Regulations Related to Fostering Undergraduate Student Success

I. Limiting Hours for Baccalaureate Degree Programs

Baccalaureate degree programs shall be limited to no more than 128 semester credit hours. Any requirement beyond 128 hours must be approved by the Board of Governors. Any program authorized by the Board of Governors to require 135 semester credit hours or more shall be officially designated as a five-year baccalaureate program.

A. Campuses shall observe these guidelines in all proposals for new degree programs.

B. Campuses must publicize the required number of semester credit hours and projected length of full- time enrollment required to obtain the baccalaureate degree in both printed and online catalogs, as applicable. During new student orientation sessions and in publications for students and parents, campuses must provide a description of factors that may extend the length of time to complete a degree.

II. Student Success Policies

A. Satisfactory Academic Progress and Good Academic Standing

Satisfactory Academic Progress and Good Academic Standing are determined by:

- Term Grade Point Average
- Cumulative Grade Point Average, and
- Ratio of attempted to completed semester credit hours.

The implementation of these criteria shall include the following:

1. Upon initial admission to a UNC campus, a student is in Good Academic Standing.

2. All undergraduates in the University of North Carolina system must earn and maintain a minimum cumulative GPA of 2.0 to be considered in Good Academic Standing and making Satisfactory Academic Progress.

3. All campuses must develop an academic progress policy that defines the ratio of attempted to earned semester credit hours required for continued enrollment. Federal Title IV regulations for Satisfactory Academic Progress shall be the minimum allowable standard.

4. If a student meets the criteria in each of the these standards above, then the student is considered to be making Satisfactory Academic Progress, remains in Good Academic Standing, and is eligible to continue enrollment at that UNC campus.

5. Campuses may develop policies that allow students falling below one or more of the standards to be placed on academic warning and/or academic probation[1] as opposed to being academically dismissed or academically suspended. These policies must, at a minimum, be in accord with Federal Title IV regulations and should include the use of academic success contracts where appropriate.

6. Campus policies related to this section must be published in all campus academic and financial aid materials, both printed and online. Students should be informed of these policies at new student orientation.

[1]Campuses are not obligated to enact policies for either academic probation or academic warning below the allowable standards.

B. The Course Adjustment Period (i.e., "Drop/Add")

The Course Adjustment Period will be established as the time during which students may drop or add courses without academic penalty (i.e., no impact on the Grade Point Average (GPA), attempted hours, or tuition surcharge). Campuses may choose to make the period for adding courses and the period for dropping courses the same or different; however, both the drop and add periods must be concluded by the census date.[2]

The implementation of this section shall include the following:

1. Campuses may set policies that allow faculty to drop students administratively if they do not attend the course by the end of the Course Adjustment Period.[3] These policies must be publicized to students. Faculty using this option must have a limited window to take such action in order to complete the drop without causing the student to incur financial penalties other than those normally applied during the course adjustment period. Campuses may allow faculty to add students into those seats in a timely fashion under guidelines set by the campus.

2. Campus business practices[4] determine if adjustments made during Course Adjustment Period result in any refund or additional charges to the student. Any financial repercussions to students must be publicized in campus academic and financial aid policies describing the Course Adjustment Period.

3. Federal Title IV regulations shall be the minimum standard for all policies related to student refunds during the course adjustment period.

C. Course Withdrawal[5]

Students are expected to complete all the courses for which they are registered at the close of the Course Adjustment Period. These courses must be recorded on a student's official transcript and receive a grade that is used in the calculation of a GPA, count as attempted hours, count toward the tuition surcharge calculation,[6] and conform to all financial aid and Satisfactory Academic Progress rules *unless* withdrawal is permitted under conditions described below:

1. Course withdrawal with extenuating circumstances

a. Campuses will develop policies that permit a student to withdraw from a course or courses at any time and without academic penalty for serious extenuating circumstances, including military deployment. These policies must describe a clear process that defines the documentation required, the nature of the review by a designated campus body or official, and an opportunity for one level of appeal at the campus level.

b. Any campus policy developed for course withdrawal for extenuating circumstances must require that:

i. a W be recorded on the transcript

[2]For regular term instruction, the census date is the conclusion of the 10th class day of the fall and spring semesters. For summer sessions, degree credit extension courses, and any other degree-credit courses taught on an irregular calendar, the census date is the end of the class day representing the passage of 10 percent of the instructional period. UNC Policy Manual 400.1.8[R]

[3]If the course is offered online, the instructor may administratively drop the student from the course if the student has not signed in by the end of the course adjustment period.

[4]All campus business practices must conform to UNC FIT Student Account Standards.

[5]All campus policies on withdrawal must include policies about refunds and conform to UNC FIT Financial Aid and Student Account Standards.

[6]Summer courses are excluded from the tuition surcharge as per UNC Policy Manual 1000.1.5[G]

ii. the course(s) count as attempted hours
iii. the course(s) not count in tuition surcharge calculations (see Policy Manual 1000.1.5[G])
iv. the course(s) not count in GPA calculation
v. the course(s) are subject to all financial aid and SAP rules and calculations

2. Course withdrawals without extenuating circumstances

a. After the initial Course Adjustment Period, campuses may develop policies that allow students to withdraw from one or more courses without meeting the standards for withdrawals for extenuating circumstances. These policies must specify up to four courses or up to 16 semester credit hours as the maximum number of such withdrawals permitted over the course of a student's degree or degrees.

b. Any policy developed for course withdrawal without extenuating circumstances must require that:

i. a W be recorded on the transcript
ii. the course(s) count as attempted hours
iii. the course(s) count in surcharge calculations
iv. the course(s) are subject to all financial aid and SAP rules and calculations

c. Campus policies must include a deadline for such withdrawal at a date no later than the completion of 60% of the term[7].

Students who must withdraw from a course or courses due to military service should consult the UNC Policy on Military Student Success**.**

D. Course Repeats

Campus policies on course repeats must conform, at the minimum, to Federal Title IV Financial Aid standards with regard to course repeats. Students receiving Federal financial aid cannot be treated differently from students not on such aid.

In addition, all campus policies on course repeats must, at the minimum:

- Include on the student transcript all attempts to complete a course,
- Count all attempts to complete a course in calculations of satisfactory academic progress,
- Count all attempts to complete a course in the tuition surcharge calculation in accordance with Policy Manual 1000.1.5[G], and
- Use all grades earned in a course in the calculation of the GPA, unless the grade can be excluded through a campus-based grade exclusion or replacement policy.

E. Forgiveness Policies

Campuses may establish policies that permit a student who is academically dismissed or academically suspended to be readmitted after a specified period of time, have a modified or new GPA calculation, and to be under other specific steps for re-admittance to the campus.

[7]The calculation of this date should begin with the first day of classes and conclude on the last day of regular class meetings. It should exclude the reading day and exam period.

F. Grade Exclusion or Grade Replacement

Campuses must develop policies on grade exclusion and/or grade replacement.[8] These policies must specify up to four courses or up to 16 semester hours as a maximum number of allowable exclusions/replacements.

Campus policies that permit either grade exclusion and/or grade replacement must provide for:

- the inclusion on the transcript of both the initial grade earned for the course and a notation of its exclusion from or replacement in the calculation of the GPA, and
- the inclusion of the course(s) in both the calculations of satisfactory academic progress and the tuition surcharge.

G. Minimum, Maximum, and Average Semester Course Load

A minimum "full-time" undergraduate course load is defined as 12 credit hours per semester. In advising and other communications, campuses shall encourage full-time students to consider an average semester load of 15 credit hours, when possible, to stay on track for a timely graduation. Campuses may allow students in good academic standing to enroll in up to 18 semester hours in a fall or spring semester without any special permission. No student shall exceed 18 semester hours in a fall or spring semester without special permission as designated by campus policy. Campuses shall develop appropriate policies for a maximum load in summer terms.

