

The role of internships in a higher education institute

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ABSTRACT

Industrial placement or internship is becoming part of an increasing number of higher education courses, ranging from engineering to accounting and social work, in the past decade. The paper analyses internship practice at a technological university in the island of Crete, in the south of Greece, where internships are part of every undergraduate course offered, and documents this experiential-learning process for students, academics and business managers alike. This work details the goals and structural elements of internships and its characteristics relating to employment conditions, and procedures for the academic institution and company alike, and lists the assessment tools of students and the process itself. It also describes the different approach to internships for each of the three stakeholders involved: students, managers and university academic staff, based on the long experience of academic internship supervisors of the institute. The findings of this paper are based on an enhanced internship project that the Greek institute is running and reports preliminary results of this programme. In addition, suggestions are made for future development and monitoring of internship programmes to achieve beneficial outcomes for all stakeholders.

Keywords: industrial placement, higher education

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1. INTRODUCTION

Industrial placement or internships are beginning to be considered vital to be included in a higher education curriculum. More students and companies are aware of the benefits of practical experiences obtained during internships by making part of a course programme. It has been reported¹ that students increasingly demand internship programmes so they can acquire professional skills before looking for a job while at the same time, companies train students in their organization and use internships to reduce uncertainty in the hiring process after graduation. Thus, internships serve the needs of three parties: students, academic institutions and companies.

There are many advantages for all three stakeholders by forming a partnership between them. However, it should be pointed out that each party views benefits differently,² while having different needs, hopes and values. These differences do exist and should be recognized in the implementation of a successful internship programme.

This extracurricular experiential learning practice has been regarded in literature as a way for undergraduate students to gain real-life experiences,³ for training purposes,⁴ and as a tool to identify long-term interests and goals.⁵ By going through internships, undergraduate students can become self-sufficient, motivated, and determined. They begin to clearly identify career interests, while increasing their reported satisfaction with their undergraduate course.⁶ Internships can be seen as a sensible pedagogical tool which provides an important experience.⁷ It has been reported⁸ that undergraduate students use internships to practice what they have learned during studies and to obtain new skills, and that internships can provide the opportunity for further learning.⁹

Over the last decades public debates¹⁰ on educational policy have drawn the attention to changes required in higher education to produce graduates better equipped for the modern working environment, stressing the need for acquiring transferable skills and employability during studies. As such, the development of links with companies is perceived as an essential part of this process at both undergraduate and at postgraduate levels. Students get some useful career insights from their improved understanding of the working environment. It has long been accepted in professional degree courses, such as medicine and engineering, that training in the work place must be an obligatory part of them.

2. THE TECHNOLOGICAL EDUCATIONAL INSTITUTE OF CRETE

The higher education establishments of Greece have been increased both in numbers and diversification with the inclusion of the Technological Educational Institutes (TEI) in their ranks. TEI, a Greek acronym for educational establishments of technology, was initially a further education establishment placed between secondary education and universities. These establishments were characterised by a course length, which was shorter than that of the universities, while offering a wider range of courses, including subjects not offered by old universities.

TEIs were included in the higher education of Greece in 2000 with a law, which in effect harmonised Greece with the rest of Western Europe, where similar changes had taken already place in the 1990s. As the old polytechnics of UK were succeeded by universities, so in Greece TEIs are considered academically equal with universities, at least by law. The legal change was accompanied by a moderate increase in course length, where the three-and-a-half years long study was increased to four years of study. This change called for a redesign of the curriculum of all courses. The number of subjects taught increased and this change provided a chance to enhance existing course syllabuses and adapt to industrial needs with more specialized subjects.

A typical course formally and rigorously teaches students with the principles of the discipline to be studied in its first two years. Following this, students may have a choice of areas of specialisation to choose from. In addition, students have to complete a final project, where a thesis has to be submitted and have to be orally examined on it at the end.

