

Short-cycle awards in context: A review of developments relating to higher education awards' structures outside the State

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Preface

Following the publication of the outline National Framework of Qualifications in April 2003, a number of stakeholders – including the Higher Education and Training Awards Council and the Council of Directors of Institutes of Technology – expressed concerns *inter alia* about the titles determined by the National Qualifications Authority of Ireland for the two major award-types at Level 6. As part of the exploration of these concerns, the executives of HETAC and the Authority agreed to conduct some joint research, building on the research base already set out by HETAC, on the higher education and training awards' structures that operate internationally in order that more informed judgements can be made on the issue of titling the award-types at Level 6.

The following report, which is the outcome of this joint research project, aims to describe in a factual manner the higher education awards' structures obtaining in Australia, Canada, Europe, Hong Kong, Iran, the United Kingdom and the United States of America, with particular emphasis on short-cycle or sub-degree awards. In addition, it also aims to set out the educational policy contexts in which these structures operate at present. In researching and writing the report, the authors were conscious that the availability and accessibility of information on the different awards' structures varied considerably from place to place, and that it was not possible in all instances to gather and present readily comparable information and data. However, to ensure that a certain, basic level of consistency was brought to bear on the information, the authors endeavoured to follow an agreed set of terms of reference and a working research/presentation template. Both the terms of reference and template are set out in Appendix 1 and they have informed each individual section of the report.

1. Australia

1.1 Summary Description of Qualifications Structure in Australia

The Australian Qualifications Framework (AQF) was introduced in Australia in January 1995. The AQF is described as a unified system of thirteen national qualifications linking the qualifications in the three main sectors the schools sector, vocational education and training (TAFEs¹ and private providers) and the higher education sector (mainly universities). It was developed under instruction from State, Territory and Commonwealth Education and Training Ministers meeting as the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) and was fully implemented by the year 2000. MCEETYA has established an AQF Advisory Board to protect the AQF qualifications guidelines and to promote and monitor national implementation of the AQF.

The approval of institutions or the accreditation of qualifications, are the responsibility of the Commonwealth, States and Territories, which are members of MCEETYA. There are 44 Universities and Other Self-Accrediting Higher Education Institutions (established by or under relevant State, Territory and Commonwealth legislation) that have authority to accredit their own courses. Higher education qualifications other than those offered by the universities and the small number of other self-accrediting institutions is accredited by the various State and Territory Higher Education Authorities. These authorities also formally approve the providers. The State and Territory Authorities maintain registers of the private providers approved to issue accredited AQF qualifications.

1.2 Main short-cycle awards in Australia

Short cycle qualifications consist of Associate degrees (recently introduced to the framework), Advanced Diplomas and Diplomas.

- **Associate Degree:** this is a newly re-launched single sector accredited qualification (against higher education (HE) requirements) with dual sector delivery (HE & further education (FE)) . The associate degree is at an equivalent level to the advanced diploma.
- **Advanced Diploma:** This is a dual sector qualification (HE & FE), both with separate requirements.
- **Diploma:** This is a dual sector qualification (HE & FE) more extensive and popular in the FE sector.

¹ Technical and Further Education.

The AQF implementation handbook describes **vocational education and training** qualifications as qualifications based on nationally endorsed competency standards (where they exist) or on competency standards developed by relevant industry, enterprise, community or professional groups. The qualifications are aimed at certifying the achievement of learning outcomes generally identified as sets of competencies for levels of workplace performance reflected in the characteristics and distinguishing features of each qualification. The focus in the vocational education and training sector is on the capacity to directly assess the performance criteria in the competencies specified within the Training Package or accredited course.

The objectives and academic requirements of programmes in the **higher education sector** are set by the universities having regard to requirements set by peer review and the requirements of the relevant professional bodies and employer groups. Universities may establish programme advisory committees comprising a range of interested parties including practitioners, employers, community representatives and academic staff from other institutions to facilitate ongoing review of content and relevance.²

Australian Qualifications Structure

Schools Sector Accreditation	Vocational Education and Training Sector Accreditation	Higher Education Sector Accreditation
	Advanced Diploma Diploma	Doctoral Degree Master Degree Graduate Diploma Graduate Certificate Bachelor Degree Associate Degree, Advanced Diploma Diploma
Senior Secondary Certificate of Education	Certificate IV Certificate III Certificate II Certificate I	

Diplomas and Advanced Diplomas: The framework describes Diplomas and Advanced Diplomas as preparing candidates for self-directed application of skills and knowledge based on fundamental principles and/or complex techniques. These qualifications recognise capacity for initiative and judgment across a broad range of technical and/or management functions.

² AQR Implementation Handbook

The Advanced Diploma is considered to be a more specialised qualification and signifies skill and knowledge of a greater complexity and a higher level of personal accountability than is required at a Diploma level.

Diplomas and Advanced Diplomas may be gained through a wide range of pathways, and programmes of varying lengths. The dual nature of the qualifications is in accordance with which education and training sector (HE or VET) issues the qualification. The various pathways refer to: -work-based and/or institution-based training; and-recognition of prior learning (which may include training programs or an accumulation of short courses). Duration of programmes also varies according to the particular pathways and industry involved. Full-time study at a university or vocational education and training institution typically involves the equivalent of two years for the Diploma and up to three years for the Advanced Diploma.

In the vocational education and training sector Diplomas and Advanced diplomas issued recognise skills and knowledge meeting national competency standards referred to earlier (or competencies consistent with these levels where the national industry competency standards are not applicable). The number of qualifications issued in the vocational educational and training sector is far higher than the number issued by the higher education sector.

Associate Degree: The Associate degree (AD) existed prior to the introduction of the AQF. It is a newly revised sub-degree qualification introduced to the qualifications framework. It is accredited against higher education requirements. It may be offered by providers meeting the requirements set by the higher education sector in accordance with the MCEETYA National Protocols for Higher Education Approval Processes. These include non self-accrediting providers, including VEC Providers, TAFEs and private RTOs, able to meet higher education approval processes.³ This is the first time that the private providers are in a position to provide the associate degree qualification and compete alongside the US, Canadian, Hong Kong and UK competitors. All approved providers are listed on the AQF Register of Recognised Education Institutions and Authorised Accreditation Authorities in Australia.

The capacity for providers to offer qualifications from more than one sector is a well-established convention under the AQF as, for example, in the ‘VET-in-schools’ initiative where the capacity for schools to offer VET Certificates I-IV is expressed in terms of ‘responsibility for *accreditation* is with the VET sector, responsibility for *delivery* is with the provider.’

The associate degree is positioned in the AQF alongside the Advanced Diploma. It is two years in duration following qualifications referred to as year 12 or equivalent, or Certificate III or IV. The emphasis of the AD is on the foundational, research-based knowledge of an academic discipline, and it is broad-based in conceptual and theoretical

³ This refers to state regulated higher education accreditation processes.

content, and often multi-disciplinary. The generic employment-related skills are appropriate to the discipline(s).

The associate degree was added recently to the national framework, following lengthy consideration, to expand learning pathways. The learning outcomes for the associate degree orientate towards the newer evolving knowledge based occupations. One additional advantage is that the programmes leading to the award of associate degree are considered to be responsive to the international market and the globalisation of knowledge. References to the fundamental difference between the associate degree programme and the equivalent level short cycle qualifications refer to the focus of the associate degree on the foundations of an academic discipline. There is less emphasis on industry-specific workplace competency as is the case in the advanced diploma. The associate degree is a shorter-cycle higher education qualification offering a number of options. They are as an exit point at the sub-degree level, or a fully articulated pathway into the Bachelor Degree (in the same field) for further in-depth study and professional preparation, or articulation into an Advanced Diploma for specialist industry competencies. Entry to the associate degree is open to wide participation. This includes school leavers, mature age students, those with what is referred to as bridging or foundation qualifications or holders of appropriate VET Certificates. A set of proposed guidelines on the associate degree are to be finalised by Oct 2003. It is anticipated that these detailed guidelines will help with the introduction of the associate degree in 2004. The guidelines⁴ will in particular assist employers, professional associations, curriculum developers, accrediting bodies and the wider public, including students, parents, and education and training bodies, to understand factors determining the level of the qualification.

Statistics on Short Cycle Awards: The discussion paper on the review of inclusion of associate degrees in the Australian Qualifications Framework noted the uptake for the student enrolment of 2001 for short cycle awards in both the vocational education sector and the higher education sector. In 2001⁵ 65 associate degree programmes were offered in a total of nine⁶ universities. The total number of students enrolled was 2,124. The table 1a below also represents the enrolments for the same period in the two other short cycle awards of Advanced Diploma and Diploma in higher education. While only a small number of students undertake diplomas and advanced diplomas in the higher education sector a much more substantial number do so in the vocational education and training as illustrated in the table 1b below.

⁴ Proposed Guidelines on Associate Degree July 2003 (attachment B to AQFAB Report to MCEETYA)

⁵ Note Associate Degrees were not formally included in the Australian framework when it was launched in 1995 and could not therefore be provided by private colleges.

⁶ This number has since increased to 12.

Table 1a: Higher Education Student Enrolment – 2001

	Non-Overseas	Overseas	Total
Associate Degree	2,074	50	2,124
Advanced Diploma	2,788	125	2,913
Diploma	6,579	22	6,601
TOTAL – All programs	614,076	112,342	726,418

Source: DEST Higher Education Student Statistics, 2001.

Note: Figures do not include higher education private providers.

Associate degree programmes were not offered by private providers during this period.

Table 1b: Vocational Education and Training Student Enrolment – 2001

	Total
Associate Degree	–
Advanced Diploma	51,300
Diploma	173,500
TOTAL – All programs	2,119,200

Source: NCVER, 2001.

Note: Breakdown into non-overseas and overseas not available.

1.3 Policy Context for Short Cycle Awards⁷

The associate degree qualification was available in Australia prior to the introduction of the qualifications framework in 1995. The short cycle dual sector awards of Advanced Diploma and Diploma were included in the initial framework of qualifications. The possible inclusion of an Associate degree in the AQF, (following a request by the Australian Vice-Chancellors Committee (AVCC)) was part of the original terms of reference given to the AQF Advisory Board when MCEETYA introduced the AQF for progressive implementation from 1 January 1995.

In 1997 the AQF advisory board reviewed admission and recommended to MCEETYA against inclusion of the associate degree at that time. This decision gave priority to articulated Diploma/Degree and Advanced Diploma/Degree pathways under the AQF in order to maximise flexibility of access by students to the strengths of both FE and VE sectors. However private colleges were unable to offer the associate degree due to the fact that accreditation of awards was carried out only for awards that were part of the framework. The Australian Council for Private Education and Training (ACPET) argued that this situation was anti competitive as other self-awarding colleges and institutions were running the associate degree. In addition competition was present from the US, Canadian, Hong Kong and UK providers.

⁷ Main source ATTACHMENT A to AQFAB report to MCEETYA July, 10-11. Associate Degree Background Briefing paper Prepared by AQFAB for MCEETYA.

Between 1998 and 2001 an increase in associate degree courses from 45 to 65 was noted with a consistent enrolment of 2000 per annum. The AQF advisory board reconsidered the matter and in 2002 reconvened the review working party to consider inclusion of the associate degree in the framework. This was mainly due to continued interest in the qualification from the universities (and their interest in developing standard descriptors) in several jurisdictions and further submissions from ACEPT. Extensive consultations were carried out in 2002 and a final recommendation was constructed in tandem with the Commonwealth⁸ review of higher education papers. The consultants recommended not including the associate degree in the framework and highlighted a particular concern raised during consultations, namely, that there was a perception that the inclusion of the associate degree could undermine utilisation of vocational education and training pathways at the higher levels and so set back a decade of training reforms. The review working party considered the recommendation and concerns raised at the time in particular:

- the potential of an associate degree (in likely future student learning pathways) to improve recognition of skills, increase access and participation in education and training and to increase earning capacity;
- the potential of an associate degree to better position Australian providers in the export market; and
- the continued interest of some jurisdictions and the universities for retaining capacity to award an associate degree.
- the attractiveness of an associate degree in general terms in an international market.

The review working party considered reports from each of the sectors and the Commonwealth. Both sectors (HE & VET) supported the Commonwealth recommendation that the associate degree should be introduced into the AQF as a higher education-accredited qualification but with the possibility of dual provision. The Review Working Party brought its work to a close with a recommendation that AQFAB accept the Commonwealth resolution that the Associate Degree be included in the AQF. The AQFAB recommended inclusion to MCEETYA on the basis that:

- It is a higher education qualification on a single sector model.
- That vocational education and training providers may offer the associate degree following a higher education accreditation process.
- The qualification to be referred to as a higher education accredited qualification.
- AQFAB further developed the draft associate degree descriptors.⁹

⁸ Commonwealth paper on the Varieties of Learning: the interface between higher education and vocational education and training.

⁹ It is anticipated that a final draft will be completed for submission to MCEETYA out-of-session in September 2003 to allow for the Associate Degree to be offered in 2004.

One of the issues raised during the recent review of the framework was that of Dual sector awards (diplomas and advanced diplomas). Dual sector awards were seen by many VET providers as a policy commitment to enhance credit transfer and co-operative arrangements between the two sectors. They were considered and as playing an important role in enhancing the status and desirability of vocational education and training (VET) qualifications, particularly for students in schools.

In contrast it was argued that dual sector awards created confusion. In addition to issues relating to articulation and credit transfer, issues were raised about how dual sector awards actually work in practice. These concerns related to perceptions of widely differing outcomes from qualifications, lack of a clear understanding of the differences between the diploma and the advanced diploma and confusion over the differences and similarities between delivery and quality assurance in VET and in higher education. Issues were also raised about the difficulty of negotiating articulation and credit transfer between VET and higher education, and to some extent, within each sector.

2. Canada

2.1 Summary description of higher education system

Canada is a federation of ten provinces and three territories. Under the Canadian constitution, higher education - or 'postsecondary education' as it is referred to in Canada - is governed by the provincial and territorial administrations. There is no ministry or department of education and the federal government provides only indirect support to the system in the form of fiscal transfers to the provinces and funding for university research and student assistance. More than 1.2 million Canadians are enrolled in full-time or part-time post-secondary education programmes in the universities and colleges. In 2001, c. 645,000 full-time and 275,000 part-time students were enrolled in the universities, and 410,000 full-time and 91,000 part-time students were enrolled in Canadian colleges and related institutions. Since the 1980s, students outside the traditional 18-24 cohort age group have become more prominent in Canadian postsecondary education. At present, students over the age of 24 account for 25% of university enrolments, which is up from 22% in 1980¹⁰

Postsecondary education is provided by public and private institutions. The particular programmes they provide may be 'recognised', 'registered', or 'licensed' by provincial governments, or they may not be regulated in any way. The institutions award degrees, diplomas, certificates, and attestations to their learners on the completion of these programmes, depending on the nature of the institutions and the length of the programmes. At universities and university colleges, there is an emphasis on degree programmes, the majority of which are three to four years in duration. At all other institutions, the emphasis is on diploma, certificate, and attestation programmes.

Authority to use the title of 'university' is restricted to 'recognised' institutions under specific legislation in most provinces and territories. The title of 'college' is less heavily regulated however. It is restricted in some provinces, but not in others. No other titles have legal or policy-based restrictions on usage.

In most provinces and territories, use of the term 'degree' is restricted to 'recognised' degree-granting institutions. There are some exceptions. Theological colleges, for example, which are not 'recognised' by provincial governments may offer divinity degrees. Public and private degree-granting institutions may also offer certificate and diploma programs. Most public and private non-degree-granting institutions are free to use the terms 'diploma' and 'certificate'. Quebec cégeps (Collèges d'enseignement général et professionnel) grant 'attestations' for some programmes. Owing to the broad use of some institutional titles (college, institute etc.) and awards (e.g., diploma, certificate), it is considered important to understand the particular status of Canadian institutions and what mechanisms are in place to quality assure the programmes that they

¹⁰ For this information and on the system generally see 'Postsecondary Education Systems in Canada: An Overview' at the Canadian Information Centre for International Credentials: (http://www.cicic.ca/postsec/voll_overview.en.stm)

offer. Table 2a below sets out the status of Canadian Postsecondary institutions and their defining characteristics.

