HND food quality and manufacture - a new course in Worcester

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Abstract
A new HND course has been launched in Worcester, through the co-operation of local colleges, capitalising on their strengths and experience and new facilities. The course is aimed at producing technical staff for the food and drinks industry to fill a gap in the market. Graduates will gain a good overview of the industry but have a particular focus on quality control and assurance aspects. The course is of two years' duration full-time study and includes a 20-week work placement between the two years. There is scope for part-time study and Accreditation of Prior Learning for suitable candidates. It is envisaged that the course will attract a good range of candidates from school leavers to more mature and experienced applicants, all of whom are interested in furthering their knowledge of the food industry, relevant technical skills and their employability.

Introduction
From September 1998, a new HND course, aiming to produce graduates of value to the food industry and with particular knowledge of the many facets of food quality, will be launched in Worcester. The course is a joint enterprise between University College Worcester (UCW), formerly Worcester College of Higher Education, and Pershore and Hindlip College (PHC), previously Pershore College of Horticulture and Worcester College of Agriculture which have now merged.

As neighbouring educational institutions, UCW and PHC have developed well established links over several years and currently jointly operate a number of HND and degree programmes. A growing mutual recognition of the complementary strengths of the two institutions, the acquisition of new resources, and the refocusing of already established courses, has led to the development of this new course.

Background
Pershore and Hindlip College is acclaimed as the Centre of Excellence for the food and drink industries and the cider industry. Over the last 12 years it has been engaged in providing support for UK cider producers and various sectors of the food and drink manufacturing enterprises. It has become the leading provider of professional development courses to the cider industry. Its reputation and status of excellence has led to it winning a bid for government funding and investment in new laboratory and associated process facilities. These include a teaching laboratory, well equipped for chemical and microbiological operations, and with the latest in IT support facilities, an instrumentation laboratory with extensive analytical equipment, a microbiology laboratory equipped to contain level three pathogens, a tasting laboratory and new process facilities. The new facilities now enable the college to extend its support to the whole of the food and drink sector.

The Pershore campus has an extensive range of horticultural resources and a long established expertise in this area, where students can experience primary production of a range of crops, including fruit, vegetables and an organic facility. There is also a range of small animals and a pig production unit for experience with meat products at Hindlip.
University College Worcester has a long record of teaching food studies, which were introduced in 1947 as part of the home economics curriculum for initial teacher training courses. There was, for many years, a strong link with rural science, and despite many changes over the years, the tradition of linking the curriculum to rural affairs remains a feature of Worcester. The college now offers a modular degree scheme at undergraduate level and a range of higher degrees. The teaching of food science and nutrition forms part of the curricula within biological sciences, environmental sciences, psychology, health studies and sports studies.

The West Midlands region, including the counties of Herefordshire, Worcestershire and Gloucestershire, have a long agricultural tradition with much involvement in the food industry from primary production to processing and distribution. It has been estimated that almost 20 per cent of food and drink manufacturers in the UK are based in this area. Within Herefordshire and Worcestershire the processing of drinks alone plays an important part in the local economy. The recent problems with the beef industry in particular have seen farm businesses diversifying. There has also been a notable growth in microbreweries aiming to compete with the increasing volume of beer imports. All these factors, together with a general shortage of trained food technologists, emphasise the need for educational support at the level of technical expertise which this new course will provide.

The new facilities, the complementary nature of the institutions involved and the already established expertise makes this course a strong one to serve the community with which it is already closely involved as well as providing another national and, eventually, international training opportunity. Though staff from all three campuses will be tutors, students will be mainly taught at Hindlip, where the new facilities have been built.

The course

The course was developed following market research with local employers and with the advice of industrial consultants. It aims to provide students with the understanding, associated knowledge and personal, technical and managerial skills necessary to work effectively in food processing and manufacturing industries. It also aims to develop the students' ability to identify, analyse and solve quality, technological and economic problems encountered within the food and drinks industry. An extended period of work experience is integral to the course, giving students the opportunity to relate principles to practice and to experience the working environment.

The course is modular with four modules per semester and is of two years duration in full-time mode, though also available for part-time study. Work is structured over four semesters with a 20 week work placement between years one and two. The main themes of study encompass:

- Food safety and quality assurance.
- The food chain and product development and relationships between industry, society and consumer health.
- Food microbiology, hygiene and quality control.
- Food chemistry and quality control.
- Application of new technologies in the industry.
- Business, numeracy and IT skills.
- Employability.

The modules programmed for the first semester and the first half of the second semester are designed to provide a thorough preparation for the period of work experience by introducing students to the range and scope of the food industry and the key issues of quality food production. This will include experience of the food chain as well as foundation microbiology and chemistry and an introduction to food processing technology and quality control. Practical IT and business skills associated with human resource management will be considered. These studies also underpin further work in the second year.

The industrial placement, which may be in either one or two places, will give the students the chance to develop competencies and see the relevance of their studies and how they are applied in the real world. It will increase employability and motivation for the final stages of the course and enable students to contribute more realistically to group work.

PHC has a well established database of industries in the West Midlands who are willing and able to provide placements. The work will be monitored by college tutors and industrial mentors and formally assessed using a range of criteria.

The modules in semesters three and four are designed to build upon the work
experience and the earlier college based work. They develop the technical and managerial skills of quality control and assurance including modules on sensory analysis, food microbiology and quality control, food chemistry and quality control and food quality assurance. The theme of “food chain, industry and society” is developed with modules on food and health, food and society and product development and marketing. The IT skills gained initially are further enhanced with work on control systems and applications in quality control. There is also an “industry specific” module which allows students to study in some depth one particular section of the food and drinks industry of their choice. It is envisaged that this will be vocationally motivated and enhance employment prospects.

After successful completion of the course, it will be possible to transfer into the Undergraduate Modular Scheme (UMS) of University College Worcester, and gain a BSc Hons degree after a further year if students wish. This will involve studying six more modules from a large range on offer and completing a dissertation in a suitable area. This would open up more employment prospects including further professional training such as a Postgraduate Certificate in Education, teachers of food technology currently being in seriously short supply.

Recruitment

It is envisaged that the course will attract a range of applicants from school leavers to people who already have some experience in the food industry or who wish for a change of career where employment prospects are brighter. The normal entry requirements are standard for HND courses, that is, students must have studied two subjects at A level and achieved a pass (Grade E or above) in at least one of these subjects. A science at A level would be preferred. In addition, applicants should normally have passed (Grade A, B or C) four GCSE subjects including English and mathematics. A foundation course in an appropriate area such as science and technology is also a suitable entry qualification as are alternatives such as NVQs. Accreditation for Prior Learning could be considered if candidates already have relevant experience, thus shortening the course. Applications from mature students with no formal qualifications will be considered on individual merit, the motivation and capacity to benefit from and contribute to the course being all important. Candidates are required to apply through UCAS for entry on to the course in the usual way. Any further information or advice can be obtained from the Registrar at University College Worcester, Henwick Grove, Worcester WR2 6AJ.