3. INTERNSHIP PRACTICE IN A TECHNOLOGICAL EDUCATION INSTITUTE IN GREECE

As part of the academic programme, students are required by law to get a six month placement with a company before graduating. As students participate in internships they gain real work experience, which not only benefits employers but also provides a valuable complement to university education and an input to job counseling.

Internship places can be in private or public firms and in the institute laboratories, both in Greece and abroad. In every case, internship places are required to be approved by a departmental committee

to make sure that work will be in a relevant area to the degree studied and the appropriate professional experience will be offered to the student. In the case of the institute's laboratories, a small number of selected laboratories participate in the internship programme, where the placed student will get professional experience from the consultancy or research work that these laboratories do for customers or from research contracts. It is usual for large private and public firms to announce their openings for internships of various disciplines in advance. Smaller firms do not usually contact the department with their openings. In the last two years, the Career Office of the Institute has been compiling a database of past and present firms that have employed students as part of their internships together with firms that have expressed their interest in the programme of industrial placement, so that students can use this information to look for internships. In every case, it is the student's initiative that will find him/her the correct placement, as he will do for a job after graduation.

Regulations state that undergraduate students need to have studied for seven semesters and have finished two-thirds of the compulsory subjects and all the specialisation modules of their courses to be able to apply for an industrial placement. There is no grade or credits allocated to a completed internship, but it remains a prerequisite to finish the degree.

There is an institute-wide Internship Office which oversees the programme and sets the rules, while departmental internship committees exist who are responsible for the running of the programme, the admission of students, communication with firms, and conclusion of the internships.

Firms and the student sign an internship contract for the internship, and undergraduate students receive remuneration for the course of the internship. It is also governed by law that the student gets 80% of the minimum salary of untrained personnel. This amount is equally shared by the state and the employer, while national insurance contributions are set at a special low rate especially for the internship contracts. The state funding is either paid to the employer who in turn pays the student at the end of the internship period, or through the ESPA Greek-European funded programme which is managed by the institute itself, in two-month installments during the placement period. The second option poses a lower bureaucratic load for the employer as it pays the student directly. A further differentiation exists for internship places in public corporations, where the student receives a much smaller amount equal to about one-third of that received at a private firm. In spite of this difference, due to economic problems that the country has been facing in the last three years, a considerable number of people do their internships in a public body, mainly due to the scarcity of openings in the private sector. Students must follow the company's rules and regulations and should follow all relevant state health and safety regulations.

The procedure to enroll in an internship is tightly regulated as the student is required to apply to the department he is coming from in advance for a specific internship place that he has been accepted to. The Internship Committee of the department reviews these and allows the internship to continue if the place is appropriate. The offer will need to have a job description which is directly related to the student's course and the company will need to have an appropriately qualified employee to supervise the intern. If, for example, an engineering student wants to become an intern in a consultancy firm, then the firm must provide consultancy engineering services at least, and not in finance, and will need to have an engineer in house to supervise the intern. Provided that these prerequisites concerning the internship exist, then the internship committee of the department assigns a member of staff to supervise the student as well. This academic supervisor is the contact point for the intern during his work and may visit the intern on site to ascertain his work, solve any problems should they arise etc. During the internship period, the student is required to keep a logbook of his activities, which includes reports from the company's supervisor and the academic supervisor as well. This is produced at the end of the internship and is kept in file by the department. The students who are sponsored by the European programme are required to provide additional information in the form of questionnaires that assess the student, his performance and his views of the programme. The employer is asked to fill similar questionnaires to assess their views of the internships programme and the student's performance. These questionnaires together with a similar form filled by the academic supervisor are part of the quality assessment programme of the internship programme.

Academic supervisors are always permanent members of staff of each department and do not receive any remuneration for their supervision or their visits to the internship firms. There is no other official reporting mechanism for the internship programme in each department, except through contact with

Table 1. Students in internships during October 2010-June 2012.

