

Authors

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Suitability of this case to the ApprEnt definition of HEA

Workplace/
training



Mentoring



Remuneration



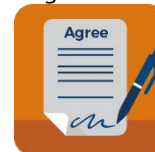
Formal
programme



Certification



Contract/
Agreement



Evaluation of how the programme/practice reaches the following goals
Scale: 1 = not at all; 2 = very little; 3 = somewhat; 4 = well; 5 = very well

	1	2	3	4	5
i. Enhances relevant working life skills and qualifications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. Promotes professional growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Develops learning environment practices as a whole	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Develops work-based learning practices and materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v. Improves work performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
vi. Improves tutoring and mentoring practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
vii. Enhances University-Business collaboration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
viii. Showcases potential aspects for programme standardisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Title

The CTeSP degrees of ESAN (Higher Professional Technical Courses)

Description

Model

Portugal's Higher Education Sub-systems

The University of Aveiro (UA) integrates the two subsystems of higher education in Portugal: university education and polytechnic education. In both subsystems, there are courses that offer students opportunities to learn by doing, either through partnerships with entities outside the University, through the provision of curricular and extracurricular internships or through projects.

In addition to the Bachelor's, Master's and Doctoral programs, the University offers programs of Higher Professional Technical Courses (CTeSP) taught in its Polytechnic Schools. Two of these schools are located outside the Municipality of Aveiro and inserted in areas with a strong industrial component, helping to widen the spectrum of the intervention of the University and to enhance the synergies that can be created with the business sector. The contact with the employers allows to adjust the training according to the needs of the labour market.

Higher Education Short Cycles

In the case of the CTeSP, which are short courses of studies taught exclusively in polytechnic higher education (Higher Education short cycles, do not award a degree but a level-5 diploma within the National Qualifications Framework) the courses offered with this typology are developed in collaboration with the companies of the region and adapted to the specific needs of the labour market of the region where it is inserted. These courses have a duration of four curricular semesters of student work (120 ECTS), and the last semester is devoted to the internship, with a length of 680 hours within a company, and its main objective is to apply, in a professional context and in an integrated and interdisciplinary way, the knowledge acquired throughout the different components of the training. In some UA degrees, there are also internships, the length of which may vary (e.g. from 12 to 28 ECTS for Bachelor's degree - 180 ECTS), and whose main objectives are to provide students with learning in the work context and to bring them as close as possible to business realities.

Support and Objectives of the Training

Whatever the type, of course, the student will be accompanied by a teacher from the UA and a counsellor to be appointed by the host organization where the training takes place. Also for the Master's courses (300 ECTS) is now foreseen the possibility of the student choosing to either do a dissertation, develop a project, or perform a curricular internship (30 to 54 ECTS). The latter encompasses 1000 hours of work in the enterprise. As with the other levels of courses, the objective is for the student to apply in a company context the knowledge acquired throughout the Master's, thus also developing applied scientific research.

In the UA, in addition to the curricular stages, other initiatives are developed along with the courses aiming to bring the students closer to the business reality. Examples of these initiatives are the mentorship plans for the degrees in Retail Management and Quality Management, Public Sector and Local Government Management, Office Management, and Business Communication. These degrees include a curricular internships and extended partnerships with, respectively, the Jerónimo Martins Group, the Intermunicipal Community of Aveiro Region, the Industrial Association of Aveiro District and the Business Association of Águeda, which, in addition to the placement of trainees, make it possible to implement tutoring programs and collaborates in the promotion of the undergraduate degrees.

From our perspective one of the strongest points of this approach is that it allows students to get in

contact with the labour market earlier than usual, so that they may not only gain experience from actual working contexts but also learn directly from the professionals that are tutoring them. We think that one of the aspects to improve will be the relationship between the school and some of the companies, mostly in order to allow the whole process to unfold naturally and without glitches.

Best practice

Promotion of best practices through research and development projects

The School of Design, Management and Production Technologies Northern Aveiro, ESAN, promotes the transfer of knowledge and technology to society, as well as the fostering of cultural and humanistic activities for and in close interaction with the surrounding community.

ESAN is within the so-called "Entre-Douro-e-Vouga" (EDV), assuming a strong regional component.

Having been considered one of the most competitive Portuguese regions, EDV is one of the best positioned national regions in terms of international value and export orientation; however, there appears to be a need to increase its human and technological potential so as to improve its productivity levels. Moulding, car components, metalworking, footwear, as well as both the cork and the food industries are crucial sectors insofar as the regional and national economies are concerned. Nowadays, ESAN acts in the areas of technologies and production systems, namely in additive manufacturing, design and product development, industrial organisation, and information and communication systems, either by means of its education offer or through research and development projects.

Networks of Specialised Education Units

There has been great involvement on the side of many partners, which make part of a network of units of specialized education. Municipalities, Associations, Schools, Technological and Educational Centres and Companies are examples of partners which have been working with ESAN since the very first moment.