Table 2a Classification of Canadian Postsecondary Institutions¹¹

Institutional Title	Community Status	Recognition Status ¹	Credentials Issued ²	Government Funding
Degree-granting				
- University - University College - College - College of Applied Arts & Technology - Institute	Public	Recognised	Degrees Diplomas Certificates	Yes
- University - University College - College - Institute	Private	Recognised Non-recognised	Degrees Diplomas Certificates	Some institutions receive funding
Non-degree-granting				
- College - Community College - College of Applied Arts & Technology - Institute - Regional College - Centre - School - Cégep	Public	Recognised	Diplomas Certificates Attestations	Yes
- College - School - Academy - Institute	Private	Recognised Non-recognised licensed Non-recognised registered Non-licensed Non-registered	Diplomas Certificates	No

¹ Recognised institutions are public and private institutions established under provincial and territorial legislation. Non-recognised licensed and registered institutions are private, commercial enterprises the regulation of which emphasizes consumer protection. Non-registered and non-licensed institutions are private commercial enterprises whose programs are not regulated.

² In general, undergraduate degree programs require three or four years of full-time study. Most graduate degrees can be completed in two to five years. Associate degrees are generally two years in length, and applied degrees require four years of full-time study. In public institutions, diplomas are generally granted for successful completion of two- and three-year programs. Certificate programs usually take up to one year. In private institutions diploma and certificate programs vary considerably in length. Attestations are granted for many programs in Quebec cégeps that are up to two years in length of full-time or part-time study.

¹¹ Source: <http://www.cicic.ca/postsec/vol1.overview.en.stm>

2.2 Main short-cycle awards in Canada

As outlined above, the awards structures – including short-cycle awards - that are in place throughout the Canadian federation are determined at provincial level and are best analysed on a province by province basis. However, they are also reasonably homogenous throughout the federation, and a number of accurate generalisations can be made about them. Below the bachelor degree level, the main short short-cycle awards that are offered are:

- the undergraduate **diploma**
- the undergraduate **certificate**.

Diplomas and certificates can be acquired in all Canadian provinces and territories, and from a wide range of institutions, including Universities, University colleges, Technical Institutes, Colleges of Applied Arts and Technology, Regional Colleges, Community Colleges and Collèges d’enseignement general et professionnel. In addition, in a single state, British Columbia, the short-cycle award of **Associate Degree** is also available (see Table 2b below).

Table 2b: Major Canadian Short-cycle Awards¹²

Province/ Territory	Major Short-cycle award(s)	Typical Duration (years)	Type of Provider:
Alberta	• Diploma	1-3	Universities
	• Certificate	1 or less	Universities
	• Diploma	2	Colleges/Technical Institutes
	• Certificate	1	Colleges/Technical Institutes
British Columbia	• Associate Degree	2	University Colleges/ Colleges/ Technical Institutes
	• Diploma	2	Colleges
	• Certificate	1	Colleges
Manitoba	• Diploma	2	Universities/ Community Colleges
	• Certificate	1	Universities/ Community Colleges

¹² The table was compiled from information in the following sources: Canadian Information Centre for International Credentials (www.cicic.ca), which includes province by province overviews, including programmes and credentials offered, of postsecondary education in Canada; and ‘Provincial postsecondary systems and arrangements for credit transfer’ published by the Council of Ministers of Education, Canada, January 2003 (www.bccat.bc.ca/whatsnew.htm).

New Brunswick	• Diploma	2	Universities/ Community Colleges
	• Certificate	1	Universities/ Community Colleges
Newfoundland and Labrador	• Diploma	2/3	College of the North Atlantic; Memorial University
	• Certificate	1	College of the North Atlantic; Memorial University
Northwest Territories	• Diploma	2	Aurora College
	• Certificate	1	Aurora College
Nova Scotia	• Diploma	1/2	Universities/ Nova Scotia Community College/ Collège de l'Acadie
	• Certificate	less than 1-1	Universities/ Nova Scotia Community College/ Collège de l'Acadie
Nunavut	• Diploma	2	Nunavut Arctic College
	• Certificate	1	Nunavut Arctic College
Ontario	• Diploma	2/3	Universities/ Colleges of Applied Arts and Technology/Colleges of Agriculture
	• Certificate	1	Universities/ Colleges of Applied Arts and Technology/Colleges of Agriculture
Prince Edward Island	• Diploma	2/3	University of Prince Edward/ Holland College
	• Certificate	1	University of Prince Edward/ Holland College

Québec	• Pre-University Diploma	2	CEGEPs (Collèges d'enseignement general et professionnel)
	• Career and Professional Diplomas	3	CEGEPs
	• Diplomas, Certificates, Attestations	1	Universities/CEGEPs
Saskatchewan	• Diploma	2	Universities/ Saskatchewan Institute of Applied Science and Technology/ Regional Colleges
	• Certificate	1/2	Universities/ Saskatchewan Institute of Applied Science and Technology/Regional Colleges
Yukon	• Diploma	2	Yukon College
	• Certificate	1	Yukon College

Certificate: The short-cycle certificate is normally 1 year in duration, and available in a wide-range of disciplines, which are generally dictated by the specialisms and expertise of the providing institutions. There is, thus, considerable variation in certificate programmes from institution to institution and from province to province. In the University of Alberta, for example, the Faculty of Arts offers certificates in Globalization and Governance and in Translation Studies, while Mount Royal College in the same province offers certificates in Human Resources, Marketing Management, Computer Science, Environmental Technology and General Studies. Some certificate programmes are only open to learners already working in certain fields and are designed to help upgrade skills in areas, for example, as diverse as gerontology and computing.

Diploma: The short-cycle diploma is normally two years in duration, though there are numerous examples of three-year programmes. Like the certificate, the diploma is offered by a wide-range of institutions and in a wide range of disciplines. Many diploma programmes are designed to provide learners with the theoretical knowledge and hands-on skills needed to enter the work force and frequently feature practical experience with potential employers, and some include paid work experience. Thus, for example, in the province of Ontario, there are 25 publicly funded colleges of applied arts and technology, who run about 400 diploma, post-diploma, and certificate programmes, all of which focus on specific careers or labour market sectors. Similarly, in Québec, the

Collèges d'enseignement general et professionnel offer three year technical or vocationally-oriented programmes, which are similar to the two year diplomas offered by technical institutes and community colleges in other provinces.

Since the 1990s, both at the provincial level and at the federal level, there have been efforts made to ensure that certificate and diploma level study - and the credit gained from the same - is recognised for the purposes of transfer and progression. Provincial bodies like the College-University Consortium Council in Ontario, the Council on Post-secondary education in Manitoba, and the British Columbia Council on Admissions and Transfer, or inter-provincial bodies like the Maritime Provinces Higher Education Commission (covering Nova Scotia, Prince Edward Island and New Brunswick), work to co-ordinate, assist and encourage institutions to establish, or further develop existing co-operative arrangements amongst themselves to facilitate transfer and progression. These credit and articulation agreements would in many instances allow for the block transfer of diploma credit towards the achievement of a degree. In addition, many institutions are also signed up to the Pan-Canadian Protocol on the Transferability of University Credits, which provides for the transferability of 'first- and second-year university courses [including the final year of studies leading to a diploma of college studies (DCS) in Quebec and the university transfer courses offered by community colleges and university colleges in British Columbia and Alberta].¹³ There is considerable evidence that the system is working effectively. As of 2002, for example, there were over 600 block transfer arrangements for various certificate and diploma programmes in British Columbia, while in Alberta around 9,000 students transfer between institutions each year. Again, in Ontario the College-University Consortium Council concluded that the 'Port Hope Accord' of 1999, which committed universities and colleges to developing degree-completion arrangements to allow college graduates to get an Ontario university degree in an accelerated time frame – it set out a model for the amount of credit that should be given in articulating college diploma programmes to university degrees - had achieved moderate success.

It is difficult to obtain any data on the numbers of students who undertake and complete undergraduate diploma and certificate programmes, as the body which produces the data, Statistics Canada, reports on aggregate university qualifications granted by level, i.e., graduate and undergraduate. Thus the existing undergraduate figures include all those who graduated with bachelor's and first professional degrees, as well as undergraduate diplomas and certificate and other undergraduate qualifications (see <http://www.statcan.ca/english/Pgdb/educ20.htm>). Furthermore, the available figures do not include data from non-university institutions. Yet, notwithstanding this, there is no doubt that certificate and diploma students form a very substantial part of the student population, judging by the extensive number of arrangements that exist for the articulation of the diploma programmes to university degrees.

¹³ The protocol document is available on the Council of Ministers of Education, Canada, website (www.cmec.ca). The provincial arrangements are best approached through 'Provincial postsecondary systems and arrangements for credit transfer' Council of Ministers of Education , Canada, January 2003 (www.bccat.bc.ca/whatsnew.htm).

2.3 Policy Contexts

As in many other parts of the world, there are various policy debates and developments occurring in Canada which relate directly to or encompass short-cycle awards structures. Apart from the major push to develop the articulation/progression arrangements discussed above, and which is part of the wider policy imperative to develop a lifelong learning society, there is also an increasing recognition that some diploma programmes, especially those in many technical/applied areas, are of degree standard. As a result, some provinces (e.g., British Columbia, Ontario, Alberta) allow certain public colleges and technical institutes to offer applied baccalaureate degrees in selected fields of study, some of which have evolved from applied diploma programmes.

The fostering of technological and applied education, and the impact that this will make on traditional short-cycle awards, is linked to the wider consideration being given by many provincial governments and postsecondary institutions to *inter alia* the broad challenges of globalisation, technology and the knowledge-based economy, the changing learning environment, the increasing diversity of learners, impending skill shortages, the changing roles and responsibilities of the different types of education provider, and the accessibility and affordability of education. As a result of these debates, it is unlikely that short cycle awards will remain static and unchanged. Anticipated changes that might occur may include changes in the nature of provision (e.g., more on-line and work-based learning), and even closer articulation between short-cycle and degree programmes.¹⁴

2.4 Other short cycles awards

Apart from undergraduate certificates and diplomas, the only other higher education short cycle award that is offered in Canada is the Associate Degree, which is a two year academic award with an Arts or Science focus. This is a provincial credential, which is unique to British Columbia. Its development was initiated by the British Columbia Council on Admissions and Transfers at the request of the province's post secondary institutions. The original curricular requirements were approved by the minister responsible for post-secondary education in 1991, and these requirements were reviewed in the late 1990s with a view to developing the associate degree for block transfer to degree granting institutions. New, more flexible requirements were approved in May 2000, which defined course unit requirements in terms of their transferability to the province's universities (see www.bccat.bc.ca/otg/associate/requirements.html), and which guaranteed all graduates 60 credits upon successful admission to a degree granting institution. In broad terms, the associate degree in British Columbia is designed to provide an educational experience that prepares students for work, citizenship and an enriched life as an educated person and to lay a solid foundation for further study.

¹⁴ For an example of the broader policy debate see the report 'Alberta's Post-secondary Education System: Issues and Considerations' (September, 2001), prepared by Alberta Learning (www.learning.gov.ab.ca). See also Postsecondary Education Systems in Canada: An Overview' at the Canadian Information Centre for International Credentials: (<http://www.cicic.ca/postsec/vol1.overview.en.stm>).

Table 2c below provides information on the number of associate degrees awarded in British Columbia since the first cohort graduated in 1993-4, until 2001-2.

Table 2c Associate Degrees awarded in British Columbia, 1994/4 to 2001/2¹⁵

Year	Assoc. Arts	Assoc. Science	Total
1993-4	149	27	176
1994-5	192	39	231
1995-6	285	46	331
1996-7	283	54	337
1997-8	342	71	413
1998-9	395	86	481
1999-00	467	108	575
2000-01	627	115	742
2001-02	803	137	940
Total	3,543	683	4,226

¹⁵ 'Associate Degrees awarded in British Columbia: 1993-4 to 2001-2' prepared by the B.C. Council on Admissions and Transfer (March, 2003), p. 3 (report available on www.bccat.bc.ca).

3. Europe

3.1 Introduction: Higher Education and Training Awards

One of the most fundamental factors shaping the European higher education landscape today is the ongoing Bologna process. Three ministerial communiqués - the Bologna declaration signed in 1999, the follow up Prague Communiqué of 2001 and the most recent Berlin Communiqué of September 2003 - are prompting and informing a comprehensive restructuring of higher education in Europe, which will culminate in the creation of the European Higher Education Area across at least 40 European states. One of the key elements of this process is the establishment of a common framework of European higher education awards. Work on the latter project has already commenced. The commitment to adopt a system of easily readable and comparable degrees based on two main cycles by 2005 began with the Bologna declaration. Other initiatives since then such as

- the development of the ‘Dublin Descriptors’ by the Joint Quality Initiative¹⁶
- the attempt to develop a European methodology, in the TEEP project, for the use of common criteria and quality assurance at the European level¹⁷
- the exploration, in the Tuning Project, of how European education structures might be ‘tuned’ at the curricular level¹⁸
- the moves to expand the European Credit Transfer System (ECTS) into a credit accumulation as well as a credit transfer system
- and the setting of the objective by European ministers that all students graduating in 2005 should receive the Diploma Supplement¹⁹

have all reinforced this commitment. A basic higher education awards’ structure is emerging within Europe, in which the main award types will be bachelor degrees (first cycle), master degrees (second cycle) and, since the Berlin Communiqué, doctoral degrees (third cycle). 80% of European countries already have or will soon have a two-tier (bachelor and master degrees) structure in place and most countries refer to a specific deadline. 20% of the remaining countries are in the planning phase.²⁰

¹⁶ <http://www.jointquality.org/content/ierland/Shared%20descriptors%20Ba%20Ma.doc>

¹⁷ <http://www.enqa.net/texts/TEEPmanual.pdf>

¹⁸ http://odur.let.rug.nl/TuningProject/index_phase1.htm

¹⁹ On credit and the Diploma Supplement see the Berlin Communiqué:
<http://www.bologna-berlin2003.de/pdf/Communique1.pdf>

²⁰ For a recent evaluation of progress to date see Sybille Reichert and Christian Tauch, *Trends III: Progress Towards the European Higher Education Area* (EUA, 2003), downloadable at http://www.bologna-berlin2003.de/pdf/Trends_III_neu.pdf

Ministers have also been encouraged - at the recent Berlin ministerial meeting (September 2003) - to 'elaborate a framework of comparable and compatible qualifications for their higher education systems, which should seek to describe qualifications in terms of workload, level, learning outcomes, competences and profile'. In addition, they have also undertaken 'to elaborate an overarching framework of qualifications for the European Higher Education Area'.²¹ Within this framework, it has been set out that first cycle (bachelor) degrees, and second cycle (master) degrees should have 'different defined outcomes' and 'different orientations and various profiles in order to accommodate a diversity of individual, academic and labour market needs', a prescription which shows similarities to the binary approach that exists in Ireland today. Also of relevance in this regard, is the recent EURASHE report on short cycle education which stated that 'tertiary short cycle education definitely contributes to diversification in higher education as it expands the range of studies from which students can choose'.²²

The position of short cycle higher education awards in the emerging three-tier structure has been highlighted in the Berlin Communiqué. Short cycle awards play a particular role in many European countries that accommodate a diversity of higher education provision. The Bologna Follow-up group was requested to 'to explore whether and how shorter higher education may be linked to the first cycle of a qualifications framework for the European Higher Education Area'.²³ The existing short cycle structure in Europe is complex and varied. There is a substantial body of learners across the continent participating in higher education short cycle programmes – one recent study estimated that more than 2.5 million students are involved in tertiary short cycle or sub-degree education at present.²⁴ Yet, however similar to other well established higher education qualifications short cycle studies may be, they do vary greatly in terms of the required inputs, and there are also many award titles in use. For example, tertiary short cycle graduates are awarded, inter alia, the Brevet de Technicien Supérieur (BTS) and the Diplôme Universitaire de Technologie (DUT) in France, a certificate and Diploma in Cyprus, a Diploma in Higher Education in Lithuania, an Associate Degree in Croatia, a Título de técnico in Spain; 'crediti formativi' (credits) in Italy and a Diploma Høgskolekandidat in Norway. The programmes range in length and are offered by a wide range of institutions including universities, other higher education institutions, centres for adult education and, in some instances, secondary schools.

It is difficult, then, to generalise about the short cycle system on a European-wide basis at this time until more research has been undertaken at the European level, along the

²¹ Berlin Communiqué (<http://www.bologna-berlin2003.de/pdf/Communique1.pdf>).

²² Magda Kirsch, Yves Beernaert and Søren Nørgaard, *Tertiary Short Cycle Education in Europe* (EURASHE, May, 2003).

²³ Berlin Communiqué (<http://www.bologna-berlin2003.de/pdf/Communique1.pdf>).