DEPARTMENT	INTERNS
DIETOLOGY& DIETOLOGY	71
TOURISM & HOTEL MANAGEMENT	86
MARKETING	28
APPLIED INFORMATICS & MULTIMEDIA	94
ELECTRICAL ENGINEERING	48
ELECTRONIC ENGINEERING	95
SOCIAL WORK	70
ACCOUNTING	105
MECHANICAL ENGINEERING	46
MUSIC TECHNOLOGY & ACOUSTICS	51
NURSING	57
CIVIL ENGINEERING	77
NATURAL RESOURCES & ENVIRONMENT	44
CROP SCIENCE	47
FINANCE & INSURANCE	42
GREENHOUSE CROPS & FLORICULTURE	64

the academic supervisor. In the rare cases, where problems with the student or the firm do arise, the head of the internship committee sees to be resolved with the aim for the student to finish his internship in time and with the minimum disruption possible. It should be noted that student assessment, student and company feedback or details of the internship remain confidential and are not included in the diploma supplement that the department issues with every degree.

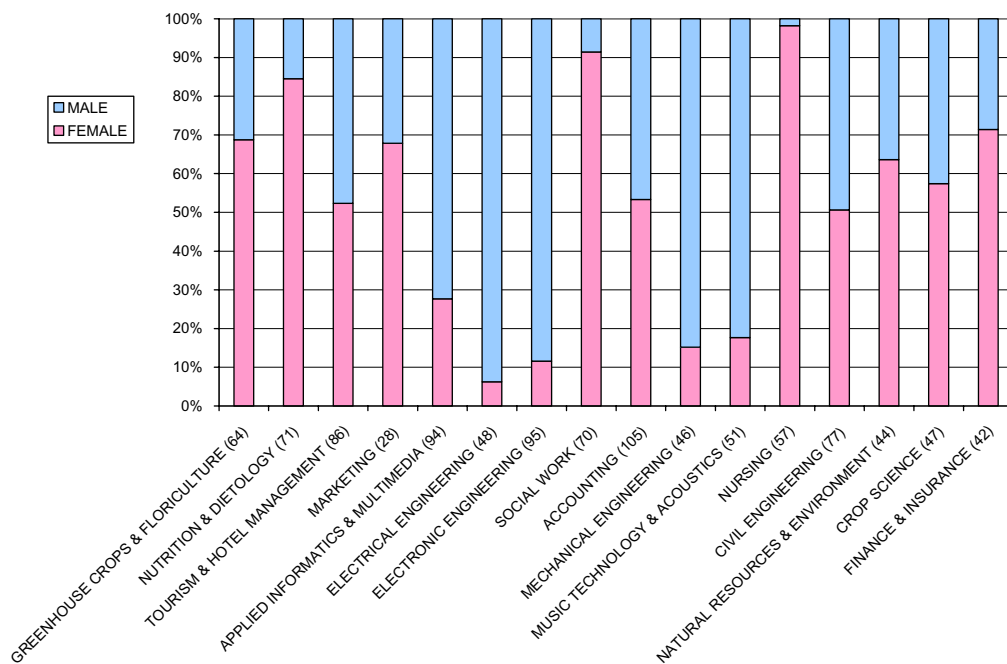


Figure 1. Gender ratio of interns per department.

4. RESULTS AND DISCUSSION

A European funded internship programme, part of a wider life-long programme for the whole country, has been running in the institute providing an alternative mean of student remuneration, travel expenses for academic supervisors, and resources for improved quality assessment of the internship programme for the whole institute. Data from this enhanced internship programme for the period October 2010 – June 2012 have been made available for this work. During this period 1025 undergraduate students were placed in six month long internships (see Table 1).

The gender of the students that took internship positions reflects the actual gender diversification in the course intake, where certain subjects like nursing, dietology and social work are dominated in numbers by female students, while others, such as engineering subjects remain a male dominated area (Figure 1).