III. Student Success Review and Reporting

Campuses will establish a student success support structure of one or more committees comprised of the appropriate officials from areas such as admissions, registrar's office, financial aid, advising, the counseling center, the cashier's office, faculty governance, and student government to review and issue regular reports on:

A. Retention and Graduation

Each campus shall, in consultation with General Administration, establish goals for retention[9] and graduation[10] for first-time, full-time students. Campuses shall also work with General Administration to develop a tracking model for the retention and graduation rates of full-time students, transfer students, and part-time students.

General Administration will report annually on the success of these various categories at both the campus and system level.

B. Additional Student Success Measures

Campuses shall work with the General Administration to develop common output measures of student success and achievement as a means to assess the academic progress goals set by each campus.

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[8]The development of a policy does not imply that a campus must allow grade replacement and/or exclusion. A policy may simply state that the campus does not allow such.

[9]For purposes of reporting on first-time, full-time students, retention rate shall be defined as "the percentage of first-time degree-seeking undergraduates from the previous fall who are again enrolled in the current fall." (http://nces.ed.gov/ipeds/glossary/)

[10]For purposes of reporting, graduation rate data shall be collected as defined by "the number of students entering the institution as full-time, first-time undergraduate students in a particular year (cohort), completing their program within 150 percent of normal time to completion. It shall be calculated by race/ethnicity and gender." (http://nces.ed.gov/ipeds/glossary/)

C. Review of Course Scheduling and Offerings

Campuses shall develop mechanisms to monitor whether all courses necessary for graduation are offered on a timely basis and with an adequate number of sections for a student to graduate in four years.

As a part of this review, campuses shall determine:

- If general education requirements (e.g., themes, designators, etc.) allow appropriate student progress,
- If excessive or unnecessary specification or augmentation of general education courses for certain majors places an undue burden on students changing majors, and
- If excessive GPA or course grade requirements for admission to or completion of a major are delaying student progress toward graduation.

These evaluations will be prepared on a three-year cycle beginning in Fall 2014 and will examine data from the previous three academic years. General Administration will consult with campuses to develop the reporting format and required data.

D. Advising

Campuses shall develop policies to monitor the availability of appropriate and timely academic advising, particularly for first-time undergraduates and first-semester transfer students to:

- assist students in making effective academic and career decisions
- increase the potential for students selecting appropriate courses and schedules
- provide students with assistance in selecting a major in a timely fashion
- prevent excessive changes of major
- increase students' awareness of an appropriate course load and academic assistance available to them.
- Provide information as appropriate on course selection and the impact on tuition surcharge.

This review should take place on a three-year cycle beginning in Fall 2014 and examine data from the previous three academic years. General Administration will consult with campuses to develop the reporting format and required data.

E. Early Warning System Plan

Effective in the Fall 2014 semester, each campus will have an early warning system (EWS) to alert campus personnel to signs of poor academic performance by a student or of behavior likely to lead to a student's poor academic performance. Each campus will submit a comprehensive intervention plan to General Administration that describes how students are identified by the EWS, what campus staff or faculty are notified when a student is identified by the EWS, and how the staff or faculty member is to respond. Interventions may include written communication with students, phone calls or text messages, face-to-face meetings with campus personnel, and/or formal programs involving extended student participation.

The plan should specify what interventions will be used, who will be responsible for them, how warnings will be communicated to responsible personnel, and how interventions will be tracked and reported.

Each campus will identify strategies to assess the effectiveness of its EWS and use the results for ongoing improvement.

IV. Regulations on Student Financial Aid and Title IV

All campuses will develop financial aid disclosure practices that will, at the minimum, include entrance and exit counseling for students receiving financial aid.[11]

All campus policies will be compliant with Federal Title IV Regulations, including, but not limited to, the following:

A. Common definition of the Federal Title IV regulation that defines a student as eligible for Federal financial aid for up to 150% of normal time to graduation.

Four-year degree requirements in the University of North Carolina system range from 120-128 semester credit hours. The system will use 120 hours as the common definition for defining federal financial aid eligibility, making 180 hours the limit for 150% of normal time to graduation.

Campuses will define procedures whereby a student completing 180 or more attempted hours will undergo an automatic review to determine continued federal financial aid eligibility. If the student is enrolled in a program requiring more than 120 hours, the appropriate allowance will be calculated on campus based on the exact number of credits required for that degree.

These policies must be widely distributed in all campus academic and financial aid materials.

B. Guidelines to monitor first undergraduate degree completion

Federal Title IV regulations require that campuses monitor first undergraduate degree completion and offer no additional federal grant aid (e.g. Pell, SEOG) after a student earns the initial undergraduate degree. Under federal rules, a student can take out federal loans for a second degree, if eligible. To ensure compliance, campuses must develop protocols for:

- monitoring student degree completion each term (fall, spring, summer), and
- for advising students of their status and eligibility for federal financial aid

These policies must be widely distributed in all campus academic and financial aid materials.

V. Compliance with the Comprehensive Articulation Agreement (CAA) with the North Carolina Community College System (NCCCS) and Transfer within the UNC System

Campuses will be fully compliant with the Comprehensive Articulation Agreement with the NCCCS.

Campuses shall develop policies that provide a student at any UNC campus who has successfully completed[12] the lower institution-wide division's general education requirements to be considered if applying as a transfer student to have completed the general education requirements at another UNC campus.

Any change by a campus in its General Education requirements must be consistent with the CAA.

[11]All campus policies on disclosure practices must conform to UNC FIT Financial Aid and Student Account standards.

[12]To be eligible for inclusion in this policy, a student must have an overall GPA of at least 2.0 on a 4.0 scale at the time of transfer and a grade of "C" or better in all core courses.

VI. Information Distribution

To ensure that students receive policy information that is both comprehensive and timely, campuses must develop broad-based communications plans that inform students about:

- Recommended course loads, required numbers of earned hours, and the projected length of full- time enrollment needed to obtain the baccalaureate degrees;
- Factors that may extend the length of time to complete a degree;
- Requirements for Good Academic Standing and Satisfactory Academic Progress; and
- The course adjustment period,
- Tuition surcharge, and
- Other policies on course withdrawal, course repeat, and grade replacement or exclusion and their potential financial consequences.

All policies and procedures listed in this regulation will be effective no later than the Fall Semester, 2014.

Southern Association of Colleges and Schools Commission on Colleges Core Requirement 2.7.1 (Program Length)

Excerpted from page 19 of *The Principles of Accreditation: Foundations for Quality Enhancement* (2012 Edition), the accrediting standards of the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

For the full text of SACSCOC accrediting standards, see http://www.sacscoc.org/pdf/2012PrinciplesOfAcreditation.pdf

2.7.1 The institution offers one or more degree programs based on at least 60 semester credit hours or the equivalent at the associate level; at least 120 semester credit hours or the equivalent at the baccalaureate level; or at least 30 semester credit hours or the equivalent at the post-baccalaureate, graduate, or professional level. If an institution uses a unit other than semester credit hours, it provides an explanation for the equivalency. The institution also provides a justification for all degrees that include fewer than the required number of semester credit hours or its equivalent unit. (**Program length**)

KNOW THIS.

Essential Steps *for* States
ACT NOW. AT SCALE.

Program Requirements for Associate's and Bachelor's Degrees: A National Survey

By Nate Johnson, Leonard Reidy, Mike Droll, and R.E. LeMon
Commissioned by HCM Strategists, LLC, for Complete College America

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COMPLETE COLLEGE AMERICA

Established in 2009, Complete College America is a national nonprofit with a single mission: to work with states to significantly increase the number of Americans with quality career certificates or college degrees and to close attainment gaps for traditionally underrepresented populations.

JULY 2012

Program Requirements for Associate's and Bachelor's Degrees

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EXECUTIVE SUMMARY

Students take longer than necessary to complete their degrees for many reasons: academic failure or withdrawals, changes of major, voluntary additional coursetaking, and transfer problems are among the most significant causes. (See related report, *Wasting Time: Costs, Consequences and Causes of Excess Credits and Time to Degree,* July 2012.) Among the factors that determine how long students take to finish a degree, however, the one most directly under the control of institutions and policymakers is the number of credit hours required to complete a given program.