²⁴ Magda Kirsch, Yves Beernaert and Søren Nørgaard, *Tertiary Short Cycle Education in Europe* (EURASHE, May, 2003).

lines of the recent EURASHE study of tertiary short-cycle education. At present there is great diversity in the system and the common trends include:

- flexibility in terms of learning paths;
- the provision of vocational or professional education;
- differing progression opportunities exist for short-cycle graduates from state to state.

To provide a general impression of this diversity, sections 3.2–3.5 will describe developments in relation to three Bologna process signatories, namely, Croatia, Denmark and Turkey. Developments in the United Kingdom are also described in section 6 below.

3.2 Croatia

Higher education in Croatia dates back to 1396 when Dominicans established the General University – *Universitas Jadertina* in Zadar. This was the first and the oldest University in Croatia entitled to confer degrees of Master of Science and Doctor of Science and was thus equal in status to the other eminent European universities of the time. Croatia became an independent state in 1991. This brought many modifications in the school curricula, subject content and in the administration of educational institutions. Prior to 1991 all education was state-run. This is still the case for the majority of institutions, but some new private schools have been established.

The most recent legislation that relates to higher education is the *Higher Education Act of 1996*. This act sets out the organisation of higher education institutions. There is a clear differentiation between the university programmes and professional courses of study. The principles of the legislation recognise the demand for professional courses of study and the need for shorter, professional programmes that can offer practice-oriented professional knowledge. The legislation was developed in line with the *Council of Europe's Legislative Reform Programme for Higher Education (LRP)*.

Higher Education institutions comprise the 5 universities, 7 polytechnics, 6 independent schools of professional higher education, one teacher's academy, 7 public and 8 private schools of professional higher education²⁵ and 8 teacher's schools of professional higher education. Universities may carry out both university and professional courses of study while the polytechnics may only carry out professional courses of study. Polytechnics offer two to four years' professional study and train highly professional, artistic and, in some cases, scientific workers. Professional education is organized as undergraduate, postgraduate professional and postgraduate artistic studies. Under the 1996 legislation there is a possibility for the establishment of private universities, polytechnics and schools of higher education although only private schools of higher education exist at present.

Croatia is undergoing a transition in various fields, including higher education. Developments in this field have been determined by the heritage of the former system in which natural and technical sciences were more developed than other research fields. As a result, standards in the natural and technical science disciplines are equivalent to the wider European norms.

Quality, relevance and international cooperation are prominent among the priorities of Croatian higher education policy. Quality assessment and assurance of the Croatian system are performed by the National Council for Higher Education, an independent body composed of eighteen members nominated by the Rectors' Conference and higher education institutions, and appointed by the Parliament of the Republic of Croatia. The Ministry of Science and Technology creates its policy on the findings of the National Council for Higher Education and the National Scientific Research Council, an independent body responsible for the preparation of the National Scientific Research

²⁵ Source: Directorate for Higher Education, Ministry of Science and Technology, 2002.

Programme. International cooperation is seen as one of the tools for ensuring quality of teaching and research.

The duration of higher education study depends upon the complexity of the curriculum. In general undergraduate university studies last at least four years while undergraduate professional studies last a minimum of two years. The number of students to be enrolled into university and professional courses of study is based upon the case studies prepared by independent institutions (e.g. a case study on Elements of Admission Policy of Universities, Schools of Professional Higher Education and Polytechnics, prepared by the Institute for International Relations, Zagreb).

There appears to be no sub-degree system in operation in Croatian higher education or at least one that is equivalent to sub-degree systems implemented in other European countries. However a diploma is awarded following the completion of a two-year undergraduate professional course of study. This diploma has been recognised by the employment market as a first degree and is referred to as an associate degree. Following completion of the first two years of the undergraduate professional course of study, a student may enrol in the third and fourth year of the undergraduate professional course of study under the conditions set by a higher education institution. Students holding an **associate degree** can request a transfer to a university course of study. Higher education institutions providing a cognate university course of study decide on the assessment that a student is required to take in order to be allowed to transfer or to continue his /her course of study.

Participation Rates: According to the Ministry of Science and Technology ‘ *The total number of students enrolled in higher education institutions in Croatia is 84,088. 59,230 are enrolled in university courses of study and they will be awarded a Bachelor degree, while 24,858 students (almost 30% of all students enrolled in higher education) are enrolled in the professional courses of study and they will be awarded an associate degree*’. The majority of students holding an associate degree enter the workplace. (Note the figures on participation in higher education are at variance with other recent reports on tertiary education in Croatia.)

The Ministry also states that the Zagreb area has the largest number of students in Croatia. There are 33,889 students undertaking university studies and 14,640 students undertaking professional studies. The total number of students in this area is 48,529 which equals 58% of the total number of students in Croatia.

Policy Context

In Croatia governance of the tertiary level is the responsibility of the Ministry of Science and Technology (MoST). The Ministry of Education and Sport (MoES) is ultimately responsible for the pre-tertiary level. The MoES is responsible for drafting legislation, defining the curriculum for all schools, and other detailed duties at this level. At present Zagreb is described as the dominant university, research and economic centre of Croatia.

The Ministry of Science and Technology is aware of the need to move away from such a centralised system and is engaged in an ongoing effort to decentralise higher education and research.

A report carried out by the education committee of the OECD on the *Thematic Review of National Policies for Education – Croatia*, and published in 2001 referred to the Higher Education Act of 1996. The report states that the legislation “did not provide a balanced framework for reforms in the system. Many aspects are hardly mentioned in the policy documents (e.g. continuing education, post-secondary education, lifelong learning). New legislation proposed by the MoST is currently under consideration. The new document envisions serious changes in a number of important areas, such as the autonomy of HEIs”. Under the proposed new legislation, a more liberal procedure for establishing private HEIs is envisaged. The report goes on to say that “ the concept of ‘higher professional schools’ (*visoke strucne škole*), introduced as a parallel system to the universities in 1998, is not clearly understood by parents and students and should be analysed more carefully in the forthcoming years as an alternative tertiary education option.”

On a more positive note the OECD report notes that “the establishment of non-university higher education studies in 1998, and three levels of degrees into university studies, have been very positive developments. The flexibility of the (Higher Education) system to respond to the needs of people and also to market demands has been much improved”.

3.3 Denmark

3.3.1 Overall Structure of Education in Denmark

The responsibility for education in Denmark rests with a number of government departments. Education is largely the responsibility of the [Ministry of Education](#) and the [Ministry of Science, Technology and Innovation](#). The Ministry of Social Affairs is responsible for pre-primary/ kindergarten. The Ministry of Education is responsible for vocational education and training, further education (with the exception of the universities), adult vocational training and adult liberal education as well as private schools on the primary, lower secondary and upper secondary level). This covers short and medium cycle education in most cases. The Minister of Science, Technology and innovation is responsible for university education except for certain higher education programmes, which fall under the responsibility of the Ministry of Cultural Affairs. The Ministry of Cultural Affairs is responsible for degree courses at the Royal Academy of Fine Arts, the music academies, the schools of librarianship, the schools of architecture. The Ministry of Defense is responsible for military education.

The Danish education system²⁶ consists of *grundskole* (combining primary and lower secondary education), *ungdomsuddannelser* (youth education programmes, i.e. upper secondary education) and *videregående uddannelser* (higher education), as well as a system of adult education. The education system is financed by the State, the counties and the municipalities. Some institutions are independent and self-governing, while others are owned by the State, counties or municipalities. Most university-level institutions offer various courses and programmes in English.²⁷

Higher education comprises the following categories of education:

- short-cycle non-university higher education, i.e. further technical, commercial and agricultural education
- medium-cycle non-university education
- medium- and long-cycle university education, post-graduate university education (i.e. Ph.D., doctorates)

The university sector includes five multi-faculty universities and 14 institutions specialising in fields such as engineering, veterinary science, agriculture, pharmacy, business studies, architecture, art, and music.

The non-university sector comprises more than 175 specialised institutions of higher education, normally offering medium and short cycle professionally oriented programmes. Some of the institutions are relatively small with 400–600 students and offer one or a few study programmes in a specific field. A new development, however,

²⁶ Danish Ministry for Education http://cvuu.uvm.dk/en/education/dk_overall.htm?menuid=5520

²⁷ Programmes in English: <http://www.ciriusonline.dk/eng/visartikeltype.asp?Id=499>

is mergers of institutions into centres of higher education offering a variety of educational programmes. In addition to the theoretical parts, the programmes include internships or work placements in companies and the preparation of an individual project.

Higher education in Denmark is undergoing changes in response to the Bologna Declaration and ongoing process. It is normally divided into the following three categories according to level and admission requirements: *short-cycle* higher education, *medium-cycle* higher education and *bachelor-* and *long-cycle* higher education programmes, respectively.

The medium-cycle higher education programmes, which are of 3-4 years' duration, consist of a very varied supply of different programmes. They comprise a wide range of programmes, which qualify for a given profession (e.g. the teacher training programme for the Folkeskole, the educator training programme, programmes in occupational therapy and physiotherapy, nursing, etc.), and which take place at specialised educational institutions. The normal entry for the medium-cycle programmes requires completion of a general upper secondary education programme or similar, in some cases with specific subject and subject-level requirements.

The long-cycle higher education programmes (referred to as the Candidatus-programmes), which are of 5-6 years' duration, are research-based programmes which take place at the universities and the other higher education institutions in the university sector.

The use of **ECTS credits** has been introduced as a national system by virtue of ministerial regulation, which took effect at all levels of higher education on 1 September 2001.

3.3.2 Description of Short Cycle (Professional) Higher Education Awards

The legislation for short-cycle non-university education programmes (KVU) is the Act on Short-Cycle Non-University Education (the vocational academy programmes) of 1997. This legislation authorises the Ministry to lay down regulations for the programmes. The main short cycle higher educational programmes lead to the award of the **Vocational Academy Degree (AK)**. *The short-cycle higher education programmes*, which are of 1 - 3 years' duration (normally 2 years), are usually directed at an established occupational area. The best-known programmes are the short-cycle further technical programmes, the market economics programme and the computer specialist programme. The programmes are primarily offered at the vocational colleges, i.e. the business colleges and technical colleges.

In August 2000, a new act on short-cycle higher education (Act no. 1115 of 29 December 1997) was implemented, making the access routes broader and more transparent, with better possibilities for the students of being awarded credits in a medium- or long-cycle higher education programme.

In connection with the reform of the short-cycle higher education programmes (KVU), around 75 of the existing programmes have been discontinued as from 1 August 2000, and they have been replaced by 13 new short-cycle higher education programmes with a clearer programme and a standard national competence.²⁸ Holders of degrees on the sub-degree level will have practical competence within a specific area of business as well as the competence to follow a relevant further education programme.²⁹ The programmes are by their nature vocational e.g. Diploma in Service Management (AK) Tourism and Travel offered at The Danish Business Academy and Randers College. They have the common designation of *erhvervsakademiuddannelser* (vocational academy programmes).

The need for change is to a large extent related to internationalisation. ‘*Among the international changes affecting higher education are a growing international market for higher education, transnational education and a need for recognition of degrees due to graduate mobility. The Bologna Declaration can be viewed as a European response to these developments*’ (Danish Evaluation Institute (EVA)).

The 13 new study programmes that came into existence in 2000 in the following fields:

- Agriculture: *jordbrugsteknolog AK*
- Textile, Clothing and Design: *designteknolog AK*
- Food Industry: *procesteknolog AK*
- Hotel and Tourism: *serviceøkonom AK*
- Finance: *finansøkonom AK*
- Construction: *bygningstekniker (3 ½ years), byggetekniker AK, kort- og landmålingstekniker AK*
- Technology and Energy: *installatør AK*
- IT and Electronics: *IT- og elektronikteknolog AK*
- Media and Communication: *multimediedesigner AK*
- Industrial Production: *produktionsteknolog AK*
- Laboratory Technician: *laborant AK*
- Retail Trade: *handelsøkonom AK*
- International Marketing: *markedsføringsøkonom AK*.

Progression Routes: It would appear that the focus is mostly vocational as the courses are practical in nature. However, since the courses began in their new format in 2000 figures relating to progression are not yet available. According to the EURASHE³⁰ comparative study transition to degree courses is seen as easy, where a comparable

²⁸ Eurybase 2001 – Information Database on Education Systems in Europe.

²⁹ Towards a Danish Qualifications Framework for Higher Education (Final report of the Danish Bologna follow up group) January 2003.

³⁰ Magda Kirsch, Yves Beernaert and Søren Nørgaard, *Tertiary Short Cycle Education in Europe* (EURASHE, May, 2003).

degree course exists. Transition arrangements are protected by the law, though students may need to undertake bridging studies.

Another important parallel reform is in the area of **adult education** and Continuing Training and relates to a reform of lifelong learning introduced in 2000 (see section 3.4.3 below).

The vocational academy degree award-type descriptor/profile as detailed in the final report of the Danish Bologna Follow up Group – Towards a Danish Qualifications Framework for Higher Education is as follows:-

Competency profile

An AK graduate will have competencies acquired through a course of study that has taken place in a development-based study environment with close contact to the labour market through the institution's knowledge centre and development functions and with a relevant course of study of businesses built into the programme.

An AK graduate should be able to perform practice-oriented tasks based on an analytical approach within specific professions. Furthermore, an AK graduate will have the necessary competencies to be able to complete a Diploma education programme.

The three Competency goals :-

Intellectual competencies:

An AK graduate should be able to describe, formulate and communicate practice-oriented issues and options for taking action and to conduct analyses of practice-oriented issues.

Professional and academic competencies:

An AK graduate should be able to:

- Apply relevant analysis methodology within his or her specific profession.
- Demonstrate insight into selected disciplines, theories and concepts relating to that profession.
- Understand the profession's placement in a broader societal context.

Practical competencies:

An AK graduate should be able to:

- Plan, organise and perform tasks within his or her specific profession.
- Contribute to development work.
- Work with others both in and outside his or her discipline.

Formal aspects include:-

Admittance requirements: Upper-secondary or vocational education.

Length: 2 years (120 ECTS credits).

Further education options: Diploma education programme.
 The degree is recognised by the proper ministry.
 Degree-conferring education programmes are provided by vocational schools or other institutions approved by the relevant ministry.’

Participation Rates: There is a participation rate of 44% in higher education in Denmark (with completion rates of 60/70%) of which short-cycle programmes make up 18%.

Table 3a Participation rates by cycle (1999)³¹

Short-cycle non-university higher education (KVU)	10,7 %
Medium-cycle non-university higher education	35,1 %
Medium-cycle university education	22,8 %
Long-cycle university education	31,4 %

To ensure that the vocational / AK degree be recognised outside the state the Danish government have ensured that as of June 2002 a certificate supplement will be made available to all AK graduates of the Vocational Academy Degree Programme.