The TEI of Crete is a regional higher education institute with its main campus in Heraklion, the largest city of the island, and four other smaller campuses in the other four districts of the island. It draws a large proportion of its student population from every corner of the island, and a smaller number from other parts of the country. The student population consists of Greek speaking students, with few foreign students attending courses run under the Erasmus European mobility programme, and who do not participate in the internship programme. This lack of spatial diversity of students affects the places where the students seek to get a placement. As it is convenient for students to look for an internship position near their home island, this affects the actual area of placement (Figure 2) for the internships, with a the majority of placements, of over 60%, being with a firm established in the island of Crete. With the exception of three courses, dietology, marketing and acoustics, possibly due to the fact that their campuses are in small towns (in the case of dietology and marketing) where the availability of relevant internship places are very limited, and in the case of the acoustics course of the scarcity of relevant places in the whole island of Crete.

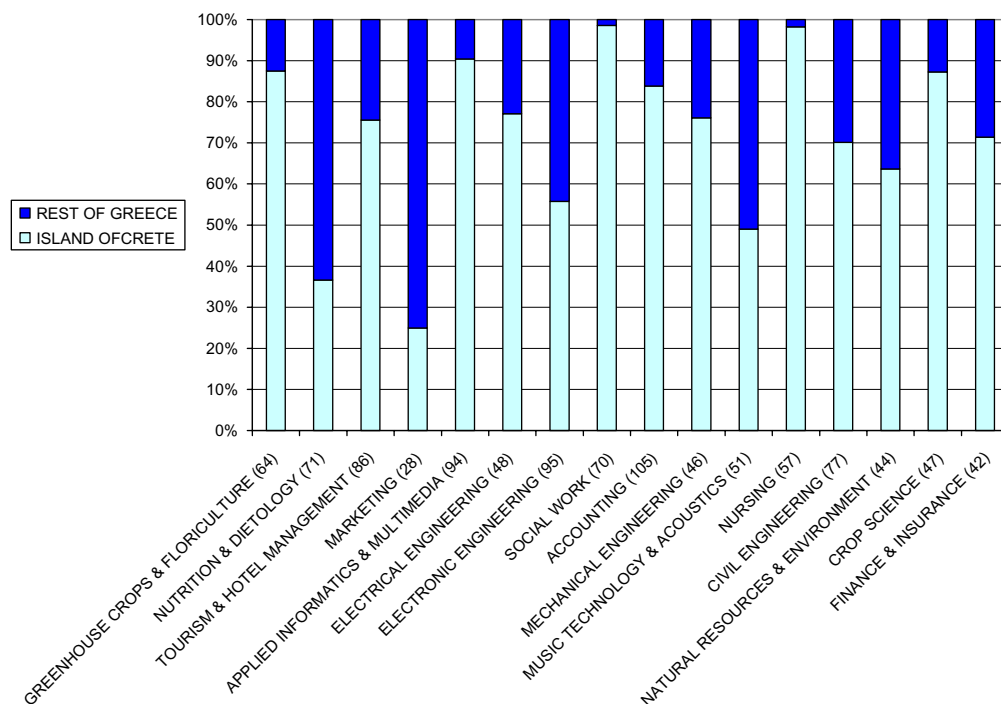


Figure 2. Area of placement per department.

The majority of interns are over 25 years old for every course with the exception of dietology, marketing, social work and applied informatics (Figure 3) reflecting the difficulty of the student to reach the end of their course. A large number of students are of average academic ability when they join the institute which makes it more difficult for quite a few them to conclude their studies in time, and reach the internship stage as well.

