the receiving of information resources.

* Capacity to use digital techniques to product render under realistic physical conditions (optical, environmental, ...).

* Ability to build digital models and virtual prototypes that allow data visualization using various unconventional presentation environments and cross platform.

* Capacity to use different tools for the documentary offline support and leverage resources collectivization and dissemination of products on the Web.

* Ability to harness synergies and sustainable digital technologies for expanding their capacity for product development or complex product maintenance.

2.2.Learning goals

The student, for passing this subject, should demonstrate the following results ...

1. Knowledge of techniques for manipulating digital graphics heterogeneous resources and create complex visual compositions and information diagrams or graphic results. Ability to manipulate graphics information and results visualization (computer graphics) optimal to understand any of the characteristics of a product or its functions and use.

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2. Ability to producing digital models that integrate virtual prototypes in real scenarios recreating outline certain parameters, conditions of use or state of the materials.

3. Capacity to produce professional, effective, innovative and audience consistent electronic presentations.

4. Ability to adapt a visual exposure to various communication platforms or choose the optimum.

5. Capacity to coordinate projects that integrate more complex form the previous results.

2.3.Importance of learning goals

1. Learning outcomes of this course are essential for the exhibition and distribution of products in advertising campaigns, project presentations advanced R & D + i or in the aftermarket stages of a product.

2. The revised by matter techniques accelerate the launch cycle stages, reducing production costs.

3. Its contents can be critical for product development engineer when competing in a project proposal aims to promote an idea

3.Assessment (1st and 2nd call)

3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

The student must demonstrate that it has achieved the intended learning outcomes through the following evaluation activities:

1 OPTION A: Continuous Assessment

REVIEW CASE STUDY RESOLVED BY TASK: Students must perform six tasks are integrated in a particular case. These tasks determine the understanding of the subject and ability to apply learning and a subject chosen by him and supervised by teachers. They are individual. Account for 75% of the total score.

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EXHIBITION of project or CASE RESOLVED: Collects and adapts the above tasks for public exhibition in digital platform support on selected education (MOODLE). This phase allows pooling of individual initiative of each student. It is 25% of the grade.

The total score is evaluated on 10 points. To approve it must obtain more than 5 note.

2 OPTION B: Review

For those students who want this option or not exceeding the minimum qualification in the form of continuous assessment (5/10), a written test that consign 100% of the qualification to hold within the established exam schedule will be made by the Center .

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

The methodology followed in this course is oriented towards achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as lectures, practice sessions, case studies, tutorials, group work, autonomous work, and assessment.

4.2.Learning tasks

The course includes the following learning tasks:

- LECTURES (20 hours). The fundamental contents of the course are presented. This activity will take place in the classroom by using electronic files, offline and online creative applications via Internet or through lectures by company specialists.
- PRACTICE SESIONS (16 hours). Students will solve problems and cases similar to those required for assessment.
- COMPUTER LAB SESSIONS (24 hours). 8 sessions of three hours each. Students will need a special visual software installed on their personal computer (laptop), in a classroom with WIFI access and under the supervision of the teacher.
- TUTORIALS (5 hours). The tutorials will be carried out throughout the course in the teacher's office. It should be scheduled via e-mail or direct coordination through MOODLE.
- GROUP WORK PRESENTATION (5 hours). It is a public presentation done on digital media.
- AUTONOMOUS WORK (80 hours). Study of concepts and solving of tasks.

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- ASSESSMENT. If applicable. It will consist of a written test in the exam period established by the Center.

4.3.Syllabus

The course will address the following topics:

- SECTION 01: Projective aspects of a presentation. Presentation Graphic Design and development of script. The audience and stage. Storytelling methods. Multi-platform visual resources. Catalogs, manuals and eBooks on interactive media.
- SECTION 02: Performance and physical planning scenarios.
- SECTION 03: Virtual customers and instructors.
- SECTION 04: Hiper-display. Photorealism and virtual product. Augmented Reality for product presentation.
- SECTION-05: Digital mockups and product digitalization. 3D Scanning optimization.
- SECTION 06: Dynamic digital models for functional or operational conceptualization. Advanced Data Visualization and spelling information. Exhibition graphics. Real-time computer graphics. Visual information networks. Collectivization.

Computer lab sessions:

- Prac-01: Multiporpose and multiplatform electronic presentation with data visualization.
- Prac-02: Virtual set modeling for product presentation.
- Prac-03: Digital mockup. Product scanning with images.
- Prac-04: Static hyper realistic visualization: Comercial set for product presentation.
- Prac-05: Dinamic hyper realistic visualization: Product-costumer interaction.
- Prac-06: 3D Storytelling.

4.4.Course planning and calendar

The tasks must be submitted on the scheduled deadlines decided by the students, more compatible with their other courses, which will be communicated in advance.

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course, will be provided on the first day of class or please refer to the EINA website and Moodle.

In the official academic calendar they are reflected class periods and dates Deadline for submission of assignments. The theoretical and practical classes, as well as places to teach them are reflected in the schedules of the website of the School of Engineering and Architecture (EINA.unizar.es).

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Relevant information will be communicated to students through the platform MOODLE teaching assistance that will support organizational and teamwork environment.

4.5.Bibliography and recommended resources

- Krum, Randy: "Cool infographics: Effective Communication with Data Visualization and Design" 348 pages. Editor: John Wiley & Sons Inc; Edition: 1 (November, 2013). ISBN-10: 1118582306.
- Nussbaumer Knaflic, Cole: "Storytelling with Data: A Data Visualization Guide for Business Professionals". 267 pages. Editor: John Wiley & Sons; Edition: 1st (December 2015). ISBN-10: 1119002257
- Wright, Steve: "Digital Compositing for Film and Video". 512 pages. Editor: Focal Press; Edition: 3rd (May 2010). ISBN-10: 024081309X.
- Birn, Jeremy: "Digital Lighting and Rendering (Voices That Matter)". 464 pages. Editor: Addison Wesley; Edition: 1st (November, 2013). ISBN-10: 0321928989
- Parisi, Tony: "Learning Virtual Reality: Developing Imersive Experiences and Applications for Desktop, Web, and Mobile". 166 pages. Editor: O'Reilly Media; 1st edition (November 2015). ISBN-10: 1491922834
- Zemichael, Yodahe: "Digitalization of Objects by Photogrammetry" 224 pages. Editor: LAP Lambert Academic Publishing (August 2012). ISBN-10: 365918571X
- Schmalstieg, Dieter; Hollerer, Tobias: "Augmented Reality (Usability)".528 pages. Editorl: Addison Wesley; 1st edition (June 2016). ISBN-10: 0321883578.

Additional resources:

- The references of the subject are delivered to students during the semester, the necessary links appearing on the MOODLE 2 platform