3.3.3 Policy Context

The Danish move towards a **qualifications framework** incorporates the sub-degree short cycle higher education programmes and sees them as adding to or supporting the Bologna first cycle degrees. The Danish consider that the short cycle higher education programmes in Bologna terms are ‘typically first cycle programmes, but they do not easily fit into the Bologna Declaration’s terms ... as they are not long enough to lead to second cycle programmes.’ The report makes an attempt to describe four levels of higher education ‘in part by using terminology from the Bologna Declaration and in part by giving a preliminary qualifications description...’. The four levels include the sub-degree level; the degree level; the Master level and the Doctoral level. The description of the sub-degree level is as follows:

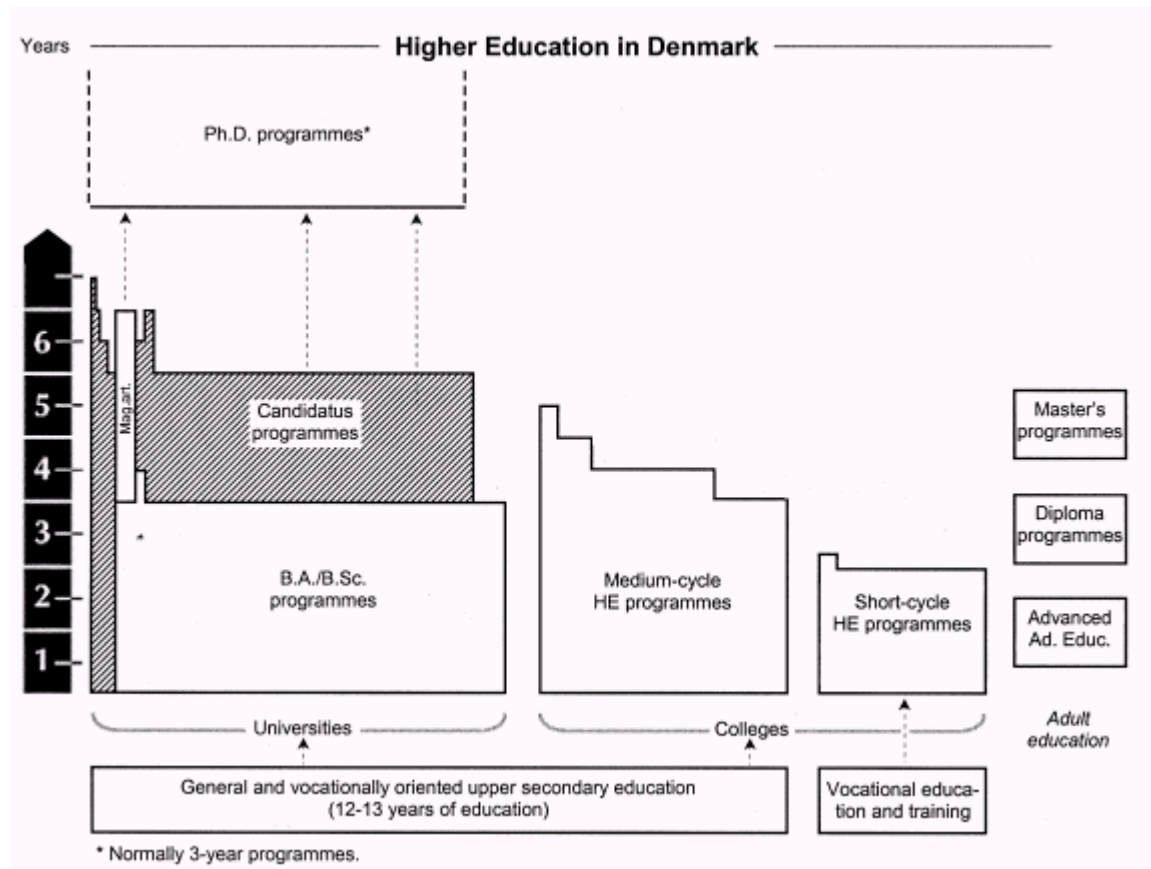
‘Degrees at this level give admittance to programmes that end at the Degree level (next level up) after one more year of study’.

Whether there is actually access to programmes on the Degree level depends on whether programmes exist in the academic field in question. Holders of Degrees on the Sub-degree level will have practical competencies within a specific area of business as well as the competence to follow a relevant further education programme that opens the possibility of completing a Degree-level programme after one year.³² At the same time work is done to create more transparency and comparison of qualifications, for instance

³¹ Eurybase 2001 – Information Database on Education Systems in Europe

³² Towards a Danish ‘Qualifications Framework’ for higher education 15 January 2003 (final report approved by the Bologna Follow up group).

via similar degree structures and standards for international diploma and certificate supplements.³³ This initiated the idea of streamlining the Vocational Academy Degree programmes (AK), which took place in August 2000. It is considered that greater transparency and ease of comparison will improve transfer and progression possibilities both internationally and within Denmark.



Adult Education and Continuing Training: A reform of lifelong learning was introduced in 2000 (Act no. 488 of 31 May 2000). It introduced three advanced levels of open education qualifications as follows:

1. *Videregående voksenuddannelse* (Advanced Adult Education) – **comparable to a short-cycle higher education level** (programmes at this level are yet to be elaborated);
2. *Diplomuddannelse* (Diploma programmes) – comparable to a medium-cycle higher education level;
3. *Masteruddannelse* (Master's programmes) – comparable to a long-cycle higher education level, e.g. Master of Business Administration (MBA), Master of Public Administration (MPA) or Master of Public Health (MPH).

³³

Fact sheet *The Internationalisation of Danish Education Progress Report 2002*.

Most programmes consist of 2 years of part-time study, equivalent to 1 year of full-time study. The admission requirements are a relevant prior qualification and at least 2 years of professional experience. Institutions may accept applicants on the basis of other relevant qualifications.

Education programmes at the advanced levels within the adult education system may be advanced in depth and in breadth, i.e. either vocational specialisation within or outside the ordinary vocational field of the participant. The organisation of the content and teaching methods of the continued education programmes within the adult education system is also to a large degree based on the life and work experience of the adults.

In summary, the model for establishing a Danish **Qualifications Framework** comprises five elements under three main headings in all. Qualifications are described in terms of these five elements: Competency Profiles and Competency Goals (Intellectual Competencies, Professional and Academic Competencies and Practical Competencies) and a formal aspect.

Competency profiles: Indicate whether the knowledge base is primarily academic or practice-oriented. In addition, general descriptions may be provided similar to those found in the present degree descriptions.

Competency goals:

- *Intellectual competencies*, such as analytical and abstract thinking, a knowledge-seeking approach, communications skills and the ability to structure own learning.
- *Professional and academic competencies*, such as specialist competencies within a specific discipline, insight into related disciplines, cross-disciplinary competencies.
- *Practical competencies*, such as practical skills, professional ethics and responsibility.

A Formal aspect is also included for each qualification this includes admittance levels, length and formal further educational competencies.

This approach to a qualifications structure is backed up by the Danish Government Action Plan published in June 2002³⁴ and referred to as '*Better Education – Action Plan*'. This publication gives a brief introduction to the action plan of the government to strengthen the proficiency and competence level in upper secondary education, in higher education and in adult and further education and continuing training. The government is looking for greater efforts in five main areas: qualifications and competences; flexibility; innovation; free choice and output management.

³⁴ <http://pub.uvm.dk/2002/better2/01.htm> Better education Action Plan Danish Ministry for Education June 2002

In general all education programmes must consist of a solid foundation of qualifications and competences. Regardless of the level of the programme it is considered that the quality of a programme depends totally upon the degree of proficiency and competence to be achieved by the learner. The government is looking for a more precise subject-specific profile of the programmes with clearer more defined learning outcomes. It is expected that all programmes will match the increasing demands in the private and public sector labour market. In short-cycle higher education in particular, there must be an innovation of the interaction with the business sector with a view to a continued assurance of the relevance of the programmes.

3.4 Turkey

3.4.1 Higher Education Structure

Higher education in Turkey was reformed in 1981 with the introduction of new legislation referred to as the Law on Higher Education (The 1981 act has been subjected to minor amendments over the years). Today higher education is defined as all post-secondary programs with a duration of at least two years. The 1981 legislation reorganised the structure of higher education and established the Council of Higher Education as an independent body. The Council is responsible for strategic leadership of higher education institutions through the planning, organising, and supervising of activities. The decisions of the Council and the Universities (on teaching and research) do not require ratification by the Turkish Minister of National Education.

This new legislation also provided an opportunity for non profit private bodies to establish themselves as higher education institutions referred to as non-profit foundations or private universities. The other main administrative body in higher education is the Interuniversity Council (Turkish University of Rectors).

The structure of higher education in Turkey is defined as a unitary system and centres around the universities. Higher Education is provided by 53 state universities, including 2 higher institutes of technology, and 23 foundations (private universities). The university is composed of a number of components or units such as faculties, departments, graduate schools, four-year schools and two-year vocational schools. Faculties and four-year schools offer Bachelor degree programmes with a vocational orientation. The two-year vocational schools offer sub-degree vocational type programmes referred to as pre-bachelor's (associate's) level programs. Graduate schools offer graduate studies and Research.

The Universities, faculties, institutes and four-year schools are all established by law, while the two-year vocational schools, departments and divisions are established by the Council of Higher Education. The private foundation universities are under the supervision of the Council of Higher Education and their programmes must be regularly accredited by the Council.

The Turkish higher education system does not include non-university level post-secondary study. Higher technical and vocational post-secondary studies are offered in 598 four-year higher schools and two-year vocational higher schools affiliated to the universities. They offer vocational training in various professions and confer an Önlisans Diploma (Associate Degree) following completion of two-year university studies and a Lisans Diploma on completion of four-year university studies. Courses leading to the Bachelor's Degree require a minimum of four years' university study.

Short - Cycle Higher Education Awards

The main references to awards in the sub-degree short cycle category refer to the associate's level programmes or pre bachelor's programmes. Two types of qualifications are referred to as follows: -

- Pre Licentiate or Associate Degree (Önlisans Diploması) – 2-year full-time university study.
- Higher Education Diploma (Higher Technician Diploma) – 2-year fulltime study.

The relationship between the two-year associate degree and the two-year higher education diploma is not clear. Transfer progression and articulation arrangements are difficult to source. The differentiation may relate to the fact that students who study for two years in the vocational higher schools affiliated to the ministry of education do not seem to go on to further studies but to gain employment instead. These vocational higher schools concentrate on trades/ professions such as electricians.

The EURASHE report on *Tertiary Short Cycle education in Europe* refers to the higher education diploma as the main pre bachelors studies and qualification awarded, following which graduates can progress to year two of the university bachelor programme. Other references to the higher education diploma refer to students progressing to the bachelor's studies provided they pass some additional requirements which appear to be access examinations leading to extra points to enter Bachelor's degree studies.

The submission from the Turkish government on the official Bologna website outlining '*Higher Education in Turkey – Implementing the assumptions of the Bologna Process*', refers to a two tier system of higher education with three stages of university level qualification. **Stage one** is the On Lisans Diploması (Pre Licentiate or Associate Degree) awarded after successful completion of a two-year university study (subsequent transfer to the full bachelor's degree programme is a natural articulation route) **and this stage includes** the Lisans Diploması (Bachelor's degree) awarded after successful completion of a four-year university study. The **second stage** is the Masters degree and the **third stage** refers to the PhD/Doctorate.

There appears to be a strong commitment, in higher education in Turkey, to maintaining and developing short-cycle programmes. Also a new project has been established recently towards the Modernisation of Vocational Education and Training in Turkey Project (MVET). This is a project funded by the European Union MEDA program, which commenced in July 2003. The overall goal of the project is to further modernise and adapt the system to make vocational education and training more responsive to the socio-economic needs of the country and to the key principles of life-long learning. The participation rates for pre bachelor's programmes are significant.

Figure 1

In the 2001-2002 academic year, undergraduate enrolment in Turkish universities was as follows:

	Bachelor's	Pre-Bachelor's
Full Time	775,132	262,649
Distance Education	623,465	138,628

Source: The Council of Higher Education of the Republic of Turkey

Figure 1 shows the number of applicants for the Student Selection and those placed in programs of higher education in 2001.

The organisation and supervision of sub-degree higher education – or pre-bachelor education – takes place at a national level and is articulated through legislation governing issues such as entry requirements, fees and the fields of study in these pre-bachelor's programmes.

The orientation of sub-degree education is vocational with a view to providing a professional specialisation for the purpose of employment. The main elements of programme content consists of a combination of theory, practice and work placement. Professional organisations are not usually involved in programme design. The main fields of study appear to include technical sciences, applied social science, agriculture, and forestry, health sciences, arts, language and literature and maths and natural science.

4. Hong Kong

4.1 Summary of Education Structure

Hong Kong is governed as a Special Administrative Region of the People's Republic of China since 1 July 1997. The Hong Kong Special Administrative Region (HKSAR) is vested with legislative power and the legislative Council is the legislature of the Region. The Education Department which now encompasses the Education Manpower Bureau (EMB) (1 January 2003) is responsible for both education and employment. Its role is to ensure an adequate supply of manpower through vocational training, retraining and the importation of labour, in order to meet the demands of Hong Kong's economy and to contribute to the overall economic competitiveness of Hong Kong.

There are eleven degree-awarding institutions in Hong Kong, eight of which are funded by the [University Grants Committee \(UGC\)](#).³⁵ Of the eight, seven are fully self-accrediting degree-awarding universities namely, [City University of Hong Kong](#), [Hong Kong Baptist University](#), [Lingnan University](#), the [Chinese University of Hong Kong](#), the [Hong Kong Polytechnic University](#), the [Hong Kong University of Science and Technology](#) and the [University of Hong Kong](#). The other one is the [Hong Kong Institute of Education](#) which is a degree-awarding teacher training institute. In addition, there are three tertiary institutions not funded by the UGC namely, the publicly-funded Hong Kong Academy for Performing Arts and the self-financing [Open University of Hong Kong](#) and the [Hong Kong Shue Yan College](#). In addition, [Caritas Francis Hsu College](#) is a privately-funded approved post secondary college

Hong Kong higher education has gone through dramatic changes over the past 20 years, including an increase in the number of universities from two to seven, along with university-level enrolments growing from 2 to 18% of the 17-20 age group in the 1990s. More recently a comprehensive review of the entire education system was carried out and present day developments are a direct result of the recommendations of the review. The major government advisory bodies for the purpose of this report include the Education Commission (EC), the Hong Kong Council for Academic Accreditation (HKCAA)³⁶ and the University Grants Committee. The EC³⁷ has in recent years recommended wide-ranging reforms to the whole education system. Included in the

³⁵ The University Grants Committee (UGC) of Hong Kong is a non-statutory advisory committee responsible for advising the Government of the Special Administrative Region (SAR) of the People's Republic of China on the development and funding needs of higher education institutions in the SAR.

³⁶ HKCAA is an independent statutory body established in 1990 to provide advise on academic standards of degree programmes and on educational standards and qualifications in general. It is an independent quality assurance agency in higher education.

³⁷ EC a government appointed body was set up in February 1984 to advise the Government on the overall development of education in Hong Kong in the light of community needs, the cross-sectorial impact of education issues, and the long-term strategic development of education in Hong Kong. Advice given applies to all education sectors.

proposals is the development of a new qualifications framework. Other recommendations for higher education reform include encouraging the development of community colleges, providing associate degrees or diploma programs to students who have completed secondary education, and making provision for the possible development of one or two private universities. The Associate degree occupies a prominent position in the new proposed qualifications framework providing an important bridge between secondary and tertiary education.

4.2 Major Short Cycle Awards

Associate Degree: In response to the government's call to widen access to tertiary education, several third level institutions such as the continuing education divisions of the University of Hong Kong (HKU) and the Hong Kong Baptist University (HKBU), launched a new type of programme called the associate degree (AD) programme in the Autumn semester of 2000. The City University of Hong Kong (CityU) also converted its Higher Diploma programmes into Associate Degree programmes. The associate degree is loosely based on the North American associate degree model. The response to this new type of programme was overwhelming. Starting from the Autumn semester 2001, all universities in Hong Kong were offering associate degree programmes.

As Hong Kong moves towards a high-technology and knowledge-based economy, there is an urgent need for a larger percentage of the work force to have an educational level that is above and beyond the basic secondary school education. The traditional Secondary 6 and Secondary 7 (S.6 and S.7)³⁸ matriculation programme is deemed to be inappropriate, not only because of the limitation of places, but because the curriculum is too narrowly focussed. By emphasising a mixture of broad-based education plus practical specialisms, associate degree programmes can open up access to higher education and at the same time contribute to the upgrading of the labour force of Hong Kong in a way that can meet the requirements of the new era.

It is considered that the associate degree programmes provide a more flexible mode of learning, a wider variety of subjects and modules, with emphasis on classroom participation, and hands-on projects. One advantage highlighted is that many students who may not do well in an examination-oriented education system regain confidence and interest in learning on an associate degree programme.

Common Descriptors for Associate Degree: The Education and Manpower Bureau have promulgated a set of [common descriptors](#) for the associate degree programme in Hong Kong, taking into account international practices and local conditions:

³⁸ The secondary curriculum includes five types of study: grammar, technical, prevocational, practical and skills opportunity. The first three types of curriculum are offered in five-year secondary courses (i.e., Form 1 to Form 5) will lead to the [Hong Kong Certificate of Education Examination \(HKCEE\)](#). After taking the HKCEE, students can apply for a two-year Matriculation course (i.e., Form 6 and 7), which leads to the Hong Kong Advanced Level Examination (HKAL).

Programme Objectives

- Generally, the associate degree should provide an enriched education at post-secondary level that prepares students for work, further study, leisure and active citizenship. It should also cultivate a spirit of lifelong learning and develop the students' ability to learn how to learn.
- Specifically, the associate degree should equip students with generic skills as well as specialised knowledge/skills that are sufficient to enable them to perform effectively at para-professional level, to further their studies in universities or to pursue professional studies.

Learning Outcomes

- Associate degree graduates are expected to achieve:
 - a solid foundation of generic skills, including languages, IT, interpersonal, communication, quantitative and analytical skills, as well as the ability to learn how to learn.
 - a broad theoretical understanding of the chosen discipline and its application.
 - a theoretical foundation upon which further study in the discipline at the degree level, or professional level, can be built.
 - an appreciation and basic understanding of other disciplines/areas of study including liberal arts/general education, and the sciences.
 - a better understanding of their own interests, inclinations and aptitudes.
 - an appreciation of the major socio-political, cultural and economic issues in the local, national, regional and international contexts.
 - a strong sense of social responsibility and civic values, a passion in pursuing creativity and innovativeness, and the spirit of lifelong learning.