To learn the extent to which program requirements are responsible for extended time-to-degree, Complete College America engaged HCM Strategists, LLC, to conduct a survey of 189 different degree programs at 310 institutions. The results allow comparisons of program length requirements for bachelor's and associate's degrees across the country. The complete results of the survey are included in this report and accompanying tables. Major findings include:

- Most four-year public institutions now require 120 credit hours for most of their degree programs. This is a notable improvement since 1995, when a similar survey was undertaken by the Florida Board of Regents.
- A significant minority of four-year institutions still require more than 120 credit hours in programs in which the norm is 120. In fields such as English literature, psychology, and history, 10% of institutions required 125 credit hours or more.
- In some fields, the norm for bachelor's degrees remains above 120. Engineering, education, computer science, and fine arts account for many of those programs.
- Even in those fields, many well-regarded institutions are still able to offer 120-credit-hour degrees.
- Community college requirements for associate's degrees vary even more, although there is no previous survey available to establish a trend.
- Typical general-studies associate's degrees (usually Associate in Arts degrees designed specifically for transfer) require 60 credits, although many require more.
- Career-oriented or program-specific associate's degrees usually require more than 60 credits, with wide variations among institutions.
- At least some institutions manage to offer 60-credit associate's degrees in almost every field, even when the national norm is higher.

Policy implications and recommendations

To continue the improvement higher education has seen with bachelor's degree requirements, and to extend the reforms to two-year colleges, state and institutional leaders need to work together. The progress to date is proof that it can be done.

As part of the continued reform effort:

- States and institutions should ensure that they are at the norms for their programs. For example, a bachelor's in history or psychology should be 120 hours. This report can be cited to identify norms for the most-frequently offered programs.
- Education leaders should work with accrediting organizations and state licensing bodies to reduce the number of programs that require more than 120 credit hours for bachelor's degrees and 60 for associate's degrees.
- Community colleges should reduce the number of institutions and associate's degree programs that require more than 60 credits.
- States should use the positive news from this report — that policy change is possible and has taken place at many well-respected institutions — to help push those institutions that remain outside the norms to make necessary changes.
- Higher education leaders should recognize that program requirements are only a small part of the excess time and credit problem. States also should focus on failed or withdrawn courses, imperfect transfer of credits, changes in major, and voluntary additional transcript credits, which are among the other sources of extended time and credit hours.

INTRODUCTION

This report presents the findings of a national study commissioned by Complete College America to determine nationwide credit hour norms for baccalaureate and associate's degrees. HCM Strategists, LLC, conducted the research on behalf of Complete College America. The study includes all of the most common degree programs nationally. Any program in which at least 100 four-year or two-year colleges awarded degrees in 2008–09 is included, which amounts to 104 different associate's degree programs and 85 bachelor's degree programs.

The bachelor's degree component of the study includes a follow-up to *Hours to Graduation: A National Survey of Credit Hours Required for Baccalaureate Degrees*, which was conducted by the Florida Board of Regents of the State University System of Florida in 1995 (Pitter, LeMon, and Lanham 1996). The Board of Regents attempted to identify average nationwide credit hour requirements. Their research highlighted an upward creep in credit hour requirements in most programs at the time. The State University System used the results of the study to reduce 506 of the 614 bachelor's programs available throughout the university system at that time to 120 hours, with a few exceptions in engineering, visual and performing arts, and some of the health professions. The results of the present study will be compared with those of the previous study.

The comparison has three goals: show where progress remains to be made; show how time-to completion issues might be articulated in terms of curriculum credit hours; and recommend policy changes that may be required to bring them under control.

Methodology

The first phase of the study consisted of a short online survey to determine who collected program length data at the system/state-level nationwide. Only two states, Florida and Texas, had program-length data for their institutions in a transparent format. A few others had partial, out-of-date or relatively inaccessible data, but the vast majority of states did not collect this type of information. The survey was deployed online using Survey Monkey as well as via email. We also tried to identify the nature of any additional information states/systems might gather; whether it could be accessed by members of the public; and finally, whether program lengths were restricted by statute, administrative rule, some other authority, or at the discretion of the individual institution.

The second phase attempted to survey a representative sample of institutions in all states except Texas and Florida (where we used data from the state-level database). Those institutions were chosen to represent community colleges and bachelor's-granting schools in the 50 states. As such, we chose to focus initially on the top five two-year and four-year institutions by number of degrees conferred. We generated a survey template for each of the institution categories and sent it by email and postal mail to the institutional research directors (or the closest position we could identify) at the 500 selected institutions. We followed up with a second round of emails and with emails to additional institutions to increase the total number of respondents. In the final stage, we researched online catalogs for a small number of institutions to ensure that all states were

represented, that large states had multiple institutions included, and that as many as possible of the respondents to the 1995 survey were included in our sample.

We used the national standard Classification of Instructional Programs (CIP) codes to standardize the programs surveyed. This system includes both general categories (e.g., 14-Engineering), which are each assigned a two-digit number, and specific programs (e.g., 14.1901). The template for the two-year institutions contained 104 programs and their associated specific CIP codes and titles. The template for the four-year institutions contained 85 programs and their associated six-digit CIP codes and CIP titles. The survey dissemination and research for the second phase was conducted in September and October 2011. In total, we attempted to contact 936 institutions and eventually included data for 310, including 71 out of the 75 institutions that participated in the 1995 survey. The complete list of institutions with data included in the survey is provided in Appendix 1.

The goal of the study was to identify the norms for credit hour requirements in the various programs typically offered at public institutions of higher education. As such, the second phase survey focused on the minimum hours required by the curriculum, rather than the number of hours attempted by the student in the process of pursuing a degree.

Analysis

The survey report included in the Appendix provides detailed information about 104 programs (six-digit CIP codes) representing the most widely offered associate's degree programs and 85 representing the most widely offered bachelor's degree programs. The 1995 Florida Board of Regents study provided an analysis of low-, moderate-, and high-credit-hour requirements at the level of broad program categories (two-digit CIP code level), with an appendix showing results at the specific program level. Thirty program categories (two-digit CIP code level) were represented by observations for varying numbers of programs (six-digit CIP code level), ranging from one program for "precision production" (formerly "production trades") to as many as 40 programs for education.

By contrast, the present study departs from a selection of the most widely offered programs nationwide. This choice favors performing the analysis at the six-digit level because many program categories are represented by as few as one program in the survey instrument, while others are represented by as many as 17 programs.

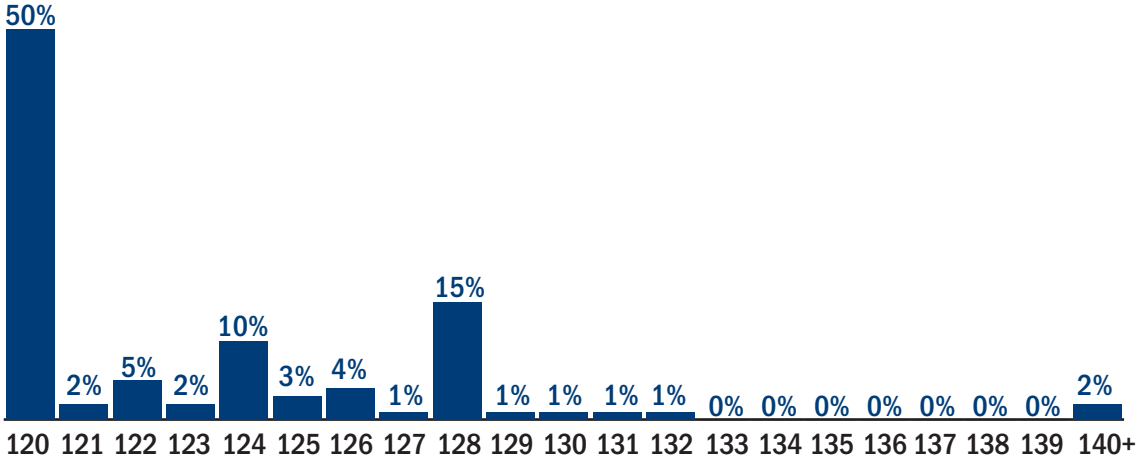
The following sections describe the results by grouping programs into low-, middle-, and high-credit-hour requirements for both bachelor's and associate's degrees. The last section analyzes the changes that have taken place since 1995 in bachelor's degree program requirements.