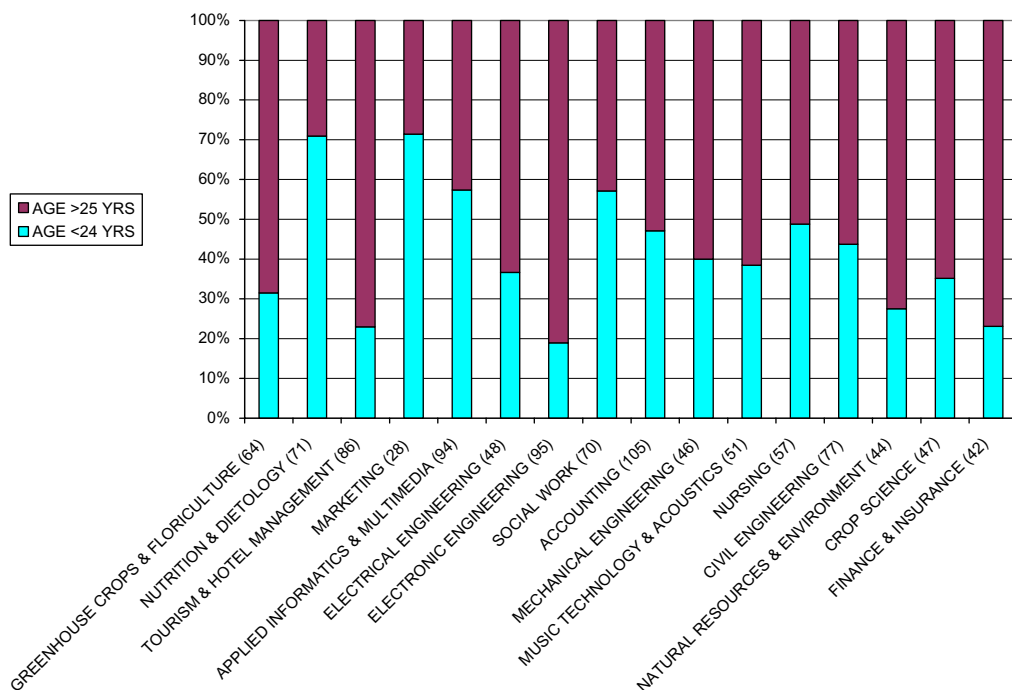


Figure 3. Age group of interns per department.

Individual departments set different eligibility criteria for funding by the ESPA programme, skewing in effect the distribution of interns to public and private firms. (Figure 4) For example, the Mechanical Engineering Department, for the period studied, allowed the ESPA programme to fund only private firm internships, and for this department the number stated for public companies places reflects this difference. The ratio of public to private firms is two to one. In other departments, like nursing, almost all of the interns are in public firms, mainly hospitals of the National Health Service. In the marketing,