(In the case of vocational-oriented programmes)

focused, vocational knowledge of the discipline and hands-on expertise at the para-professional level

Programme Structures

- Associate Degree programmes can be 2-years duration normally admitting students with one A Level or an equivalent number of AS Level subjects;

or

a 3-year programme admitting S5 students. For a 3-year curriculum, the first year programme may take the form of *either* a standalone pre-Associate Degree *or* a Foundation course which forms an integral part of an Associate Degree programme.

Entry Requirements

- Entry to associate degree programmes will in general adopt the principle of lenient entry, stringent exit.

- For a 2-year curriculum, the proposed normal minimum entry requirements are:

(a) one A Level or an equivalent number of AS Level subjects, plus 5 passes in HKCEE (including English and Chinese); (b) satisfactory completion of a pre-AD programme; *or* (c) mature students.

- For a 3-year curriculum, the proposed normal minimum entry requirements are: (a) satisfactory completion of S5 (with 5 passes in HKCEE including English and Chinese); *or* mature students.
- Two-year full-time programmes would only accept students who have completed S.6 or S.7. The three-year full-time programme of The University of Hong Kong would accept Secondary 5 (S.5) graduates with six passes (including Chinese or English). However, it also accepts students directly unto the second year of their programme, and the entry requirement is the completion of S.7 studies.

Quality Assurance

- For self-accrediting universities, associate degree programmes must undergo their own internal quality assurance mechanism as for their regular degree programmes.

- For non-self-accrediting institutions, the associate degree programmes should be validated by a recognised quality assurance agency such as the Hong Kong Council for Academic Accreditation.

The associate degree is considered to be a valuable standalone exit qualification for employment at the para-professional level. It is also appropriate for those who wish to pursue further studies or professional development (on a full-time or part-time basis). As an exit qualification for further studies, an associate degree award is normally equivalent to 50% of a 4-year university bachelor degree (North American model) or one-third of a 3-year university degree (British model). In other words graduates can articulate to Year 3 of a 4-year university degree (North American model) or Year 2 of a 3-year university degree (British model). As an exit qualification for employment purpose, associate degree are generally considered as equivalent to that of a Higher Diploma.

The government is continuing work on the area of Articulation. The government has outlined a plan to fund additional second year places of undergraduate programmes and to introduce the Credit Accumulation and Transfer System commencing with the academic year 2005. This is to provide more articulation opportunities for associate degree students and improve mobility between the sub-degree and university sectors.

4.3 Other short cycle Programmes

The Higher Diploma: S.5 school leavers can undertake a 3-year full-time programme and obtain an award called the Higher Diploma (HD). Long before the launching of the associate degree programmes in 2000, several institutions in Hong Kong were offering this type of full-time programme to post-secondary students.

The higher diploma was originally designated as a terminal award for vocational purposes. Holders of the HD award are normally employed in the community at the more technical level. The award has been recognised by government for employment and regulatory purposes (i.e. HD graduates can do certain tasks as prescribed in some legislation). The curriculum is frequently vocational or profession-specific, reflecting a specialist approach.

More recently top-up programmes are available to bridge HDs to degree level, initially specialist British bachelor degrees and more recently generic bachelor degrees. Although higher diplomas primarily prepare students for employment it is no longer to be considered a terminal award. They can now be used as a stepping stone to overseas degree programmes. The higher diploma is however more vocationally-oriented than the associate degree.

The Higher Education Foundation Certificate (HEFC) (A Pre-Associate Degree Programme): An urgent need was identified for additional access or a “bridging/access programme” to allow S.5 school leavers progress to the associate degree programme without going through the traditional matriculation route. From an educational point of view, a much more broad-based “access programme” would also allow students to be more prepared for the associate programme than one year of S.6 study.

The title Higher Education Foundation Certificate was proposed, and will be used – sometimes interchangeably with the term Higher Education Foundation Programme, (HEFP) – for this access programme. The programme can be viewed as either a standalone programme or an integral part of a 3-year programme providing access for Secondary 5 graduates and leading to an associate degree qualification. Similar arrangements have been put in place for higher diploma programmes in Hong Kong.

It is proposed that the HEFC should be a 1-year full-time, or 2-year part-time programme consisting of not less than 650 contact hours. It is envisaged that two types of HEFC programmes could be launched. The first type would be a very broad-based programme preparing the students to progress to the less specialised associate degree programmes (e.g. Associate of Arts). The second type will be the more specialised programmes, preparing the students to progress to a specific, professionally-oriented Associate Degree programme (e.g. Associate Degree in Accounting).

The main purpose of the HEFC is to prepare the students for the associate degree Programme. However the HEFC qualification will also stand as an award in its own right as not every HEFC graduate may be eligible to proceed to the associate degree level. It is recommended that for the purpose of employment, HEFC graduates should be considered by the government as equivalent to S.6 students for matriculation. HEFC graduates may progress to the second year of the 3-year Higher Diploma programmes currently offered by some tertiary institutions. For students who intend to study abroad, the HEFC would enable them to articulate to the first year of university studies in the USA.

4.4 Policy Context

Hong Kong has introduced an additional sub-degree qualification in response to a call to 'widen access to tertiary education' and 'to build a more flexible and diversified higher education system'. This new programme called the associate degree is loosely based on the US associate degrees model. The programmes involve two years of study after A levels, or three years after form five. Two further years of study are normally required to complete an honours degree.

The Government agreed to facilitate tertiary institutions, private enterprises and other organisations to provide options other than traditional sixth form education, such as professional diploma courses, higher diploma courses and associate degree programmes.

The Government accepted the key recommendations of the Education Commission made in May 2000, after a comprehensive review of the entire education system. One of the main objectives was to develop a diversified, multi-channel, multi-layer higher education system. The widening of access to higher education and the setting up of a comprehensive qualifications framework have both become top-priority tasks in the overall human resources development strategy of Hong Kong.

In response to the government's call to widen access to tertiary education, several third level institutions launched the associate degree programme in the Autumn semester of 2000. In the past, the basic definition of higher education was a university degree or a vocationally oriented higher diploma or diploma. The associate degree allows for the development of a more diversified higher education structure both leading into the award and progression following successful completion of the award. It provides another alternative for many students who do not feel that a traditional, three year honours degree or a vocationally oriented higher diploma is right for them. Through the associate degree programmes the students can find out more about their own interests, aptitudes, strength as well as aspirations, and choose to start their career or to further their studies accordingly.

In May 2002 the Education Manpower Bureau commissioned a study of the development of a qualifications framework (QF). The study was published in November 2002 and a period of public consultation concluded during February 2003. The core recommendation is that a qualifications framework is put in place to provide a coherent post-secondary framework of assessment and assurance for qualifications. This framework should be easily understood by students, employers and training providers and ensure the standard and supply of relevant education and training.

The Education and Manpower Bureau issued a consultation document proposing to set up a qualifications framework with seven levels of qualification and an entry level. The associate degree occupies a prominent position in this framework, providing an important bridge between secondary and university education.

Levels	<i>Title</i>
7	Doctorate
6	Master, Postgraduate Diplomas/Certificates
5	Degree
4	Associate Degree, Higher Diploma
3	Diploma
2	Certificate
1	Certificate

The University Grants Committee (UGC) also carried out an extensive review on higher education in 2002. One of the main recommendations of the UGC was the establishment of a Further Education Council to look after associate degrees and life long learning. The UGC will then transfer all responsibilities relating to sub-degree qualifications over to the new Council if it is established.

5. Iran

5.1 Higher Education in Iran

Higher education in Iran is provided by universities, institutes of technology, medical universities, professional education institutions, teacher training colleges and centers, and private institutions.

There are two Ministries responsible for most post-secondary education, the Ministry of Culture and Higher Education (MCHE) and the Ministry of Health and Medical Education (MHME). The Ministry of Education is also responsible for some post-secondary programmes such as primary and guidance teachers training colleges and Higher Institutes of Technical and Vocational Education.

Most universities are state institutions. University activities are coordinated by the Ministry of Culture and Higher Education, the High Council of the Cultural Revolution, and the Higher Council on Planning, and the Ministry of Health and Medicine.

Institutes of Technology offer two-year post-secondary programmes leading to the qualification of *Fogh-Diplom or Kardani* (Higher Technical Diploma/Technician 1st Class), which is also referred to as an associate degree.

Admission to higher education requires completion of upper secondary school and the one-year university preparatory programme and the National University Entrance Examination. Universities offer four-year programmes leading to the *Karshenasi* (sometimes referred to as Licence or bachelor's degree). The universities use a system of credits and programmes are semesterised. The *Karshenasi* requires between 130 - 140 semester hours of credit to complete, of which at least 60 credits must be in a major field. *Karshenasi* programmes can be completed as either 'non-continual' (*Karshenasi-napayvasteh*), with the award of a *Fogh-Diplom* / associate degree after two years and 67 - 72 credits, or as 'continual', after four years of study.

Following completion of a *Karshenasi* or *Licence* programme, students with good grades are eligible to take entrance examinations for access to postgraduate study. The degree of *Karshenasi-arshad napayvasteh* (sometimes called *Fogh Licence* or Master's degree) can be completed in two years of study. The Master's degree requires 32 to 36 credits and can be completed either through coursework or research. *Karshenasi-arshad payvasteh* (Integrated Professional Master's Degree) programmes are offered in the health sciences and may be six years in length after completion of university preparatory education. The degree of doctor of philosophy can be completed with a minimum of three years of study beyond the *Karshenasi-arshad-napayvasteh*. Students must sit for a comprehensive examination before moving to the research and dissertation phase of a doctoral programme.

Associate degrees programmes are available in six subject areas within which many areas of specialisation are available:

- Languages and Library Management - 16 areas of specialisation
- Professional courses – 15 areas of specialisation
- Mathematics and Technical courses – 150 areas of specialisation at Associate degrees, 75 vocational areas
- Experimental science – 130 areas of specialisation
- Humanities – 70 areas of specialisation at Associate Degree, 10 vocational areas
- Arts – 21 areas of specialisation at Associate Degree, 10 vocational areas

Some of the developments in relation to the associate degree programmes in Iran refer to an institute called INSTROCT. This institute is a recognised centre in Iran with international recognition and links to other higher education institutions such as Strathclyde University in Glasgow. INSTROCT is a member of the World Tourism Organisation. It is involved in implementing various specialised programmes in order to upgrade the knowledge of the hospitality and tourism industry in the country, by establishing Higher Education Centers in Hospitality and Tourism and Languages. The most recent development refers to the development of a three-year Bachelor of Arts programme where students receive an associate degree after completing the first two years. The programmes are semesterised and the commencement and completion of each semester coincides with other universities throughout the country. The students undergo an assessment following completion of the second year of study by Strathclyde University in Iran. Successful students shall be recognised as BA students of Strathclyde, and will have the privilege of using the benefits of the university. Students are awarded an associate degree following successful completion after year 2. The titles of Specialised courses offered include: Acquaintance with hotel management industry; Acquaintance with world tourism industry; Food and beverage management; Hotel Management; Hotel Marketing.

6. United Kingdom

6.1 Summary Description of Higher Education System

The higher education system of the United Kingdom is characterised by its diversity and the increasingly diffuse nature of its organisation and structures. Not only are there differences in the cultural traditions and structures of higher education between the constituent parts of the United Kingdom – most notably between Scotland, on the one hand, and England, Wales and Northern Ireland on the other – but there is also a very diverse body of higher education institutions, ranging widely in size, mission and history, operating within each of these parts, especially in England.

The diversity and diffusion of higher education in the United Kingdom has also been accentuated by the blurring of the traditional demarcation lines between vocational and academic programmes of study in recent years, and the recent and related emergence of a new vocationally oriented higher education qualification, the Foundation Degree. However, it is still possible to define UK higher education in a reasonably coherent fashion, albeit in the traditional terms of educational inputs. Adapting the Higher Education Statistics Agency's definition of what constitutes a higher education student, UK higher education can be defined as those programmes of study for which the level of instruction is above that of courses leading to the Advanced Level of the General Certificate of Education (GCE A-levels), the Advanced Higher Grade and Higher Grade of the Scottish Certificate of Education (SCE Advanced Highers/Highers), or the BTEC or SCOTVEC National Certificate/Diploma (ONC/OND).³⁹

Broadly speaking, higher education is provided by three main types of institutions: universities, colleges and institutions of higher education, and art and music colleges. In addition, a sizeable number of colleges of Further Education also offer higher education programmes. According to information published by the Higher Education Statistics Agency, there were 170 higher education institutions offering higher education qualifications in 2001-2, of which 133 were based in England, 13 in Wales, 20 in Scotland and 4 in Northern Ireland.⁴⁰ The qualifications that these institutions offer are not national awards, but awards made by the institutions themselves. Universities, university colleges and a small number of higher education colleges have the power – conferred by charter or act of parliament – to award their own degrees and qualifications. Degrees and other qualifications offered by the remaining higher education colleges are validated by external bodies such as a university or national accrediting body.

Undergraduate programmes leading to bachelors degrees with honours (usually known as honours degrees) form the largest group of higher education programmes. Typical courses leading to an honours degree last for three years (if taken full-time) in England,

³⁹ <http://www.hesa.ac.uk/holisdocs/pubinfo/student/studefs0102.htm>.

⁴⁰ Source: Higher Education Statistics Agency - <http://www.hesa.ac.uk/holisdocs/pubinfo/student/institution0102.htm>

Wales and Northern Ireland, and four years in Scotland. Thus in 2001-2, of the 380,915 higher education qualifications obtained, 244,915 or around 64% were for first or bachelor degrees, 40,310 or 11% were for all other undergraduate qualifications (diplomas, certificates etc) and 96,485 or 25% were for all postgraduate qualifications (masters, doctorates, postgraduate certificates in education etc).

Two new frameworks for higher education qualifications were published by the Quality Assurance Agency for Higher Education in 2001 - one for England, Wales and Northern Ireland and one for Scotland, the latter being an integral part of the wider Scottish Credit and Qualifications Framework that embraces all the main qualifications in Scotland from schools to postgraduate and from 'work-based' to 'academic'. Although differing in structure, both frameworks are intended to increase public understanding of the achievements represented by higher education qualifications, assure comparability of standards, identify progression routes and provide a definition of a common academic infrastructure within their respective domains. The main UK higher education short-cycle awards are included in these frameworks (see diagrams below).

Framework for higher education qualifications in England, Wales and Northern Ireland

1	Certificate	C level	Certificates of Higher Education
2	Intermediate	I level	Foundation degrees, ordinary (Bachelors) degrees, Diplomas of Higher Education and other higher diplomas
3	Honours	H level	Bachelor degrees with Honours, Graduate Certificates and Graduate Diplomas
4	Masters	M level	Masters degrees, Postgraduate Certificates and Postgraduate Diplomas
5	Doctoral	D level	Doctorates

Scottish Credit and Qualifications Framework

12		Doctorate		12
11		Masters	SVQ 5	11
10		Honours Degree		10
9		Ordinary Degree		9
8		HND/ HE Diploma	SVQ 4	8
7	Advanced Higher	HNC/ HE Certificate		7
6	Higher		SVQ 3	6
5	Int 2/Credit SG		SVQ 2	5
4	Int 1/General SG		SVQ 1	4
3	Access 3/Foundation			3
2	Access 2			2
1	Access 1			1

6.2 Main short-cycle awards

In the United Kingdom, there are three major short-cycle awards currently offered by higher education institutions. They are the **Foundation Degree** (awarded in England, Wales and Northern Ireland); the **Diploma of Higher Education** (awarded throughout

the United Kingdom); and the **Higher National Diploma** (awarded throughout the United Kingdom).