BACCALAUREATE OR FOUR-YEAR INSTITUTIONS

General findings

Bachelor's degree requirements at most institutions for most programs are limited to the basic 120 hours. Nearly 50% of all programs at all institutions require only the minimum number of credits generally required for accreditation. Additional clusters require 124 and 128 credits, which reflect both higher requirements in some programs, and higher overall requirements at many institutions.

Bachelor's Degree Credit-Hour Program Requirements



Low-credit-hour bachelor's programs

The median number of credit hours for 59 out of 85 programs is 120, which is the minimum established by regional accrediting agencies for any bachelor's degree. These programs are listed below, with full details in Appendix 2. They include most programs in humanities (English, philosophy), social sciences (economics, psychology), and natural sciences (physics, biology).

However, a significant minority of institutions require more than 120 hours for the same programs. Many institutions require 128 credits for programs in which the national norm is 120, and some required considerably more than that.

- Animal Sciences
- Environmental Studies
- Environmental Science
- African-American/ Black Studies
- Women's Studies
- Speech Communication and Rhetoric

- Mass Communication/Media Studies
- Journalism
- Foreign Languages and Literatures
- Linguistics
- German Language and Literature
- French Language and Literature
- Spanish Language and Literature
- Classics and Classical Languages, Literatures, and Linguistics
- Family and Consumer Sciences/Human Sciences
- Human Development and Family Studies
- English Language and Literature
- Liberal Arts and Sciences/Liberal Studies
- General Studies
- Humanities/Humanistic Studies
- Biology/Biological Sciences
- Biochemistry
- Mathematics
- Multi-/Interdisciplinary Studies, Other
- Parks, Recreation and Leisure Studies
- Health and Physical Education/Fitness
- Sport and Fitness Administration/Management
- Kinesiology and Exercise Science
- Philosophy
- Religion/Religious Studies
- Chemistry
- Geology/Earth Science
- Physics
- Psychology
- Criminal Justice/Safety Studies
- Public Administration
- Social Work
- Social Sciences
- Anthropology
- Economics
- Geography
- International Relations and Affairs
- Political Science and Government
- Sociology
- Dance
- Drama and Dramatics/Theatre Arts
- Art/Art Studies
- Fine/Studio Arts
- Art History, Criticism and Conservation
- Music
- Business/Commerce
- Business Administration and Management
- Accounting
- Finance
- Human Resources Management/Personnel Admin General
- International Business/Trade/Commerce
- Management Information Systems
- Marketing/Marketing Management
- History

Middle-credit-hour bachelor's programs

For another 20 programs, the median credit hour requirement is greater than 120 but less than 128. Many education degrees fall into this group, with great variation among the institutions that offer them. Some of this likely relates to state regulations on teacher education programs. Since many states and institutions do not have extended course requirements for these degrees, leaders in states that do should consider whether the additional requirements are really necessary, especially if states grant reciprocal licensure for teachers from states where credit requirements are lower. Many institutions offering these programs require more than 130 credit hours, although substantial numbers of institutions offered the same programs at 120 credit hours.

Simple legislative or regulatory changes related to teacher education and certification in states with high-credit-hour requirements could bring the averages in these areas down closer to 120.

- Health Teacher Education
- Information Science/Studies
- Athletic Training/Trainer
- Computer and Information Sciences
- Computer Science
- English/Language Arts Teacher Education
- Mathematics Teacher Education
- Spanish Language Teacher Education
- Special Education and Teaching
- Music Performance
- Elementary Education and Teaching
- Junior High/Interm/Mid School Education and Teaching
- Secondary Education and Teaching
- Early Childhood Education and Teaching
- Physical Education Teaching and Coaching
- Science Teacher Education/Gen Science Teacher Education
- Social Studies Teacher Education
- Clinical Laboratory Science/Medical Technology/Technologist
- Registered Nursing/Registered Nurse
- Art Teacher Education.

High-credit-hour bachelor's programs

Five of the 85 surveyed programs have median credit hour requirements of 128, all in engineering. While the norm for these programs is much higher, a significant minority of colleges keep even these programs close to the 120-credit standard. Arizona State University, the University of Georgia, and the University of California-Davis are among those with engineering programs requiring just 120 hours, and Georgia Tech, one of the most prestigious public engineering programs in the country, requires just 124.

Accreditation is sometimes cited as a justification for longer program lengths in engineering, but there is no 128-hour requirement in the guidelines of the engineering accrediting body (ABET), and the existence of well-respected programs with requirements below that level demonstrates the possibility of limiting the requirements without necessarily sacrificing rigor (ABET 2010).

- Civil Engineering
- Computer Engineering
- Electrical and Electronics Engineering
- Mechanical Engineering
- Chemical Engineering

Full details, including minimums, maximums, medians, and the top 10% highest-credit-requirement programs, are listed in Appendix 2.

What accounts for variation in requirements for bachelor's degrees?

Students generally pay for higher education by the credit hour, and funding formulas to allocate taxpayer dollars often do so as well. Yet a 136-credit engineering degree is 13% more expensive than a 120-credit degree — even when tuition rates are equal. If the additional requirements mean that students have to spend an extra semester — or two — to complete their degrees, then students are losing thousands of dollars in income from being out of the labor market.

So why do some institutions require more hours than others? A comparison of two chemical engineering programs may help illustrate the differences. Both programs are at large, regionally accredited universities, and both are specifically accredited by ABET; yet one requires 120 credit hours to graduate while the other requires 136.

University 1/Chemical Engineering

First Year, Fall Semester	Credits
ENG 100 or ENG 101 College Writing I	3
MTH 181 Calculus I	4
CHM 261 General Chemistry I	4
CHM 266 General Chemistry Lab I	1
ESC 120 Introduction to Engineering Design	2
ESC 100 New Student Orientation *	1
Total	15

First Year, Spring Semester	
ENG 102 College Writing II or ESC 102 Technical Writing and Professional Communication	3
MTH 182 Calculus II	4
PHY 241 University Physics I	5
CHM 262 General Chemistry II	4
CHM 267 General Chemistry Lab II	1
CSC 121 Career Orientation **	1
Total	18

Second Year, Fall Semester	
PHY 242 University Physics II	5
ESC 151 C Programming or ESC 152 MATLAB Programming	3
ESC 250 Differential Equations for Engineers	3
ESC 321 Thermodynamics I	3
General Education Elective	3
Total	17

Second Year, Spring Semester	
CHE 300 Chemical Engineering Principles	4
ESC 301 Fluid Mechanics	3
ESC 350 Linear Algebra and Numerical Methods in Engineering	3
ESC 315 Electrical Engineering Concepts or ESC 201 Statics	3
MTH 283 or MTH 281 Multivariable Calculus for Engineers	4
Total	17

Third Year, Fall Semester	
CHE 302 Chemical Engineering Thermodynamics	4
CHE 306 Transport Phenomena	4
ESC 270 Materials Science	3
CHM 331 Organic Chemistry I	4
CHM 336 Organic/Adv. Chem. Lab I	2
CHE 308 Junior Laboratory (Writing)	1
Total	18

Third Year, Spring Semester	
CHE 404 Introduction to Reactor Design	4
CHE 408 Separation Processes	4
ESC 282 Engineering Economy	3
CHM 322 Physical Chemistry II	4
PHL 215 Engineering Ethics (Writing)	3
Total	18

Fourth Year, Fall Semester	
CHE 440 Process Design I	3
CHE 430 Process Control (Writing)	4
CHE 4xx Senior Chemical and Biomedical Engineering Technical Elective I	3
Advanced Science Elective	4
General Education Elective	3
Total	17