Currently, the Northern Aveiro Programme is present in the following municipalities:

- Albergaria-a-Velha;
- Espinho;
- Estarreja;
- Oliveira de azeméis;
- Ovar;
- Sever do Vouga;
- S. João da Madeira;

The Network of Specialized Education Units of the Aveiro Norte Program started working in 2002, within the legal framework established via the Order no. 6734/2002 by the State Secretary of Higher Education, officially published in the so-called "Diário da República" no. 76, series II, on 1 April 2002.

At present the Network comprises the following institutions:

- Ovar Forma - Empresa Municipal para o Ensino e Formação – Ovar;
- Sanjotec - S. João da Madeira;
- José Macedo Fragateiro High School – Ovar;
- Serafim Leite High School - S. João da Madeira;
- Soares Basto High School - Oliveira de Azeméis;
- Sever do Vouga High School - Sever do Vouga;
- Alb.-a-Velha High School - Albergaria-a-Velha;
- Manuel Gomes de Almeida High School – Espinho.

The designed education proposals aim at responding not only to the local initial education needs, but

also to the updating of companies' senior staff and services deployed in the region, by means of the Higher Professional Technical Courses (CTeSP).

Example of the abovementioned study programmes:
Product Design and Technology

The cycle of studies constitutes a distinct and unique offer, directed towards product innovation, design, development and optimization. Articulates with other training offers, Technological Specialisation Programmes, Professional Superior Technical Programmes, Master's (second cycle) and Doctoral (third cycle) programmes, in the area of product design and development, in a range of complementary skills that extend from conceptual design to product and process engineering, either at University of Aveiro or other institutions. Promotes the preparation of professionals with a multidisciplinary, highly technical, profile in Product Development.

CTeSP ongoing - Software Development; Pruducat Design; Moulds; Mectronics and Production Systems; Automation, Robotics and Industrial Informatics; Industrial Processes Managment

Feedback from users

Internship Supervisor praises student Fernando Martins - CTeSP in Mechatronics and Production Systems (ESAN)

"I advise Plastaze's employees to have the same training as Fernando" (28.7.2017)

"Fernando was a trainee who integrated very well in the technical team of Plastaze. He demonstrated having acquired fundamental knowledge in programming, automation and pneumatics. The training given was important for rapid professional growth" says Pedro Andrade, company supervisor of the internship of Fernando Martins in Plastaze, of the Simoldes Group.

The internship Company supervisor, in charge of Process Engineering at plastics Injection Company of Oliveira de Azeméis that works for the automotive industry goes even further: "I advise Plastaze employees to have the same training as Fernando. When I am asked by collaborators of Plastaze who are interested in integrating technical teams I give Fernando's example and advise them to speak with him and enrol in the course."

Fernando Martins shows his satisfaction during the internship due to the way he was received at Plastaze. You see that the internship helped him integrate into the industrial environment and during the six months that the internship lasted he had the opportunity to apply "most of the areas covered during the course". On the other hand, he states: "The Company collaborated a lot, giving me the opportunity to show and put into practice the knowledge acquired and allowed me to evolve in the training. In the end, there was no need to look for a job because the company proposed me to continue the work". Not only did he continue to work for the company, but he continued his studies, now at the Technologies and Production Systems Bachelor Degree, also at ESAN.

Rui Aguiar, a recent graduate of ESAN, graduated from the PTC Group
Product Design at ESAN

Strength in the recruitment process (27.9.2017)

"Given the history of PTC GROUP with students of this course and the knowledge they have acquired, certainly such training is a strong point in the recruitment process." Tiago Monteiro, CEO of PTC Group, in Oliveira de Azeméis, comments on the formation in Product Design, in the School Superior Aveiro Norte (ESAN) of the University of Aveiro. He thus refers to Rui Aguiar, a finalist of the CTeSP, a trainee whom he accompanied, and then an employee.

The PTC Group seeks human resources with a multidisciplinary and multipurpose profile that serves the demanding conditions of the car industry market, explains Tiago Monteiro. "We believe that the

TeSP course in Product Design can offer this profile to their students, in addition to the technical knowledge related to materials, technologies and manufacturing. With the constant evolution of the market, we also look for human resources with creative skills, capable of creating innovative solutions, but at the same time real and coherent with the needs of the market. "

Both taking into account the history of PTC GROUP with the students of this course, and knowing the skills acquired, Tiago Monteiro says: "Certainly training is a strong point in a recruitment process." Therefore, over the last years, this multinational with branches in Mexico and Brazil, received, in its facilities of Oliveira de Azeméis, ESAN trainees from Product Design (CTeSP) courses and Product Design and Technology (bachelor's degree), as well as from other educational institutions, and it remains available to further welcome trainees with training in Product Design, Mould Design, Mechanical Engineering, Robotic Automation, or Informatics Industrial.

Relevance and Transferability

N/A

Comments

N/A