6.2.1 Foundation Degree

Launched in September 2001 in England, Wales and Northern Ireland, the foundation degree is a new vocationally-focused higher education qualification, designed in conjunction with private and public sector employers to meet skills shortages at the higher technician and associate professional levels (e.g. legal executives, marketing consultants, personnel officers). These are the levels at which skills are forecast to be most in demand – according to the Institute of Employment Research there will be 790,000 new jobs in associate professional and higher technician occupations in the UK by 2010.⁴¹ Foundation degrees are intended to integrate academic and work-based learning through close collaboration between employers/employer bodies and universities/colleges. A draft qualification benchmark for the Foundation degree, which sets out its particular purpose, general characteristics, and generic learning outcomes – the latter are drawn from the intermediate qualification descriptors in the Framework of Higher Education Qualifications for England, Wales and Northern Ireland - has been developed by the Quality Assurance Agency. This will remain in draft form until the findings of a review of a sample of the first tranche of Foundation Degrees, undertaken by the Quality Assurance Agency in 2002-3, have been incorporated. It is envisaged that the outcomes of the review will help to shape the final version of the benchmark document by identifying existing good practice and any gaps in the draft document.⁴²

Foundation Degrees are offered by universities in partnership with higher education colleges and further education colleges, but can also be delivered in the workplace, via the internet or by distance learning. Depending on the subject of study, a full-time Foundation Degree course takes two years, or three to four years pro-rata on a part-time basis. There are no standard/minimum entry requirements for Foundation Degree courses – decisions on eligibility are made by the university or college offering the course. Prior experiential learning in an appropriate commercial or industrial environment is one of the factors considered in assessing the suitability of candidates to undertake a Foundation Degree programme. The Foundation Degree offers a number of progression options including the opportunity to study for an honours degree, on the basis of a further 12 to 15 months full-time study (or longer if undertaken on a part-time basis). Foundation Degree graduates can also move on to other work-based professional qualifications. It is also intended that Foundation Degrees will offer a clear higher education progression route for employees who may be on training programmes such as Advanced Modern Apprenticeships or other vocational programmes, though it is

⁴¹ On this point see the Department for Education and Skills' progress report on the Foundation Degree: *Foundation Degrees. Meeting the need for higher level skills*, pp. 2-3 downloadable at <http://www.dfes.gov.uk/foundationdegreereport/>

⁴² http://www.qaa.ac.uk/public/foundation/foundation_statement.pdf

recognised that more work will be need to be undertaken to develop these new vocational pathways.

Since their introduction in 2001, over 12,000 students have signed up to Foundation degree programmes in England. There are currently 70 Foundation degree programmes on offer in a wide range of disciplines, ranging from Aircraft engineering, through Commercial Music, to Forensic Science, Hospitality, Leisure and Tourism, Police Studies and Visual Merchandising. A full list of the Foundation Degree programmes that commenced in 2001-2, including information on the mode in which they are delivered, and links to the institutions that have validated them and are offering them, is set out in Appendix 4 below.

The Foundation Degree is located at the Intermediate (I) level in the Framework for higher educational qualifications in England, Wales and Northern Ireland. The next level up is the Honours (H) level, which covers bachelor degrees with honours. In line with the generic qualification descriptor for qualifications at the Intermediate level, the Foundation Degree is intended to develop:

- work-specific skills relevant to a particular sector of industry
- key transferable skills, such as communication and problem solving
- generic skills such as reasoning, professionalism and work process management.

The UK Government has set a target of 50,000 Foundation Degree places in total to be achieved by 2006. Amongst the additional places will be 20,000 HND places that will be replaced by Foundation Degrees. The Department of Education and Skills, and other regulatory bodies such as the Higher Education Funding Council for England, the Quality Assurance Agency and Foundation Degree Forward, are currently working together with Edexcel to identify how this can be achieved.

At this juncture, it is difficult to assess how successful or otherwise the new qualification will be, as it is still very much in its infancy. A special review of a sample of Foundation Degrees launched in 2001-02 in England – 33 courses covering 3,100 students - was carried out by the Quality Assurance Agency in 2003. The ‘Overview Report’, published by QAA,⁴³ indicates that the agency has identified a number of teething troubles with the fledgling qualification, including:

- Only one third of the sample courses show ‘good practice’ in relation to the ‘clear articulation’ of progression routes
- There is scope for further development and assessment of students’ knowledge, understanding and skills – the reviewers found that ‘many’ students were achieving practical and vocational skills at the expense of higher-level, intellectual, analytical and reflective outcomes

⁴³ The report is downloadable from:
http://www.qaa.ac.uk/public/foundation/overview/foundation_overview.htm

- There is scope for the development of Foundation Degrees in a range of modes of attendance and at a range of locations to increase flexibility – of the sample only two-thirds were offered by consortia of institutions of higher and further education, just over one half were offered on one site only, just over one-third were offered as full-time programmes only and only one was offered by distance learning
- Around one-half of the courses need ‘significant development of work-based learning, in particular to address the variability of experiences of students across employment locations within a consortium’
- Only in a ‘few’ cases are employers ‘full members’ of the consortia running the programmes, a situation which limits the potential for sustained employer involvement in all aspects of the delivery and assessment of the programme, its review and evaluation.

Against this, however, the ‘Overview Report’ also highlights a number of areas of good practice, such as clearly articulated aims, well-designed curricula and a variety of teaching, learning and assessment methods; and states that ‘the majority of providers were successfully offering programmes of the required standard and quality’. In particular, the reviewers reported that they had:

- Confidence in the emerging standards and emerging achievement of 30 of the 33 programmes sampled
- Confidence in the quality of the students’ learning opportunities.

It appears, then, that it is still too early to make any definitive judgement on the Foundation Degree and its future role in the higher education system of England, Wales and Northern Ireland. As for Scotland, there are no plans to date - according to the Department of Education and Skills’ Foundation degree website - to develop the qualification there.⁴⁴

6.2.2 The Higher National Diploma

The Higher National Diploma (HND) is a vocational qualification, which is normally awarded after the completion of two years of full-time study or three years of part-time study. HND programmes cover the knowledge and skills needed for training towards jobs at middle management or technician level. They are provided by Colleges of Further Education, Colleges of Higher Education and some universities, and are available in a wide range of disciplines including Art and Design, Business, Engineering, IT and Computing, Media, Public Services, Sport and Exercise Sciences, Telecommunications and Travel and Tourism (see Table 6a below for information on the most popular discipline areas).

⁴⁴ <http://www.foundationdegree.org.uk/faq/>

The Scottish Qualifications Authority is the national awarding and accrediting body in Scotland responsible for developing, quality assuring and certificating qualifications other than degrees, including the Higher National Diploma. In England, Wales and Northern Ireland, the award is accredited by Edexcel and is often designated as a 'BTEC HND' in reference to the Business and Technology Education Council (BTEC), one of Edexcel's progenitor organizations.

In Scotland, the HND is placed at Level 8 of the Scottish Credit and Qualifications Framework, one level below the Ordinary Bachelor Degree. With regard to England, Wales and Northern Ireland, the QAA has examined how far the characteristics of BTEC Higher National Diplomas as a category of qualification match those of the qualification descriptors on which the Framework for Higher Education Qualifications (FHEQ) is based. In November 2002, it concluded, in agreement with the other regulatory authorities, that there was strong evidence that they were very close to those of the FHEQ's Intermediate level qualifications. The QAA therefore proposed that BTEC Higher National Diplomas be treated as equivalent in level to higher education qualifications offered in the 'Intermediate' category, the level at which the Foundation degree is placed.⁴⁵

In broad terms, then, the HND is equivalent to the first two years of degree level study and students with a HND qualification are often eligible to progress to a degree. Some courses run so that students can graduate with a HND after two years or elect to continue for a third year to obtain a Bachelor's degree.⁴⁶ In other instances, HND graduates can apply for entrance directly onto the second or third year of degree programmes in the same subject at different institutions, although some institutions will only accept HNDs as entry qualifications onto the first year of a degree programmes. Anecdotal evidence provided by the Quality Assurance Agency suggests that articulation between HND and degree programmes is more prevalent in England than in Scotland, where the HND is viewed as a 'parallel' award to higher education awards at the same level. Precise figures on articulation and progression rates are not readily available but surveys on the first destination of HND graduates conducted by the Association of Graduate Careers Advisory Services, suggest that there is a strong and steady level of progression. In 2000, for example, 63% of 9, 410 respondents said that they had entered further study or training. The majority of this group, 59% of the total cohort, were studying in the UK for a first degree.⁴⁷ Similarly, in 1999, 69% of the University of Derby's Higher

⁴⁵ http://www.qca.org.uk/nq/framework/joint_statement_on_btec_in_nqf.asp

⁴⁶ See for example, the HND and BSc (Honours) Degree in Engineering Design and Technology at Sheffield Hallam University:
http://www2.shu.ac.uk/prospectus/op_uglookup1.cfm?id_num=ENG024&status=TN

⁴⁷ http://www.prospects.ac.uk/student/cidd/wdgd/articles02/ed_HND.htm and
<http://www.prospects.ac.uk/student/cidd/wdgd/charts02/HND.htm>

National Diploma graduates went on to further study, as against 19% who went directly into employment.⁴⁸

Information on the numbers obtaining HNDs is, for presentation purposes, normally combined with data on the Diploma of Higher Education by the Higher Education Statistics Agency. The combined numbers of full-time students obtaining such awards has risen steadily from c. 24,400 in 1995-6 to 29,400 in 2001-2 (Table 6a below), though this masks a gradual decline in the numbers specifically taking HNDs. According to the Universities and Colleges Admission Service (UCAS), there was an 8.8% decrease in the overall numbers applying for entry into HND/HNC programmes in 2002, as opposed to a 2.9% increase in those applying for degree and diploma of higher education programmes.⁴⁹

Table 6a Numbers of Higher National Diplomas/Diplomas of Higher Education Obtained 1995-6 to 2001-2⁵⁰

Academic Year	Full-time	Part-time
1995-96	24,328	2,730
1996-97	25,752	3,260
1997-98	24,575	3,942
1998-99	25,749	4,862
1999-00	25,090	5,240
2000-01	26,920	5,880
2001-02	29,400	6,910

The most popular subject areas for Higher National Diploma and Diplomas of Higher Education, according to Higher Education Statistics Agency figures, are in subjects allied to medicine, business and administrative studies, computer science, social, economic and political studies, engineering and technology, creative arts and design, and agriculture and related areas (Table 6b overleaf).

⁴⁸ Student Services Career Development Centre, University of Derby ‘Options after a Higher National Diploma’, p. 1, downloadable at <http://www.derby.ac.uk/careers/handouts/OptionsafteraHND.pdf>

⁴⁹ Source: <http://www.ucas.ac.uk/new/press/archive/news2002/news150202.html> . This point is also made in the Department for Education and Skills’ progress report *Foundation Degrees. Meeting the need for higher level skills*, p. 19 downloadable at <http://www.dfes.gov.uk/foundationdegreereport/>

⁵⁰ Source: Higher Education Statistics Agency - <http://www.hesa.ac.uk/holisdocs/pubinfo/stud.htm>

Table 6b Numbers of Higher National Diplomas/Diplomas of Higher Education Obtained by Broad Subject Area (Full-time and Part-time combined), 1995-6 to 2001-2⁵¹

Subject Area	1995-6	1996-7	1997-8	1998-9	1999-00	2000-01	2001-2
Subjects allied to medicine	4486	6928	8341	11079	12470	13740	17020
Business and Administrative Studies	6989	6985	6276	5868	5460	4800	4685
Computer Science	2520	2494	2379	3645	2730	3005	3345
Social, Economic and Political Studies	2563	2648	2424	2219	1930	2120	2250
Engineering and Technology	3126	2957	2329	2136	1990	2020	2020
Creative Arts and Design	2399	2406	2003	2078	1880	2130	2355
Agriculture and Related Subjects	1149	1167	1158	1164	970	1170	990

6.2.3 The Diploma of Higher Education

Diploma of Higher Education programmes are offered and accredited by a number of universities and colleges of higher education throughout the United Kingdom. They have a similar vocational or job-related focus to HND programmes, to which they are roughly equivalent, but there are far fewer of them in existence. They generally consist of two years of full-time study, or 3-4 years of part-time study, and are available in a restricted range of subject areas such as Accounting, Construction, Nursing, Science and Technology and Textile design.

Many Diplomas of Higher Education consist of the core elements of the first two years of a related degree programme, and allow for progression for students who wish to undertake a degree, usually involving an additional year of study. In such cases, progression is normally dependent upon the student meeting pre-set levels of performance at the diploma level. Alternatively, diploma graduates can look for employment immediately after graduating, usually at middle management or technician level. There are also a number of Diploma of Higher Education programmes which are stand alone programmes and which lead to specific careers in areas such as Nursing, Midwifery or Ophthalmic Dispensing. Nursing diplomas are normally comprised of three years of study.

The Diploma of Higher Education is placed at Level 8 of the Scottish Credit and Qualifications Framework, one level below the Ordinary Bachelor degree level; and at the Intermediate level of the Framework of Higher Education Qualifications in England, Wales and Northern Ireland, one level below the Honours bachelor degree level. In line with qualification descriptors for awards at both of these levels, Diploma of Higher Education graduates are expected to have developed a sound understanding of the principles in their field of study, and to have learned to apply those principles more widely. In addition, they will have learned to evaluate the appropriateness of different

⁵¹ Compiled from statistics published by Higher Education Statistics Agency: <http://www.hesa.ac.uk/holisdocs/pubinfo/stud.htm>

approaches to solving problems and to have the qualities necessary for employment in situations requiring the exercise of personal responsibility and decision-making. Statistical data on the numbers obtaining Diplomas in Higher Education and the most popular subject areas associated with them are set out in Tables 6a and 6b above.

6.3 Current Policy Context for Short-cycle Awards

With the launch of the Foundation Degree, short-cycle higher education has become a central element, if not the central element, in the current UK government's higher education policy, at least in so far as it affects England, Wales and Northern Ireland. In fact, the Foundation degree is viewed as a key part of a range of educational initiatives and reforms, including:

14-19 Curriculum reform: the development of the Foundation Degree is thought to fit in with one of the main aims of the 14-19 curriculum reform, which is to transform the learning experience of young people, so that by the age of 16 they are committed to continuing learning, whether in school, college or the workplace.

The Skills Strategy: in July 2003 the government launched the National Skills Strategy, one of the key aims of which is to introduce a more flexible and relevant qualifications framework which will allow people to build more precisely the skills they need. Foundation Degrees are regarded as being a key part of the new qualifications framework as they are intended to support progression to higher education through the vocational route.

The Future of Higher Education: the Higher Education White Paper of January 2003 made the commitment that new growth in higher education during the current spending review period would be concentrated on Foundation degrees, making clear that their introduction into the HE curriculum is not to be focused only on those entering vocational education, but also upon those already in employment and wishing to improve their career prospects and those who wish to return to the labour market.

The Government's commitment to the Foundation Degree as a vehicle for educational change is visible in a series of measures announced during the course of 2003, including the establishment of a Task Force under the chairmanship of Professor Leslie Wagner, chancellor of the University of Derby, to advise Ministers and the Department of Education and Skills on the future strategy to implement the Government's plans on the Foundation Degree as set out in the White Paper. In addition, a new national body entitled Foundation Degree Forward is being established to support and promote the development and validation of high quality Foundation Degrees. Working closely with the Task Force, Foundation Degree Forward will provide inter alia a validation and quality assurance support service for those institutions and organizations without degree awarding powers. Finally, £32 million has also been made available by the Government to fund this developmental work, to promote and advertise the qualification and to fund additional Foundation Degree places.

6.4 Other Short-cycle Awards

There are a number of other short-cycle higher education awards made in the United Kingdom at present. These include, most notably, the Higher National Certificate and the Certificate of Higher Education. There are also some isolated examples of Associate Degrees being awarded.

6.4.1 Higher National Certificate

Offered by Colleges of Further and Higher Education throughout the United Kingdom, Higher National Certificates are designed to prepare learners for work by giving them the skills and knowledge to do a particular job, or for progression to further study. People who gain HNC awards are qualified to work in technician, supervisory or technologist occupations. HNCs cover a wide range of subjects from Accountancy and Business and Finance, through Computing to Horticulture, Music, Sports Turf, and various science subjects. All programmes are made up of higher national unit credits – one credit represents roughly 40 hours of learning. A HNC consists of up to 12 credits and usually takes one year to complete full-time and two years to complete if studying part-time, the latter option being the most popular option for the majority of students. It is possible to progress to degree level studies through the HNC/HND route.

As with the HND, the HNC is accredited, quality assured and awarded by the Scottish Qualifications Authority and is at Level 7 in the Scottish Credit and Qualifications Framework, one level below the level of Higher National Diplomas and Diplomas of Higher Education. In England, Wales and Northern Ireland, the qualification is accredited and awarded through Edexcel. In a Joint statement by the regulatory authorities and the Quality Assurance Agency on the position of Edexcel's BTEC Higher National Certificates and Diplomas in the Framework for Higher Education Qualifications (issued in November 2002), it was concluded that it was not yet possible to establish a single equivalence for the HNC to the Framework for Higher Education Qualifications in England, Wales and Northern Ireland, largely because it had proved impossible at the time to identify a common model of the qualification.