Fourth Year, Spring Semester	
CHE 441 Process Design II	3
CHE 4xx Senior Chemical and Biomedical Engineering Technical Elective II	3
CHE 420 Chemical Engineering Laboratory (Writing)	4
General Education Elective	3
General Education Elective	3
Total	16

Grand Total	136

* *Need explanation for single asterisk.*
** *Need explanation for double asterisk.*

University 2/Chemical Engineering

Term 1	Credits
CHE 100: Introduction to Chemical Engineering	2
CHM 113: General Chemistry I (SQ)	4
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: English for Foreign Students	3
MAT 265 Calculus for Engineers I (MA)	3
New Student Orientation	1
Humanities, Fine Arts and Design (HU) AND Cultural Diversity in the U.S.(C) OR Humanities, Fine Arts and Design (HU) AND Global Awareness (G) OR Humanities, Fine Arts and Design (HU) AND Historical Awareness (H)	3
Total	16

Term 2	
CHM 116: General Chemistry II (SQ)	4
ENG 101 or ENG 102:First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: English for Foreign Students	3
MAT 266: Calculus for Engineers II (MA)	3
PHY 121: University Physics I: Mechanics (SQ)	3
PHY 122: University Physics Laboratory I (SQ)	1
Total	14

Term 3	
CHE 211: Introduction to Chemical Processing	3
Bioscience Elective	3
MAT 242: Elementary Linear Algebra	2
MAT 275: Modern Differential Equations (MA)	3
Humanities, Fine Arts and Design (HU) AND Cultural Diversity in the U.S.(C) OR Humanities, Fine Arts and Design (HU) AND Global Awareness (G) OR Humanities, Fine Arts and Design (HU) AND Historical Awareness (H)	3
Total	14

Term 4	
CHE 231: Introduction to Transport Phenomena I: Fluids	3
MAT 267: Calculus for Engineers III (MA)	3
MAE 384: Numerical Methods for Engineers (CS)	3
PHY 131: University Physics II: Electricity and Magnetism (SQ)	3
Social and Behavioral Sciences (SB) AND Cultural Diversity in the U.S.(C) OR Social and Behavioral Sciences (SB) AND Global Awareness (G) OR Social and Behavioral Sciences (SB) AND Historical Awareness (H)	3
Total	15

Term 5	
CHE 334: Introduction to Transport Phenomena II: Heat and Mass	3
CHE 342: Introduction to Applied Chemical Thermodynamics	3
CHM 233: General Organic Chemistry I	3
CHM 237: General Organic Chemistry Laboratory I	1
2** Level Engineering Elective	3
Upper Division Chemistry Content Technical Elective	3
Total	16

Term 6	
CHE 352: Transport Laboratories (L)	3
CHE 433: Modern Separations	3
CHE 442: Introduction to Chemical Reactor Design	3
CHM 234: General Organic Chemistry II	3
IEE 220: Business/Industrial Engr	3
Total	15

Term 7	
CHE 432: Principles of Chemical Engineering Design	3
CHE 451: Chemical Engineering Laboratory	3
CHE 461: Process Dynamic Control (CS)	3
Social and Behavioral Sciences (SB) AND Cultural Diversity in the U.S.(C) OR Social and Behavioral Sciences (SB) AND Global Awareness (G) OR Social and Behavioral Sciences (SB) AND Historical Awareness (H)	3
Upper Division Chemistry Content Technical Elective	3
Total	15

Term 8	
Complete 2 courses: CHE 4** Elective	6
CHE 462: Process Design (L)	3
Upper Division Humanities, Fine Arts and Design (HU) OR Upper Division Social and Behavioral Sciences(SB)	3
Upper Division Natural Science or MSE Technical Elective	3
Total	15

Grand Total	120

Both of these programs require generally similar courses in science and engineering, most of which are specified in ABET's accreditation requirements. The two key differences seem to be that:

- some individual courses carry more credit hours at University 1 than at University 2. College physics, for example, is five credit hours at one and three at the other.
- University 1 requires more general education and writing courses than University 2.

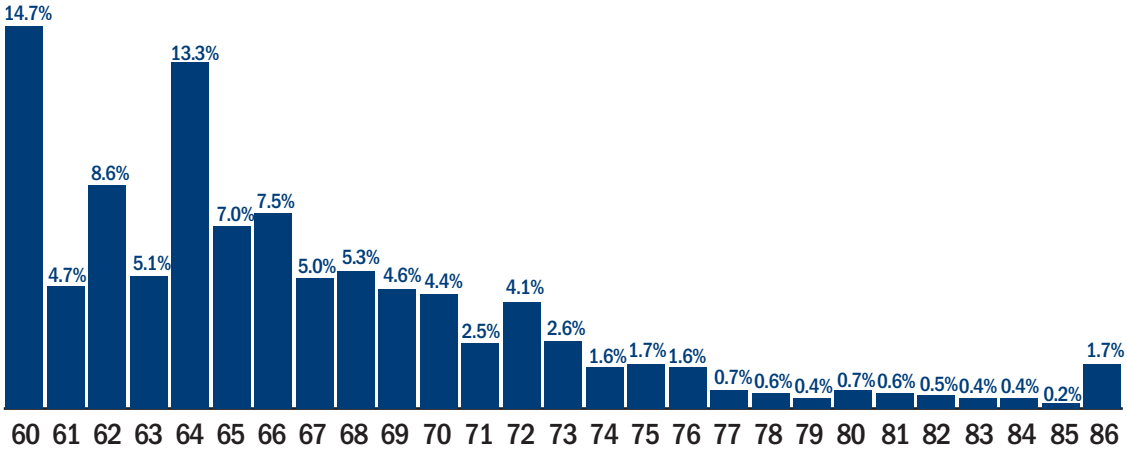
Individual institutions and programs may have good reasons for their requirements, but it is worth reflecting how other respected programs structure their curricula and whether the increased credit requirements provide a return to the students that is worth the additional cost and risk involved.

ASSOCIATE OR TWO-YEAR INSTITUTIONS

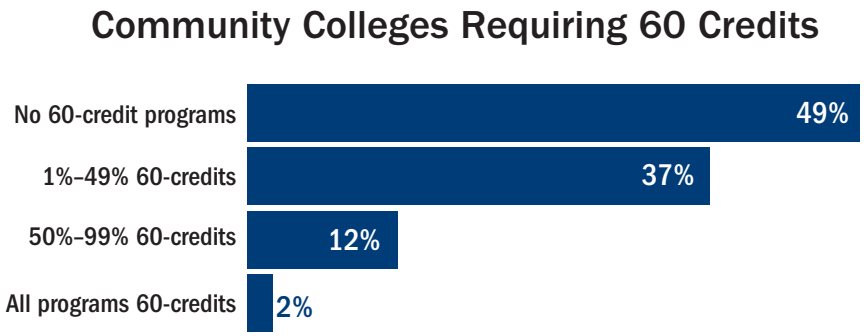
General findings

While 120 credits has become the norm for bachelor's degrees in most fields and at most institutions, the same is not true of the nominally 60-credit associate's degree. While 69% of bachelor's degree programs have median requirements of 120 credits, not a single one of the 104 associate's degree programs have a median requirement of 60. This is surprising, given that the associate's degree in many cases is intended to represent the first half of a bachelor's degree. Even if four-year colleges have established a 120-hour requirement, transfer students who arrive with more than half of that may well end up with credits they don't need.

Associate's Degree Credit-Hour Program Requirements



Requirements among community colleges vary much more than among four-year institutions. In 97 of the 104 programs included, at least one community college requires only 60 credits for the associate's degree, while many require 70 or more hours. Sixty is the most frequently found requirement (the "mode"), although most institutions' requirements are higher. About 14% require 64. While the survey did not include enough institutions in each state to provide a complete state-by-state comparison, it appears that California, Colorado, Oklahoma, and Tennessee are among the states with the most programs requiring just 60 hours, and all had at least three respondents in the survey. In some cases, however, comparisons are challenging because some associate's programs — in fields such as nursing, for example — assume certain prerequisites before students even start, while others will include those in their credit hour totals. Such a lack of transparency and consistency makes it difficult for students to easily compare time and costs.



