

Educational Credits in the USA and Credit Transfer from the UK and European Union

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Formation of credit units in the US, European Union (EU), and UK educational systems is described. The year credits in different countries and the US are compared. Formation of notional time for assessment of postsecondary education is discussed for the US, UK, and EU. The basis for credit transfer between these systems is explained.

Introduction

For education which becomes more standardized is important to understand the criteria for estimating a student's course work. How long is a "credit hour?" How many credit hours per quarter, semester, or year are typically assigned at different institutions? What is the length of the academic year at different schools, colleges, and universities? What are the differences between auditorium, lecture, and notional hours? All of this information is necessary often to create a "common ground" for the transfer of credits from one institution to another.

The problem of credit transfer is almost as old as the world's historical universities. In the tenth through eleventh centuries, a special Papal bull had to be issued to make the credit of a specific university transferrable to another European university "accredited by Rome." Sometimes, it took a number of years for certain universities to overcome this barrier of recognition. For example, Ferdinand III of Castile issued a chapter of privilege to the University of Salamanca on April 6, 1243. (The original text with the seal has been found in the Salamanca University Chapel on the epistle side of the wall under a glass cover, along with some nineteenth century original documents). But it wasn't until 1255 that Pope Alejandro IV issued the *Dignum arbitramur*, which said that graduates of the University of Salamanca would have to be accepted to teach in all universities, except in Paris and Bologna (a stipulation rescinded in 1333).

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In the United States, the accrediting educational institutions make the credits from the university or college acceptable to other universities in the country. The Carnegie Foundation had significant input into this standardization of education. In 1906, they proposed and promoted the standards of education through which a credit unit could represent a single subject taught for one classroom period five days a week (actually, every study day of an academic year).

US Secondary School Academic Credits

The academic year in the USA is usually divided into two eighteen-week semesters (180 instructional days for the year). Each week has five days. The average length of the general education day is 6.6–6.9 academic hours (Table 1). The average length of education during the academic year is nine months (three months being reserved for vacations).

Table 1. Length of school (academic) year and school day in the US (adapted from US DOE, 2004)

Selected characteristic	Average length of school year in days	Average length of school day in hours	
Average	180.4	6.7	
Catholic	179.0	6.7	
Other religious	178.5	6.8	
Nonsectarian	185.7	6.5	
School level			
Elementary	179.6	6.7	
Secondary	183.3	6.8	
Combined	181.2	6.7	
Program emphasis			
Regular elementary/secondary	178.9	6.8	
Montessori	183.2	6.6	
Special program emphasis	179.1	6.8	
Special education	194.4	6.1	
Alternative	184.0	6.4	
Early childhood	203.6	6.2	
Size (number of students)			
Less than 50	181.9	6.6	
50-149	180.7	6.7	
150-299	179.3	6.7	
300-499	178.9	6.8	
500-749	178.4	6.9	
750 or more	178.8	7.0	
Region			
Northeast	181.3	6.6	
Midwest	178.5	6.7	
South	180.2	6.8	
West	182.2	6.7	
Community type			
Central city	181.6	6.8	
Urban fringe/large town	180.6	6.7	
Rural/small town	178.4	6.7	

Recently, the US Department of Education (US DOE, 2008) changed the definition of "unit of credit." Now, a unit of credit is awarded for 150 *clock* hours of instruction, which is equivalent to 180 academic (50 minutes) hours. If we count one academic hour per week, it corresponds to the standard 180-days (36 weeks) academic year. Summer schools require only 120 clock hours of instruction time for a unit of credit.

The number of study hours in US schools ranges from 1,080–1,270 (Table 1), with the majority falling in the 1,188–1,224 hour range. On average, 1,200 instructional hours in 180 days are required per year.

Note that the average number of academic hours per day is actually equivalent to the number of US school credits: one hour a day per entire year of study. The average US student earns credits ranging from 6.2–6.8 in a typical year of study. This system of calculation is used for both primary and secondary education. For postsecondary education, each academic hour of class (or contact) study is amended by two additional academic hours of self-preparation.

United States Postsecondary Education Credit Units

The abovementioned system of credit-unit calculation is used for primary and secondary education. Another system is used for postsecondary education in the US. In this system, two academic hours of self-preparation are added to each academic hour of auditorium study. In other words, the unit of credit is equivalent to one academic hour of instructional (auditorium) time and two academic hours of self-preparation. This time (three hours total) is sometimes called *notional time*, and it includes all time spent by a student successfully studying a subject.

United Kingdom Credit System in Postsecondary Education

In the UK, there also exists a system by which study credits for self-preparation are added to each academic hour of auditorium (or contact) study. Within the UK, one study credit is calculated for ten notional hours of study; thus, a study module having 100 notional hours will be counted as ten study credit units. Correspondingly, the three-year Bachelor of Science degree in England requires 360 credit units (120 per year).

The UK has also established levels of credits. These eight levels of credits used in England, Wales, and Northern Ireland are presented in Table 2.

Table 2. Study levels and credit levels in England, Wales, and Northern Ireland (QAA, 2009a).

Credit level	Study level
8	doctorate
7	master's degree
6	the last part of a bachelor's degree (BA/BSc)
5	the last part of a foundation degree; the middle part of a bachelor's degree
4	the first part of higher-education study
3	an entry qualification for higher education

For example (QAA, 2009a), for a full-time, three-year bachelor's degree with honors (BA/BSc (Hons)) there is the following sequence of education. During a first year a student takes 20 credits at level 3 and 100 credits at level 4. During the second year a student takes 120 credits at level 5. During the last year a student takes 120 credits at level 6. The total number of credits required for graduation is 360. In more details credit system for the main higher education is presented in Table 3. Some institutions in the UK also use a system of accreditation of prior learning (APL). Within this system, years of practical work can be converted into college credits. For example (QAA, 2009a), two years of the work in the museum are transferred to 20 study credits valid toward a bachelor degree in arts.