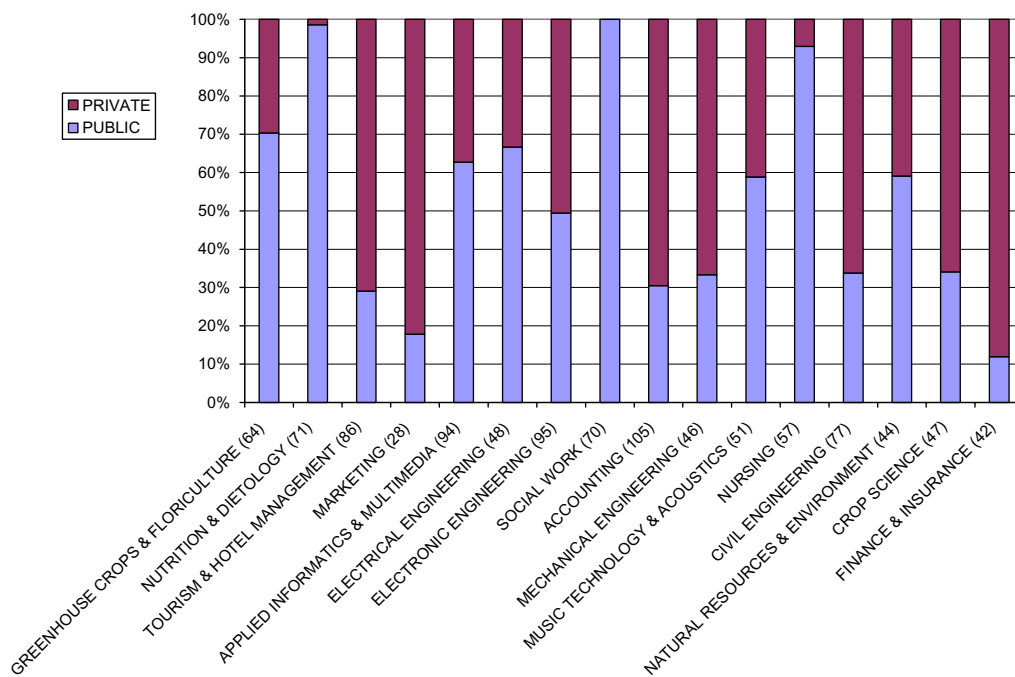


Figure 4. Internship firm type per department.

tourism and accounting courses the vast majority of undergraduates find internship places with private firms, reflecting the multitude of firms in this category, both locally and nationally.

The distribution of the intake of interns during the year appears to be seasonable (Figure 5), as a large proportion of students start their internships in the period October to December (for both 2010 and 2011) following the end of the September examination period, during Spring (for both 2011 and 2012), after the January examination period.

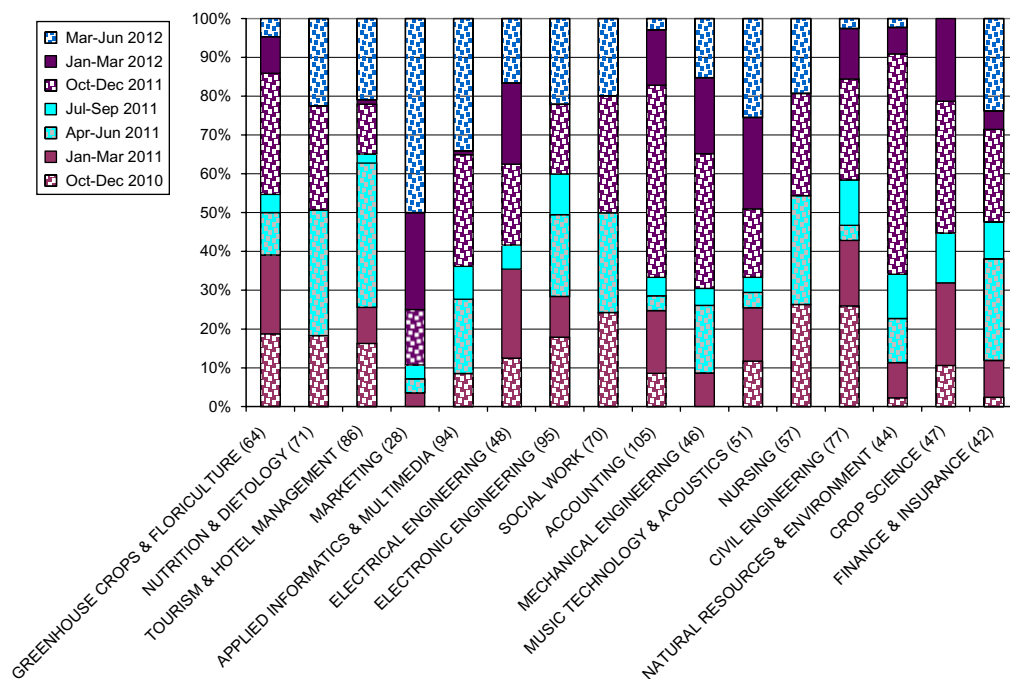


Figure 5. Internship period per department

5. CONCLUSIONS

The experience drawn from running internship programmes for all courses in the TEI of Crete indicates that it is desirable for students as well as for firms to have internships. This extracurricular experiential learning practice provides real-life experiences to students, offers training, helps them identify long-term interests and goals, improve themselves, and above all improves their employability.

It appears that undergraduate students do not show great mobility in their search for internships, and usually fit in their industrial placement in their academic schedule. In all cases, academic supervision as well as coordination with the placement firms needs to be performed actively. It would be desirable to have full time staff assigned to these duties for improved efficiency and bigger option of placements for students as well as improved departmental visibility to employers.

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