6.4.2 Certificate of Higher Education

Certificate of Higher Education programmes are offered and accredited by a number of universities and colleges of higher education throughout the United Kingdom. They are often administered by Adult or Continuing Education centres or departments, and designed for return-to-education learners. In broad terms, they usually correspond to the first year of a bachelor level degree, and many allow for progression to bachelor programmes. They can be studied on full-time or part-time basis. They are available in a wide-range of disciplines, ranging from various arts subjects, through applied professional studies, astronomy and dance teaching, to social sciences.

Certificates of Higher education are placed at Level 1 Certificate (C) in the Framework for Higher Education Qualifications in England, Wales and Northern Ireland. Certificate graduates are intended to have a sound knowledge of the basic concepts of a subject, and are expected to have learned how to take different approaches to solving problems. They are also expected to communicate accurately, and should have the qualities needed for employment requiring the exercise of some personal responsibility. Like the Higher National Certificate, the Certificate of Higher Education is at Level 7 in the Scottish Credit and Qualifications Framework.

6.4.3 Associate Degrees/Associate Bachelor Degree (University of Ulster)

Associate Degrees: Based on research to date, it can be ascertained that ten Colleges of Higher Education in the United Kingdom, including Dudley College in the West Midlands of England, are accredited to award American Associate Degrees.⁵³ Other colleges who are accredited in this way include City College Birmingham and Solihull College.⁵⁴ In the Dudley system, students undertaking any Level 3 (QCA National Qualifications Framework) programmes, such as the GCE 'A' Level Programme, GNVQ Advanced Level, the BTEC National Diploma or the BTEC Higher National Diploma/Certificate are entitled to study concurrently for a US Associate in Arts Degree, by taking 60 US credits worth of general education modules (English, Humanities, Mathematics, Natural Sciences and Social Sciences). Dudley College is accredited by the North Central Association of American Universities to offer the Associate Degree in partnership with Harold Washington College, Chicago. Students registered for the Associate Degree have the opportunity to study some of their classes in Chicago.

The dual accreditation model outlined above emerged out of a project jointly funded by the US Department of Education's Fund for the Improvement of Postsecondary Education and the European Commission on 'Developing Fast Track Articulation between Vocational and Higher Education Programmes'.⁵⁵ One strand of this project - which involved a consortia of institutions led on the US side by Harold Washington College, Chicago, and on the European side by City College, Birmingham - looked at 'Delivering American Associate Degrees in the UK and Europe'. To achieve this, the project group developed inter alia a model for the articulation of US Associate degrees with European vocational programmes or qualifications to support accelerated progression into higher education, and new and transferable curricula for joint accreditation to broaden the context of existing European and US qualifications.⁵⁶ Two of the colleges who participated in the study, and have been accredited to provide

⁵³ <http://www.dudleycol.ac.uk/courses/aas/aas.htm>

⁵⁴ <http://hwashton.ccc.edu/main.asp?section=pgms&navpage=iadp>

⁵⁵ <http://www.fipse.aed.org/grantshow.cfm?grantNumber=P116J980022> ;
http://europa.eu.int/comm/education/programmes/eu-usa/sele97_en.html

⁵⁶ The final report on this strand is available at
http://europa.eu.int/comm/education/programmes/eu-usa/sele97_en.html.

Associate Degrees – New College Nottingham and City College Birmingham – appear not to be offering them anymore.

Associate Bachelor Degree, University of Ulster: The University of Ulster introduced a new qualification called the Associate Bachelor Degree in 2002. This is part of a broader strategy to clarify the Intermediate level qualification structure in the University, on the grounds that this level is currently, and confusingly, congested. The University plans to move to a system of two intermediate qualifications, consisting of the more vocationally-oriented Foundation Degree (see above), and the Associate Bachelors Degree, which is more academic in nature than the Foundation Degree and does not include any work-based learning. Both qualifications are 2 years in duration on a full-time basis and both offer progression opportunities to related Honours degree programmes. In both cases, progression is into the second year of the Honours degree. The part-time mode of the Associate Bachelors is of 3-4 years in duration. There are currently four Associate Bachelor programmes on offer in the University of Ulster: in Computing (both full-time and part-time modes); Computing Science; Computing with Mathematics; and Environmental Science. The first substantive cohorts of Associate Bachelor students will graduate in the summer of 2004.

7. United States of America

7.1 Summary Description of Higher Education System⁵⁷

The higher education or postsecondary education system in the USA is characterised by its diversity and autonomy. Like Canada (see section 2 above), the federal government has no responsibilities or jurisdiction with regard to the recognition of educational institutions, programmes or curricula, or degrees or other qualifications. The majority of US postsecondary institutions are licensed, or chartered, by a state or municipal government to operate under the ownership of either a government (if public) or a private corporation (if independent), and may be for-profit or not-for-profit enterprises.

At the heart of the US higher education lies a strong principle of voluntarism, which is most evident in relation to the accreditation system. Accreditation is a self-regulating process of quality control engaged in by the higher education community to guarantee minimum standards of academic capability, administrative competence, and to promote mutual recognition of qualifications within the system. Six regional accreditation associations set minimum standards for institutions chartered in the states of their respective jurisdictions. In addition, other recognised accrediting associations set and regulate minimum standards for individual subjects or related subjects, particularly in professional fields such as Nursing and Engineering. Within this voluntary system, qualifications are afforded minimal public legal protection as qualifications. However, mechanisms and conventions have evolved which constitute a de facto framework of qualifications based around a series of ‘portal’ qualifications – high school diploma, associate degree, bachelors degree, graduate degree. Each of these can form the basis for progression to the succeeding level.⁵⁸

Higher education institutions themselves are generally defined and classified in relation to the type and level of qualifications they award. Thus according to *The Carnegie Classification of Institutions of Higher Education 2000 Edition*, there are 3, 941 higher education institutions currently engaged in higher education in the USA, comprising Doctoral/Research Universities (6.6% of the total), Master’s Colleges and Universities (15.5% of the total), Baccalaureate Colleges (15.4% of the total), and Associate’s Colleges (42.3% of the total). The remaining 19.4% of institutions are specialised institutions such as theological seminaries, medical schools, engineering schools and schools of business and management.⁵⁹ In 1997-8, these higher education institutions

⁵⁷ The following description relies heavily on the UNESCO-based International Association of Universities’ description of higher education systems: <http://www.unesco.org/iau/whed.html>

⁵⁸ ‘Frameworks of qualifications: A review of developments outside the State’, National Qualifications Authority of Ireland Working Paper, p. 3 (<http://www.nqai.ie/frameworkdev.htm>)

⁵⁹ *The Carnegie Classification of Institutions of Higher Education 2000 Edition* (Carnegie Foundation for the Advancement of Teaching, downloadable from <http://www.carnegiefoundation.org/Classification/>), p. 5.

conferred the following numbers of awards: Associate Degrees, 557, 626; Bachelor Degrees, 1, 192, 487; Master's Degrees 429,653; Doctoral Degrees, 46, 212.⁶⁰

7.2 Main short-cycle awards

The most dominant and long-established short-cycle higher education award offered in the United States is the **Associate Degree**. In existence since the nineteenth century, the Associate Degree is normally awarded after the completion of 2 years of full-time study, or around 60 semester credits (roughly 20 courses) accumulated on a part-time basis; and is generally designed for one of two objectives, either to prepare the learner for an occupation, or to provide a foundation for a baccalaureate degree programme.

Associate degrees are available from public community colleges, private 2-year colleges, for-profit technical institutes, and many 4-year colleges and universities. The majority of them, however, some 86%, are conferred by what the Carnegie Foundation classifies as 'associate's colleges', i.e., colleges which offer two year associate degree and one year certificate programmes but, with few exceptions, award no bachelor degrees. In 2000 there were 1,669 institutions classified as 'associate's colleges' in the USA - comprised of 1,025 public or community colleges and 159 private not -for-profit and 485 private for-profit institutions. In the academic year 1997-8, such colleges conferred 481,306 associate degrees.⁶¹

Flexibility is one of the most notable features of the award, both in terms of the range of disciplines for which they are awarded, and the manner in which associate degree programmes are delivered. Thus, for example, associate degrees can be obtained in such diverse disciplines as human services (social work), engineering technology, nursing, plastics engineering, mortuary sciences, graphic design, multimedia and design, general studies, business administration, paralegal studies and railroading to name but a few. It is also the award that is most commonly taken by learners who wish to study from home. According to US Department of Education statistics, more than 9% of associate degree students were using distance learning in 1998,⁶² and this looks set to escalate, given the increased proliferation of on-line programmes that have emerged in the intervening years.

The best way of analysing the award and its significance in the US higher education system – on the grounds that it serves a dual purpose - is to examine in some detail the two basic associate degree categories: occupational and transfer.

⁶⁰ Ibid., pp. 23, 25.

⁶¹ *The Carnegie Classification of Institutions of Higher Education 2000 Edition* (Carnegie Foundation for the Advancement of Teaching, downloadable from <http://www.carnegiefoundation.org/Classification/>), pp. 1, 5-6, 23-4.

⁶² Cited in O. Crosby, 'Associate Degree: Two years to a career or a jump start to a bachelor's degree', *Occupational Outlook Quarterly* (Winter 2002-3), p. 2.

Occupational Associate Degrees: these associate degrees train students for specific careers. In addition to taking general education classes – mathematics, general communication skills (speech and writing) and arts/humanities type courses – students take courses specific to an occupational major. This division between general educational and occupation-specific course components is typical of many occupational associate degrees, and may be illustrated by a comparison of the general curriculum requirements for the Associate of Applied Science Degree in Railroading Maintenance and Operations at Montana State University- Northern and Associate Science Degree in Nursing at Chesapeake College, Maryland (table 7a below). The main implication of this common format of curriculum design is that while there appear to be no generic standards based on learning outcomes in existence for the occupational associate degree, such standards are certainly implicit in the curriculum design criteria laid down by the regional accrediting agencies and the professional bodies and associations.⁶³

Table 7a Comparison of curriculum requirements of occupational associate degrees: Railroading Maintenance and Operations (Montana State University- Northern) and Nursing (Chesapeake College)

Railroading Operations and Management ⁶⁴		Nursing ⁶⁵	
Component	Credit	Component	Credit
General Requirements		General Requirements	
Communications	9	Communications	9
Humanities	3	Humanities	3
Science and Mathematics	13	Science (Biology) and Mathematics	15
Social Science/Economics	3	Sociology	3
Computer concepts and use	3		
Health/Physical Education	1		
Occupational Requirements		Occupational Requirements	
Railroad Courses	12	Nursing courses	37
Career Cluster (Diesel Machinist, Electronics, Welding specialities etc)	17-19	Psychology	6

⁶³ For some examples see ‘Computing Curricula 2003: Guidelines for Associate-Degree Curricula in Computer Science’, Joint Institute of Electrical and Electronics Engineers-Computer Society and Association for Computing Machinery Task Force on Computing Curricula (www.computer.or/education/cc2001/); or the Accreditation Manual and Interpretative Guidelines of the National League of Nursing Accrediting Commission (http://www.nlnac.org/Standards%20&%20Criteria%202002/associate_s&c_2002.htm).

⁶⁴ Source: http://www.nmclites.edu/academics/cots/railroad/msun_rr.html.

⁶⁵ Source: http://www.chesapeake.edu/allied_health/nurpro.asp.

As one would expect, most occupational associate degree programmes have a very pronounced practical element. Teachers in associate degree programmes, according to Department of Education surveys, spend more of their time conducting demonstrations and leading practical exercises, than they do in traditional lecturing. In addition, the facilities in which classes are conducted often mirror the workplace, faculty staff often work in the field in which they teach, and work placement opportunities, either long or short-term, generally form an essential part of the programme.

The acquisition of an associate degree is not, of course, a requirement for every available job in any single occupation, but award holders are generally held in esteem by employers on account of the specialised career training they have undergone and the transferable skills they acquire – communication and organisation skills, the ability to commit to long-term projects etc – on completion of their study programmes. One effect of this is that those with an associate degree generally earn more – on average an extra \$128 dollars per week in 2001, according to Bureau of Labour Statistics - than those whose highest level of educational attainment is a high school diploma. More significantly, although job prospects are highly variable across the different occupations, the Bureau of Labour Statistics has predicted that, between 2000 and 2010, a significant number of the fastest growing occupations and those with plentiful job openings are those which often require employees with an associate degree. Table 7b below lists these projected job openings.

Table 7b Projected openings (2000-10) in occupations commonly held by workers with an Associate Degree⁶⁶

Occupation	Job openings for workers new to the occupation (in thousands)
Registered nurse	1,000,000
Computer support specialist	510,000
Supervisors, administrative support occupation	400,000
Licensed practical nurse	320,000
Electrician	250,000
Hairdresser and cosmetologist	240,000
Electrical and electronic equipment repairer	180,000
Engineering and related technologist and technician	170,000
Designer	150,000
Dental assistant	140,000
Clinical laboratory technologist and technician	120,000
Drafting occupations	110,000
Medical records and health information technician	90,000
Dental hygienist	80,000

Note: For these occupations, either 15% of workers have an associate degree or Bureau of Labour Statistics analysts consider an associate degree to be the most significant source of job training.

⁶⁶ Source: Crosby, 'Associate Degree', p. 9.

Not all holders of occupational associate degrees, however, go directly into employment. Some go on to study for a bachelors degree, having transferred some of their credit. Various titles are used for named occupational associate degree awards including, associate in applied science, associate in applied arts, associate in applied technology and associate in occupational studies, though the American Association of Community Colleges, in its 'Position Statement on the Associate Degree', has tried to limit and regulate such usage.⁶⁷

Transfer Associate Degrees: these awards are designed to be a first step towards the acquisition of a bachelor's degree. Students on transfer associate degree programmes take the introductory courses or general education core – usually in writing, literature, science and mathematics - of a baccalaureate programme. These courses correspond to the freshman and sophomore levels of a four year programme and, on successful completion, students graduate with an associate in arts or associate in science degree, and are usually eligible to transfer about half the credits they will need for their bachelor's degree in a four year college. It should be noted, however, that transfer can and often does occur before the associate degree is completed.

One of the main advantages of undertaking a transfer associate degree programme is the fact that such courses provide a means of saving money for the learner. In the 2000-01 academic year, for example, the average in-state tuition and fees were \$1359 at public 2-year community colleges, as against \$3506 at public 4 year colleges, an average saving of over \$2000. Moreover, because many associate degree programmes are offered at community colleges, students can live at home and avoid the expenses associated with relocating to a more distant 4 year college; while it is reckoned that the cost of an associate degree is rising more slowly than that of a bachelor degree.⁶⁸

At the heart of the transfer associate degree system are the articulation policies which have been developed to enable students transfer from community colleges to 4-year institutions. No single model exists for such articulation policies. Traditionally, formal articulation agreements between 2 year and 4 year institutions existed on a voluntary basis and, despite the cost of monitoring and maintaining them, many such arrangements still exist. For example, one Maryland community college had individual articulation agreements with more than 20 local and regional 4-year institutions. There are also many dual admissions programmes in operation: in such arrangements enrolment in a particular 2 year college guarantees admission to the partner 4 year college once the requirements of the associate degree in the 2 year college are fulfilled. Rutgers University in New Jersey operates this dual admissions system with some community

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http://www.aacc.nche.edu/Content/ContentGroups/Policy_Documents/AACC_Position_Statement_on_the_Associate_Degree.htm

⁶⁸ Crosby, 'Associate Degree', p. 4.

colleges.⁶⁹ Since the 1960s, there has been increasing state involvement in articulation agreements. An example of this is the Illinois Articulation Initiative of 1993, which has sought to create a statewide General Education Core curriculum made up of 3 communication courses; 1 to 2 maths courses; 1 Physical sciences course and 1 life sciences course; 3 Humanities/Fine Arts courses and 3 social and behavioural science courses. Students who take these courses are guaranteed their credits will satisfy the general education requirements at the institution to which they transfer. At the moment there are 48 community or public 2 year colleges participating in the scheme, seven 2 year private colleges, 12 public universities including Chicago State University and the University of Illinois at Chicago and Urbana, and 44 private 4 year institutions including DePaul University and the Illinois Institute of Technology.⁷⁰

These articulation and transfer arrangements are a subject of major debate at present. Although most community college students state that they aspire to a bachelor's degree, less than one quarter transfer to four year programmes, according to US Department of Education statistics, while less than a tenth who begin in two year colleges ever complete a bachelor's degree.⁷¹ While various reasons have been put forward to explain the general lack of success in the transfer of students from 2 to 4 year programmes – the increasing emphasis on the development of occupational associate degrees as exit points, the economic imperative for community colleges to develop non-credit and continuing education programmes in an age where public funding of credit programmes is under pressure, or the ill-preparedness of many students coming into community colleges from high school – many, especially within the community college sector, feel the need to address it, as the transfer function is the primary way that such colleges fulfill their mission as the nation's primary site of equal access to higher education, especially for minority groups like the Hispanic and Afro-American communities. There is, thus, a major call for operation and structural reforms in community colleges to ensure that transfer education is improved, that faculty take better care of their students during their time in community colleges, including familiarising them with 4 year colleges ahead of their transfers, and that better information protocols are observed in terms of labeling transfer courses.⁷²

⁶⁹ On the issue of articulation generally see Tronie Rifkin, 'Improving Articulation Policy to Increase Transfer', Education Commission of the States Policy Paper September 1998 downloadable at http://www.communitycollegepolicy.org/pdf/2265_articulation.pdf

⁷⁰ On Illinois see <http://www.itransfer.org/>

⁷¹ Figures cited in T.R. Bailey, 'Community Colleges in the 21st Century: Challenges and Opportunities' Community College Research Centre Brief, no. 15 (Jan 2003), p. 1 (<http://www.tc.columbia.edu/~iee/ccrc/PAPERS/Briefs/brief15.pdf>). See also the figures cited in Amaury Nora's essay 'Reexamining the Community College Mission' on the Association of Community Colleges' website: http://www.aacc.nche.edu/Content/NavigationMenu/ResourceCenter/Projects_Partnerships/Curren/NewExpeditions/IssuePapers/Reexamining_References.htm

⁷² On the debate generally see the sources cited in note 11 above.