Table 3. Credit values typically associated with the design of programs leading to main higher education (HE) qualifications in England (adapted from QAA, 2009b).

HE qualifications as set out in the FHEQ	FHEQ* level	Minimum credits*	Minimum credits at the level of the qualification	FQ-EHEA** cycles	ECTS credit ranges from FQ-EHEA
1	2	3	4	5	6
PhD/DPhil		Not typica	ally credit-rated		
Professional doctorates (only if credit based) (e.g., EdD, DBA, DClinPsy)**	8	540	360	Third cycle (end of cycle) qualifications	Not typically credit-rated
Research master's degrees (e.g., MPhil, MLitt)		Not typical	ly credit-rated		
Taught MPhil		360	240		
Taught master's degrees (e.g., MA, MSc, MRes)		180	150	Second cycle (end of cycle) qualifications	
Integrated master's degrees (e.g., MEng, MChem, MPhys, MPharm)	7	480	120	•	
Postgraduate diplomas		120	90		
Postgraduate Certificate in education (PGCE)		60	40		
Postgraduate certificates		60	40		

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1	2	3	4	5	6
Bachelor's degrees with honours (e.g., BA/BSc Hons)		360	90	First cycle (end of cycle)	180–240 ECTS
Bachelor's degrees		300	60	qualifications	credits
Professional Graduate Certificate in Education (PGCE)	6	60	40		
Graduate diplomas		80	80		
Graduate certificates		40	40		
Foundation Degrees (e.g., FdA, FdSc)		240	90	Short cycle	
Diplomas of Higher Education (DipHE)	5	240	90	(within or linked to the first cycle) qualifications	Approx. 120 ECTS credits
Higher National Diplomas (HND)		240	90	quarricutions	
Higher National Certificates (HNC)		150	120		
Certificates of Higher Education (Cert HE)	4	120	90		

*FHEQ—The Framework for Higher Education Qualifications (five levels: Certificate of higher education, diploma of higher education, bachelor's degree, master's degree, doctorate degree).

**FQ-EGEA—The Framework for Qualifications of the European Higher Education Area

European Credit Transfer and Accumulation System in Postsecondary Education

A typical UK bachelor's degree with 360 UK credits is equivalent to 180 ECTS (European Credit Transfer and Accumulation System) credits. Thus, one ECTS credit is equal to two UK credits. ECTS credits for postsecondary education also take into consideration both instruction time and self-preparation time, along with other academic activities (for example, examinations). A year of study comprises sixty credits, including auditorium hours and self-preparation (Europe Direct, 2009). One academic year corresponds to 60 ECTS credits equivalent to 1,500–1,800 hours of study, which corresponds to 25–30 academic hours per week (5–6 days times 5 hours per day) (Europe Direct, 2009).

As described by Rice (2007), one ECTS would represent twenty-eight hours of study. This unit is derived from the idea that one academic year at an institution of higher education in the EU comprises forty-two weeks of forty hours each (ten weeks being reserved for holidays), totaling 240 days per year.

Forty hours per week are equivalent to eight hours a day of study times a five-day study week. Thus, the total number of hours available for academic study on a full-time basis is 1,680 hours. The study load per year is 60 ECTS and 1 ECTS is 28 hours (1,680 divided by 60). Rice (2007) explains how notional time is formed in the ECTS concept. For example, suppose 6 ECTS are needed for one of the courses. These correspond to $6 \times 28 = 166$ hours of total study time with only 48 essential auditorium hours. The remaining 118 hours will be self-preparation hours.

A European Nazarene College (EuNC, 2011) provides an example. The regular courses are offered for three or five ECTS. A typical three-ECTS course comprises seventy-five to ninety student learning hours, or twenty to thirty hours of class sessions and forty-five to seventy hours of the learning activities outside of class. A 5-ECTS credits course comprises 125 to 150 student learning hours, or 30 to 40 hours of class sessions and 85 to 120 hours of learning activities outside of class.

The National Council on the Evaluation of Foreign Academic Credentials has provided the following information on the ECTS system: (1) one ECTS credit represents between twenty-four and thirty study hours; (2) ECTS credits are awarded only upon the completion of work and the assessment of that work; (3) work may be completed through a variety of methods and is not expressed solely in terms of classroom hours. Council recommendation: "One ECTS credit is comparable to one-half **semester credit** [0.75 quarter credit] at a regionally accredited postsecondary institution in the United States" (WLU, 2011). A similar recommendation is given by Watkins (2007) in material published by the American Association of College Registrars and Admission Officers (AACRAO).

These recommendations are consistent with the following simple calculations: One year of university-level study in the EU earns sixty ECTS; one year of university-level study in the US earns (on average) thirty semester units of credit (120 is needed for the bachelor's degree); thus, one ECTS corresponds to 0.5 US semester credits.

In the US, secondary school comprises 180 days with 6.6 academic hours per day, for a total of 1,200 academic hours per year. This is all made up of instructional time; no self-preparation time is calculated for secondary education.

Conversely, in postsecondary education, the notional time concept is used. If the US university student takes fifteen hours a week during a year (3 instructional hours per day in a 5-days week), multiplied by thirty-six weeks, the total instructional hours per year would be 540, and 1,620 notional hours per academic year. The number of instructional hours actually varies from 15 to 16, so in the US we have 1620-1728 notional time per year.

1,620 1,728hours of US notional time (540-576 hours of instruction time) comes to 30 US semester credits.

1,680 hours of EU notional time (480 hours of instruction time) comes to 60 ECTS credits.

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