Background

The different missions and governance structures for community colleges help to explain some of the variation in their degree program requirements. They are more likely to be governed locally, often with elected boards and taxing authority for their districts, than are four-year colleges, which typically operate as part of statewide systems. In states with strong transfer policies, community colleges tend to emphasize transfer degrees — usually the Associate in Arts (AA) — while in other places they focus more on technical Associate in Science (AS) or Associate in Applied Science (AAS) degrees. Those degree programs can include everything from nursing to web design to golf course maintenance. Some are relatively common, while others may have been tailored for a particular industry or even a single large local employer. The AS and AAS degrees usually have fewer general education requirements and more discipline- or skill-specific content than AA degrees, which aim to provide the foundation for later specialization at a four-year institution. AS and AAS have traditionally been considered "terminal" degrees, although some states and institutions have developed transfer agreements that allow for full or partial transfer of credit.

Because of the lower level of standardization of associate's degrees around the country, there is considerably more variation in credit requirements, especially for the vocationally oriented AS and AAS degrees. This survey may help establish benchmarks and peer norms for some of those programs. It does not distinguish between AS and AAS degrees, since the label used is based primarily on state or local policy, rather than a national standard definition.

Credit requirements for general education/transfer degrees

Most AA transfer degrees are reported in variations of the "general studies" category (CIP code 24.0102). Of the 209 programs reported as general studies, the most frequent requirement is 60 credits. Still, only 41% of all programs require the basic 60 credits to graduate, while 25% require 61–63 credits, and 34% require 64 or more. For states and institutions where more than 60 credits are required for a general associate's transfer degree, reducing those requirements to 60 would be a relatively easy way to make it easier for students to complete degrees on time, as most well-respected community colleges around the country have already done.

Low-credit-hour associate's programs (median = 60 hours)

There are no programs in which the median was 60 hours.

Middle-credit-hour associate's programs (median = 61–63 hours)

Associate's degrees with median requirements of 61–63 credit hours cluster in liberal arts and sciences, education, child care, and business fields. They include the following:

- Information Technology
- Education
- Elementary Education and Teaching
- Industrial Technology/Technician
- Child Development
- Child Care Provider/Assistant
- English Language and Literature
- Liberal Arts and Sciences/Liberal Studies
- General Studies
- Humanities/Humanistic Studies
- Liberal Arts and Sciences Studies and Humanities, Other
- Mathematics
- Biological and Physical Sciences
- Physical Sciences
- Fire Prevention and Safety Technology/Technician
- Sociology
- Business/Commerce
- Management Information Systems
- Real Estate
- Sales, Distribution, and Marketing Operations

High-credit-hour associate's programs (median = 64–66 hours)

While only engineering bachelor's programs typically require 128 credits or more, most associate's programs (56) in our survey require 64–66 credit hours. There is no consistent pattern in the programs represented, which include everything from electrician to accounting to history. For 54 of the 56 programs, at least one community college requires only 60 credit hours, showing what is possible.

- Applied Horticulture/Horticulture Operations
- Journalism
- Computer and Information Sciences
- Computer Programming/Programmer
- Computer Programming, Specific Applications
- Data Processing and Data Processing Technology/Technician
- Information Science/Studies
- Computer Science
- Web Page, Digital/Multimedia and Information Resources Design
- Computer Systems Networking and Telecommunications
- Early Childhood Education and Teaching
- Teacher Assistant/Aide

- Engineering
- Manufacturing Engineering Technology / Technician
- Computer Technology / Computer Systems Technology
- Drafting and Design Technology / Technician
- Architectural Drafting and Architectural Cad / Cadd
- Mechanical Drafting and Mechanical Drafting CAD / CADD
- Child Care and Support Services Management
- Legal Assistant / Paralegal
- Biology / Biological Sciences
- Multi- / Interdisciplinary Studies, Other
- Health and Physical Education / Fitness
- Chemistry
- Psychology
- Corrections
- Criminal Justice / Law Enforcement Administration
- Criminal Justice / Safety Studies
- Criminal Justice / Police Science
- Fire Science / Fire-Fighting
- Human Services
- Social Work
- Social Sciences
- Carpentry / Carpenter
- Electrician
- Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology / Technician
- Industrial Mechanics and Maintenance Technology
- Welding Technology / Welder
- Commercial and Advertising Art
- Graphic Design
- Drama and Dramatics / Theatre Arts
- Art / Art Studies
- Music
- Medical / Clinical Assistant
- Substance Abuse / Addiction Counseling
- Business Administration and Management
- Office Management and Supervision
- Accounting
- Accounting Technology / Technician and Bookkeeping
- Administrative Assistant and Secretarial Science
- Executive Assistant / Executive Secretary
- Business / Office Automation / Technology / Data Entry
- Hospitality Administration / Management
- Hotel / Motel Administration / Management
- Marketing / Marketing Management
- History

Very-high-credit-hour associate's programs (median = 67+ hours)

Since associate's programs have a wider range of credit requirements than bachelor's degrees, it is worth creating a different category for the programs with the very highest median requirements.

These programs include many in health professions and technical fields. In both the "high" and "very high" categories of associate's degrees, state licensure requirements may account for some of the differences from the lower-credit programs, and for the differences among institutions and states. Yet, again, there are examples in almost all cases of institutions offering the programs at 60 credit hours.

The existence of programs where requirements are considerably lower puts a burden on those with higher requirements to justify the difference, especially where states grant reciprocal licensure for practitioners from states where the requirements are lower. In many cases, there also are wide differences within states, suggesting that institutional practice rather than state standards is responsible for the number of hours required.

Programs in which the median requirements are very high — 67 credit hours or above — include:

- Cosmetology / Cosmetologist
- Culinary Arts / Chef Training
- Architectural Engineering Technology / Technician
- Civil Engineering Technology / Technician
- Electrical, Electronic and Communications Engineering Technology / Technician
- Mechanical Engineering / Mechanical Technology / Technician
- Legal Administrative Assistant / Secretary
- Electrical / Electronics Equipment Installation and Repair
- Auto body / Collision and Repair Technology / Technician
- Automobile / Automotive Mechanics Technology / Technician
- Diesel Mechanics Technology / Technician
- Machine Tool Technology / Machinist
- Interior Design
- Dental Hygiene / Hygienist
- Health Information / Medical Records Technology / Technician
- Medical Administrative / Executive Assistant and Medical Secretary
- Occupational Therapist Assistant
- Physical Therapy Technician / Assistant
- Veterinary / Animal Health Technology / Technician and Veterinary Assistant
- Emergency Medical Technology / Technician (Emt Paramedic)
- Medical Radiologic Technology / Science — Radiation Therapist

- Respiratory Care Therapy / Therapist
- Surgical Technology / Technologist
- Diagnostic Medical Sonography / Sonographer and Ultrasound Technician
- Radiologic Technology / Science — Radiographer
- Clinical / Medical Laboratory Technician
- Registered Nursing / Registered Nurse
- Licensed Practical / Vocational Nurse Training

What accounts for variation in requirements for associate's degrees?

Many of the same causes for variation in bachelor's degree requirements also apply to associate's degrees. Yet community colleges tend to be less tightly organized and regulated at the state level and have evolved degree programs based on the student and employer demands in their regions. Some of the variations in program requirements reflect those differences.

Community colleges also have not had the results of a survey such as this one to see what the norms, minimums, and maximums are for programs around the country for the purpose of peer benchmarking.

FIFTEEN-YEAR TREND IN BACHELOR'S DEGREE REQUIREMENTS

A positive finding of this survey is that typical program requirements for bachelor's degrees have declined broadly since 1995. When the Board of Regents conducted its original survey, only seven of the 77 programs included in both surveys had median program requirements of 120. Now, 50 out of 77 have a median of 120.