Other higher education short-cycle awards

The other major short-cycle award in US higher education is the certificate. The certificate is normally awarded for one year of credited full-time study at a community college (or the part-time equivalent), and normally corresponds to the first year of an associate degree programme. At many colleges, students receive certificates after 1 year or less of study and then continue studying towards an associate degree. This gives them an immediate qualification which they can use in the workplace while continuing their studies. Table 7b gives a breakdown of the Top 10 Community College Certificates and Associate Degrees awarded in 1996-7.

Table 7b: Top 10 Community College Certificates and Associate Degrees awarded in 1996-7⁷³

Certificate	Awarded	Associate Degree	Awarded
Health professions and related sciences	56659	Liberal/general studies	167448
Business management and administrative services	24176	Health professions and related sciences	76848
Mechanics and repairers	14888	Business management and administrative services	71766
Protective services	13507	Engineering-related technologies	20208
Precision production trades	9486	Protective services	17445
Vocational Home Economics	7595	Mechanics and repairers	9747
Personal and Miscellaneous services	6744	Education	9687
Engineering-related technologies	6203	Visual and performing arts	8757
Construction trades	5544	Multi/interdisciplinary studies	8246
Transportational and Material moving workers	4935	Computer and Information sciences	7701

⁷³ Source: National Centre for Education Statistics reproduced at http://www.aacc.nche.edu/Content/ContentGroups/statistics/64-65_Correction.pdf

Appendix 1

Terms of Reference of Joint Study

- To explore and gather information on the awards' structures and titles for higher education and training, up to and including bachelor degree level, that are in operation in
 - (i) the United Kingdom,
 - (ii) Europe generally
 - (iii) The United States
 - (iv) Australia
 - (v) Hong Kong
 - (vi) and the wider international scene.
- To explore and report on the particular educational policy contexts in which these awards' structures operate.
- The aim is that this work will build upon the research base already set out by the Council as part of the consultation process on award-type titles.

The intention is that the exploration of UK developments will involve meeting representatives of the Quality Assurance Agency. It is not envisaged that study visits to any other jurisdictions will be carried out.

Template for Country/Region Reports on International Short-cycle HET Awards' Structures

Name of Country/Geographical Region: e.g. United Kingdom, Europe etc

Description of main short-cycle awards

- list major short-cycle HET award-types
- describe, where known, features such as:

- purpose
- who makes the awards
- nature of provision
- duration
- whether the award-type has a pronounced vocational or academic orientation or both
- the articulation/progression possibilities associated with the award
- the employment possibilities associated with the award
- disciplines covered
- historical longevity – how long has the award been in existence
- generic standards – are there any? What are their nature?
- Popularity of award

Contexts of Major short-cycle awards:

This section should describe the broader educational contexts in which the short-cycle award(s) operate, including the structural and policy contexts. Questions that might be asked to prompt the drafting of this section of the country report would include:

Does the award-type exist to fulfill a particular publicly enunciated, government-endorsed or supported function/need?

Does it fit within a clearly defined or understood awards structure e.g. within a framework or well-established hierarchy of awards? If so, how?

Other/minor short cycle awards

This section should give a brief description of other short-cycle awards that are made or offered in the country/geographical region under consideration

Appendixes

Statistical information/tables might be included if they are readily available and pertinent.

Appendix 2

**From DEST – Higher Education Statistics
Students 2003**

Table 21. All Students by Level of Course, Broad Field of Education and Gender, Submission 1 2003

Level of Course	Natural and Physical Sciences	Information Technology	Engineering and Related Technologies	Architecture and Building	Agriculture, Environmental and Related Studies	Health	Education	Management and Commerce	Society and Culture	Creative Arts	Food, Hospitality and Personal Services	Mixed Field Programmes	Non-award courses	TOTAL (a)
	Males													
Doctorate by Research	3,371	779	2,603	239	802	1,679	1,207	1,724	3,555	521	0	0	0	16,479
Doctorate by Coursework	3	30	0	0	2	29	44	523	140	7	0	0	0	778
Master's by Research	546	207	853	148	200	366	278	227	909	527	0	0	0	4,261
Master's by Coursework	821	8,186	3,969	687	591	2,018	2,586	29,659	5,639	858	0	0	0	54,993
Postgrad. Qual/Prelim.	33	30	29	24	4	44	2	18	43	28	0	0	0	255
Grad.(Post) Dip. - new area	257	1,514	455	242	232	705	2,436	3,211	1,721	364	2	0	0	11,139
Grad.(Post) Dip. - ext area	151	842	188	118	59	638	333	1,280	794	109	0	0	0	4,512
Graduate Certificate	251	388	833	210	174	532	639	5,058	740	148	7	0	0	8,980
Bachelor's Graduate Entry	42	22	4	695	2	1,349	1,247	190	1,451	20	0	0	0	4,969
Bachelor's Honours	1,218	454	314	17	123	127	41	528	1,478	391	0	0	0	4,519
Bachelor's Pass	24,294	39,181	39,271	7,912	5,657	17,209	12,117	67,551	43,592	15,226	11	0	0	247,206
Associate Degree	3	30	406	0	133	15	56	30	207	39	0	0	0	919
Advanced Diploma (AQF)	58	36	118	37	512	165	58	248	316	60	24	0	0	1,632
Diploma (AQF)	63	54	79	12	276	65	58	57	2,255	60	0	0	0	2,979
Other award courses	213	44	336	15	149	132	17	507	293	15	0	0	0	1,721
Enabling courses	38	17	47	0	62	3	208	0	659	229	0	467	0	1,730
Non-award courses	0	0	0	0	0	0	0	0	0	0	0	0	7,433	7,433
Total	31,362	51,814	49,505	10,356	8,978	25,076	21,327	110,811	63,792	18,602	44	467	7,433	374,505
Total Submission 1 2002	30,529	52,429	47,047	9,940	9,101	24,375	20,772	102,431	60,988	17,653	31	429	6,743	358,440
Total Submission 1 2001	29,493	46,822	45,195	9,629	9,155	23,326	18,666	95,280	59,535	15,834	47	527	5,952	337,232
Females														
Doctorate by Research	2,844	253	656	167	613	2,806	1,849	1,045	4,777	730	0	0	0	15,734
Doctorate by Coursework	2	6	0	0	0	31	62	166	422	2	0	0	0	691
Master's by Research	414	77	191	87	140	652	657	200	1,175	757	0	0	0	4,350
Master's by Coursework	622	2,699	747	479	663	4,894	6,027	20,396	9,077	1,785	0	0	0	47,375
Postgrad. Qual/Prelim.	18	7	7	15	3	141	11	9	91	36	0	0	0	338
Grad.(Post) Dip. - new area	213	593	111	123	225	1,718	5,063	2,758	3,550	787	0	0	0	15,140
Grad.(Post) Dip. - ext area	216	323	37	98	63	2,346	580	972	2,007	290	0	0	0	6,931
Graduate Certificate	205	139	143	96	125	1,981	2,176	3,406	1,327	374	0	0	0	9,972
Bachelor's Graduate Entry	22	15	0	429	0	1,406	4,154	198	2,164	22	0	0	0	8,341
Bachelor's Honours	1,657	131	63	11	167	403	173	506	3,296	827	0	0	0	7,101
Bachelor's Pass	28,623	12,040	7,165	5,346	5,323	51,143	40,434	80,621	88,996	28,898	56	0	0	321,478
Associate Degree	4	11	38	0	53	98	53	5	591	107	0	0	0	960
Advanced Diploma (AQF)	46	17	3	7	270	147	184	155	726	73	2	0	0	1,630
Diploma (AQF)	74	15	19	2	237	134	196	17	1,152	75	0	0	0	1,921
Other award courses	143	19	26	13	18	73	74	362	385	56	0	0	0	1,169
Enabling courses	22	5	33	0	21	12	220	0	1,165	282	0	956	0	2,716
Non-award courses	0	0	0	0	0	0	0	0	0	0	0	0	8,519	8,519
Total	35,125	16,350	9,239	6,873	7,921	67,985	61,913	110,816	120,901	35,101	58	956	8,519	454,366
Total Submission 1 2002	33,726	17,545	8,987	6,542	7,853	65,637	60,966	103,529	116,677	33,507	94	804	7,886	437,110
Total Submission 1 2001	32,137	16,435	8,671	6,101	7,750	61,964	57,090	95,344	113,034	30,176	93	987	6,536	410,593

(continued)

Table 21. All Students by Level of Course, Broad Field of Education and Gender, Submission 1 2003 (continued)

Level of Course	Natural and Physical Sciences	Information Technology	Engineering and Related Technologies	Architecture and Building	Agriculture, Environmental and Related Studies	Health	Education	Management and Commerce	Society and Culture	Creative Arts	Food, Hospitality and Personal Services	Mixed Field Programmes	Non-award courses	TOTAL (a)
	PERSONS													
Doctorate by Research	6,215	1,032	3,259	406	1,415	4,485	3,056	2,769	8,332	1,251	0	0	0	32,213
Doctorate by Coursework	5	36	0	0	2	60	106	689	562	9	0	0	0	1,469
Master's by Research	960	284	1,044	235	340	1,018	935	427	2,084	1,284	0	0	0	8,611
Master's by Coursework	1,443	10,885	4,716	1,166	1,254	6,912	8,613	50,055	14,716	2,643	0	0	0	102,368
Postgrad. Qual/Prelim.	51	37	36	39	7	185	13	27	134	64	0	0	0	593
Grad.(Post) Dip. - new area	470	2,107	566	365	457	2,423	7,499	5,969	5,271	1,151	2	0	0	26,279
Grad.(Post) Dip. - ext area	367	1,165	225	216	122	2,984	913	2,252	2,801	399	0	0	0	11,443
Graduate Certificate	456	527	976	306	299	2,513	2,815	8,464	2,067	522	7	0	0	18,952
Bachelor's Graduate Entry	64	37	4	1,124	2	2,755	5,401	388	3,615	42	0	0	0	13,310
Bachelor's Honours	2,875	585	377	28	290	530	214	1,034	4,774	1,218	0	0	0	11,620
Bachelor's Pass	52,917	51,221	46,436	13,258	10,980	68,352	52,551	148,172	132,588	44,124	67	0	0	568,684
Associate Degree	7	41	444	0	186	113	109	35	798	146	0	0	0	1,879
Advanced Diploma (AQF)	104	53	121	44	782	312	242	403	1,042	133	26	0	0	3,262
Diploma (AQF)	137	69	98	14	513	199	254	74	3,407	135	0	0	0	4,900
Other award courses	356	63	362	28	167	205	91	869	678	71	0	0	0	2,890
Enabling courses	60	22	80	0	83	15	428	0	1,824	511	0	1,423	0	4,446
Non-award courses	0	0	0	0	0	0	0	0	0	0	0	0	15,952	15,952
Total	66,487	68,164	58,744	17,229	16,899	93,061	83,240	221,627	184,693	53,703	102	1,423	15,952	828,871
TOTAL Submission 1 2002	64,255	69,974	56,034	16,482	16,954	90,012	81,738	205,960	177,665	51,160	125	1,233	14,629	795,550
TOTAL Submission 1 2001	61,630	63,257	53,866	15,730	16,905	85,290	75,756	190,624	172,569	46,010	140	1,514	12,488	747,825

(a) The data takes into account the coding of Combined Courses to two fields of education.

As a consequence, counting both fields of education for Combined Courses means that the totals may be less than the sum of all broad fields of education.

Appendix 3

Formal Education		Number of Students
Faculties (552)		1,394,656
4-year Higher School (175)		61,104
2-year Vocational School (4446)		323,971
TOTAL		1,779,731
The number of students enrolled in second education and in the Open University are included in a separate table as follows:		
Second Education	Bachelor's	155,565
	Associate's	124,208
Total for Second Education		279,773
Open University	Bachelor's	421,215
	Associate's	240,639
Total for Open University		661,854

Appendix 4

Foundation Degrees Courses and Modes of Delivery, 2001-2⁷⁴

Title	Full-Time	Part-Time	Distance Learning
Aircraft Engineering	Y	Y	N
Applied Guidance	Y	Y	N
Business	Y	Y	N
Chemical Technology	Y	Y	N
Children and Young People Learning	N	Y	N
Classroom Assistance	N	Y	N
Commercial Music	Y	N	N
Community Enterprise and Development	N	Y	N
Community Governance	N	Y	N
Computer Visualisation and Animation	Y	Y	N
Computing and Information Systems	Y	N	N
Construction	Y	Y	N
Control and Network Computing	N	Y	N
Creative Arts and Media	Y	N	N
Creative Digital Broadcast Technology	Y	Y	N
Early Years Practice	N	Y	N
E-Business	Y	Y	N
E-Commerce	Y	Y	N
E-Commerce Technologies	Y	Y	N
Engineering (Automotive Manufacturing)	N	Y	N
Equine Studies	N	Y	N
E-Systems Design and Technology	N	Y	N
Events and Facilities Management	Y	Y	N
Fashion Design Technology	Y	N	N
Film and Television Production	Y	Y	N
Finance and Law	Y	Y	N
Forensic Science	Y	Y	N
Health and Social Care	Y	Y	N
Health Care	Y	Y	N
Health Related Exercise and Fitness	Y	Y	N
Hospitality	Y	N	N
Hospitality, Leisure and Tourism	N	Y	N
Housing	N	Y	N
Information Communication Enabling Technologies	Y	Y	N
Information Communication Technology	Y	Y	N
Internet Computing	Y	N	N
IT	N	Y	N

⁷⁴

Source: <http://www.foundationdegree.org.uk/courses/listprog/>

Title	Full-Time	Part-Time	Distance Learning
Land-based Industries	Y	Y	N
Learning Support	N	Y	N
Logistics and Transport	N	Y	Y
Management (Birkbeck College)	N	Y	N
Management (University of Central England)	N	Y	N
Media and Business Applications	N	Y	N
Media Practice	Y	N	N
Medical Technicians	Y	Y	N
Multimedia Design	Y	Y	N
Music / Multimedia Technology	Y	N	N
New Media Design	Y	Y	N
Ophthalmic Dispensing	Y	Y	N
Police Studies	N	Y	Y
Pre-16 Learning and Teaching Support	N	Y	N
Professional Photography	Y	Y	N
Project Management	Y	Y	Y
Property and Construction	Y	Y	N
Public Sector Administration	Y	Y	N
Public Services Management	Y	Y	N
Retail Technology and Logistics	N	Y	N
Science	N	Y	N
Security And Risk Management	N	Y	N
Sports Science	Y	Y	N
Teaching and Learning Support	N	Y	N
Technology	Y	N	N
Textiles	N	Y	N
Tourism	Y	N	N
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