The Regents' 1995 study was conducted against the background of the emerging accountability movement in higher education. Several states were concerned with the length of time required to complete a bachelor's degree, the argument being that length equated to state resources utilized and, hence, the longer that students took to complete their undergraduate experience, the greater the number of state dollars expended on those students instead of on the high school graduates waiting to take their places. This sentiment was especially true in growth states such as Florida.

The 1995 study and the policy trend toward reducing program requirements were inspired in part by a report from the National Center for Educational Statistics (NCES) showing that the mean number of credit hours students earned in the course of completing a bachelor's degree had increased from 126 credits for the high school class of 1972 to 139.4 credits for the high school class of 1982, a 9.6 percent increase (Adelman 1995). Part of this increase was attributed to inflation in program requirements, which generally sat at 120 until the 1970s, when they started creeping up. The NCES report did not include associate's degrees, and some of the states that chose to level their degree requirements did so only at the bachelor's level, which may be one reason that median requirements for those degrees remain consistently above 60.

In response to the growth in credits to degree, Florida adopted legislation in 1995 that called for the reduction of all requirements for all baccalaureates offered by the State University System of Florida to 120 credit hours, with exceptions to be provided on a case-by-case basis by the Florida Board of Regents (since dissolved and replaced by a constitutional Board of Governors). The 1995 survey provided the data on national norms that was used to support (or refute) claims for exceptions to the 120-hour rule.

Many other states followed a similar course. Wisconsin was one of the earliest states to set a system-wide goal to reduce credits to degree, while other states took Florida's study as a reference point and used it in their own reform efforts. In states without legislative or regulatory mandates, individual institutions also have followed the general trend and reduced their requirements. Overall, however, the tables above suggest that the drive to reduce credit hours succeeded. It is a strong example of how policy leadership can reduce barriers to college completion.

In the current study, we took special care to include as many as possible of the original survey participants, so that the comparative results would be meaningful. When institutions from the original survey did not respond with a completed survey template, we attempted to find current program requirements in their online catalogs. Ultimately, we were able to include data for 71 of the 75 original survey respondents in the current report.

The 1995 survey provided summaries of low-, moderate-, and high-credit-hour requirements, grouped into broad program categories. Programs with low-credit-hour requirements were defined as those for which 40% or more of the programs reported 120 credit hours. Programs with moderate-credit-hour requirements were defined as those for which 25% to 39% of the programs required 120 credit hours. While programs with high-credit-hour requirements were defined as those for which (a) the median was at or above 123 hours; (b) less than 25% of the programs were at 120; and (c) more than 30% of the programs were over 129.

The following table presents the summaries from 1995 alongside the summaries for the same program categories in 2011. The earlier survey included a larger number of specific programs, but the institution samples are largely the same, and the declines in median requirements below parallel those for specific programs as shown in Appendix 3.

Program categories with low-credit-hour requirements

Mean and median requirements for program categories with low-credit-hour requirements in 1995 declined further by 2011. In 1995, two of 10 programs (Liberal Studies and Area & Ethnic Studies) had median requirements of 120, while by 2011 all 10 had median requirements of 120.

	1995		2011	
CATEGORY	MEAN	MEDIAN	MEAN	MEDIAN
Liberal Studies	123	120	121	120
Area & Ethnic Studies	122.5	120	121	120
Foreign Language	123	120.5	121	120
Social Sciences	123	122	121	120
Letters	123	122	121	120
Protective Services	123	122	122	120
Philosophy & Religion	123	123	121	120
Psychology	124	122.5	122	120
Mathematics	124	122	121	120
Multi-Discipl. Studies	124	124	121	120

Program categories with moderate-credit-hour requirements

Among program categories that were listed as having moderate-credit-hour requirements in 1995, medians for all except computer science declined to 120 by 2011. The declines in median requirements ranged from one credit hour in computer science to six in business and management.

	1995		2011	
CATEGORY	MEAN	MEDIAN	MEAN	MEDIAN
Life Sciences	124.9	124	122	120
Public Services	124.3	124	122	120
Physical Sciences	124.5	124	122	120
Computer Science	125.1	124	123	123
Mass Communication	124.3	124	122	120
Visual & Perform. Arts	126	124	123	120
Business & Management	125.7	126	122	120

Program categories with high-credit-hour requirements

All four of the program categories with high-credit-hour requirements in 1995 were still above 120 credits in 2011, although all have declined. Engineering remained the highest of all categories in both surveys, although the median requirements declined from 132 in 1995 to 128 in 2011.

	1995		2011	
CATEGORY	MEAN	MEDIAN	MEAN	MEDIAN
Education	128	128	125	124.5
Health Professions	131	128	123	122
Agriculture Sciences	127	128	123	122
Engineering	132	132	128	128

In 1995, the categories with relatively low-credit-hour requirements belonged mostly to the liberal arts and social sciences programs. Those programs have lower means and medians today than they did in 1995. Programs in the moderate-credit-hour requirements category show a much more significant change in median credit-hour requirements. Among the categories with the highest credit-hour requirements in 1995, all have dropped significantly. While engineering program medians are consistently higher than others, they also have declined since 1995.

POLICY RECOMMENDATIONS AND CHECKLIST

To continue the improvement higher education has seen with bachelor's degree requirements, and to extend the reforms to two-year colleges, state and institutional leaders need to work together. The progress to date is proof that it can be done.

As part of the continued reform effort:

- States and institutions should ensure that they are at the norms for their programs. For example, a bachelor's in history or psychology should be 120 hours. This report can be cited to identify norms for the most-frequently offered programs.
- Education leaders should work with accrediting organizations and state licensing bodies to reduce the number of programs that require more than 120 credit hours for bachelor's degreee and 60 for associate's degrees.
- Community colleges should reduce the number of institutions and associate's degree programs that require more than 60 credits.
- States should use the positive news from this report — that policy change is possible and has taken place at many well-respected institutions — to help push those institutions that remain outside the norms to make necessary changes. The upward trend in bachelor's degree program requirements in the 1970s and 1980s was halted and reversed through concerted attention and policy changes, often at the state level.
- Higher education leaders should recognize that program requirements are only a small part of the excess time and credit problem. States also should focus on failed or withdrawn courses, imperfect transfer of credits, changes in major, and voluntary additional transcript credits, which are among the other sources of extended time and credit hours.

Checklist

One way to approach a credit hour requirement policy change at the state or institutional level is to use a checklist like the one below. Start by putting together a list of program requirements. For states, gather a sample of program requirements from institutional online catalogs — maybe four or five different programs with different typical credit hour requirements (based on the tables in this report) from four or five institutions.

Questions to ask:

- Where do program requirements fall relative to the norms listed in this report?
  - Most at 60 or 120 credits — the standard requirements only
  - Some at 60 or 120 credits, but many above

- Near the median in most cases
- In or near the maximum or the top 10%

- If programs are above 60 or 120 credits, what do we know about how and why such difference(s) exist?
  - Similar courses are offered at higher credit levels (e.g., a single term of math or foreign language at three hours vs. five hours)
  - More extensive general education requirements
    - Required by state/system
    - Institutional/departmental prerogative
  - Additional university- or college-level requirements (e.g., orientation, career search, etc.)
    - Required by state/system
    - Institutional/departmental prerogative
  - More extensive major requirements
  - More electives
  - State licensure/regulatory requirements (e.g., nursing, teaching, vocational programs)
    - Could these be met with fewer credits by reducing electives (in effect, making the additional courses needed for regulatory compliance the electives that students seeking licensure would choose)
    - Does the state grant reciprocal licensure to practitioners from other states where requirements are lower?
    - Are the regulatory agencies aware of the national norms for programs in the areas they regulate?
- Are the differences identified appropriate and effective to continue or do the differences prompt further review and possible revision or restructure?
  - How do institutions with fewer required credit hours structure their degrees?
  - What is gained by the additional credit hours?
  - Are there well-respected institutions that require fewer hours (e.g., many of Georgia Tech's engineering programs are 124 hours, while the national median is 128)?
  - Are there measurable outcomes associated with the additional requirements?
- Are the advantages of the longer requirements worth the costs (i.e., greater expense and opportunity cost to the student, potentially lower graduation rates, and increased opportunities for failure)?

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APPENDIX 1. INSTITUTIONS SURVEYED

Associate's degrees

AK	Prince William Sound Community College
AL	Bishop State Community College
	Gadsden State Community College
	Jefferson Davis Community College
	Jefferson State Community College
	Lawson State Community College
	Reid State Technical College
AR	Northwest Arkansas Community College
	Southern Arkansas University Tech
AZ	Chandler/Gilbert Community College
	Cochise College
	Pima Community College
CA	Cabrillo College
	Riverside City College
	San Joaquin Delta College
	Skyline College
CO	Community College of Aurora
	Front Range Community College
	Pikes Peak Community College
	Red Rocks Community College
CT	Gateway Community College
	Norwalk Community College
DE	Delaware Technical and Community College–Owens
	Delaware Technical and Community College–Stanton-Wilmington
	Delaware Technical and Community College–Terry
FL	Broward College
	Florida State College at Jacksonville
	Miami Dade
	Saint Johns River State College
	St. Petersburg College
	Valencia Community College
GA	Darton College
	East Georgia College
	Gaston College
	Lanier Technical College
HI	Kapiolani Community College
IA	Des Moines Area Community College
	Eastern Iowa Community College
	Hawkeye Community College
	Indian Hills Community College
	Kirkwood Community College
IL	Black Hawk College
	College of DuPage
	Elgin Community College
	Harper College
	Illinois Central College
	Illinois Valley Community College
	Moraine Valley Community College
	Oakton Community College
	Parkland College–Champaign Illinois
IN	Ivy Tech Community College–Central Indiana
	Ivy Tech Community College–Lafayette
	Ivy Tech Community College–Northeast
	Ivy Tech Community College–Southwest
KS	Fort Hays University
	Hutchinson Community College

Associate's degrees (cont.)

KY	Hopkinsville Community College
LA	Bossier Parish Community College
	South Louisiana Community College
	Sowela Technical Community College
MA	North Shore Community College
	Quinsigamond Community College
MD	Allegany College of Maryland
	College of Southern Maryland
ME	Central Maine Community College
	Eastern Maine Community College
	Kennebec Valley Community College
	Northern Maine Community College
	Southern Maine Community College
MI	Delta College
	Grand Rapids Community College
	Oakland Community College
	Washtenaw Community College
MN	Lake Superior College
	Normandale Community College
MO	Ozarks Technical Community College
	Saint Louis Community College District
	St. Charles Community College
MS	Northwest Mississippi Community College
MT	Flathead Valley Community College
	Miles Community College
	Montana State University-Great Falls College of Technology
NC	Asheville-Buncombe Technical Community College
	Davidson County Community College
	Durham Technical Community College
	Haywood Community College
ND	North Dakota State College of Science
NE	Southeast Community College
NH	Granite State College
	NHTI-Concord's Community College
NJ	Middlesex County College
NM	Central New Mexico Community College
	San Juan College
	Santa Fe Community College
NV	College of Southern Nevada
	Truckee Meadows Community College
NY	CUNY Borough of Manhattan Community College
	Onondaga Community College
OH	Ashland University
	Central Ohio Technical College
	Cuyahoga Community College
	Edison State Community College
	Lorain County Community College
	Sinclair Community College
OK	Northern Oklahoma College
	Oklahoma City Community College
	Rose State College
	Tulsa Community College
OR	Chemeketa Community College
	Clackamas Community College
	Lane Community College
	Mount Hood Community College
	Portland Community College
PA	Harrisburg Community College
RI	Community College of Rhode Island

Associate's degrees (cont.)

SC	Greenville Technical College
	Midlands Technical College
	Piedmont Technical College
	Trident Technical College
	University of South Carolina
SD	Mitchell Technical Institute
	Southeast Technical Institute
	Western Dakota Technical Institute
TN	Jackson State Community College
	Northeast State Community College
	Roane State Community College
	Walters State Community College
TX	Central Texas College
	El Paso Community College
	Houston Community College
UT	Salt Lake Community College
	Utah Valley University
VA	Thomas Nelson Community College
VT	Community College of Vermont
WA	Bellevue College
	Cascadia Community College
	Clark College
	Green River Community College
WI	Blackhawk Technical College
	Chippewa Valley Technical College
	Northeast Wisconsin Technical College
	Waukesha County Technical College
	Western Technical College
	Wisconsin Indianhead Technical College
WV	Kanawha Valley Community and Technical College
	Mountwest Community and Technical College
	Pierpont Community and Technical College
	Southern West Virginia Community and Technical College
	West Virginia Northern Community College
WY	Casper College
	Northwest College
	Sheridan College
	Western Wyoming Community College

Bachelor's degrees

AK	University of Alaska–Anchorage
	University of Alaska–Fairbanks
AL	Auburn University
	Jacksonville State University
	University of Alabama
	University of Alabama–Birmingham
AR	University of Arkansas–Fayetteville
	University of Central Arkansas
AZ	Arizona State University
	Northern Arizona University
CA	California State University–Chico
	California State University–Northridge
	California State University–San Marcos
	University California–Davis
	University of California–Irvine
	University of California–Long Beach
	University of California–Los Angeles
CO	Metropolitan State College of Denver
	University of Colorado–Boulder
	University of Northern Colorado
	Western State College of Colorado
CT	Central Connecticut State University
	University of Connecticut
DC	University of the District of Columbia
DE	University of Delaware
FL	Florida International University
	Florida State University
	University of Central Florida
	University of Florida
	University of South Florida
GA	Augusta State University
	Georgia Institute of Technology
	Georgia Institute of Technology–Main Campus
	Georgia Southern University
	Georgia State University
	University of Georgia
HI	University of Hawaii–West Oahu
IA	Iowa State University
	University of Iowa
	University of Northern Iowa
ID	Boise State University
	University of Idaho
IL	Northeastern Illinois University
	Southern Illinois University–Carbondale
	University of Illinois–Chicago
	University of Illinois–Urbana Champaign
IN	Ball State University
	Indiana State University
	Purdue University–Main Campus
KS	Fort Hays University
	Kansas State University
	University of Kansas
	Wichita State University
KY	University of Kentucky
	University of Louisville
LA	Louisiana State University
	Northwestern State University of Louisiana
	University of New Orleans
MA	University of Massachusetts–Boston
	University of Massachusetts–Dartmouth
	University of Massachusetts–Amherst

Bachelor's degrees (cont.)

MD	Salisbury University
	Towson University
	University of Maryland-Baltimore
	University of Maryland–College Park
	University of Maryland–Eastern Shore
ME	University of Maine Central Office
	University of Maine–Main Campus, Orono
MI	University of Michigan–Ann Arbor
	Western Michigan University
MN	University of Minnesota–Duluth
	University of Minnesota–Mankato
MO	Missouri Southern State University
	Missouri State University–Springfield
	Missouri University of Science and Technology
	Southeast Missouri State University
	University of Missouri–Columbia
	University of Missouri–Kansas City
MS	Mississippi State University
	University of Mississippi
MT	Montana Tech of the University of Montana
	The University of Montana
NC	North Carolina A&T State University
	North Carolina State University
	University of North Carolina–Chapel Hill
	University of North Carolina–Greensboro
ND	North Dakota State University–Main Campus
	University of North Dakota
NE	University of Nebraska–Lincoln
	University of Nebraska–Omaha
NH	Granite State College University System of NH
	Keene State College
	Plymouth State University
	University of New Hampshire–Main Campus
NJ	Rowan University
	Rutgers University
	Thomas Edison State College
	William Paterson University of New Jersey
NM	New Mexico Highlands University
	New Mexico State University–Main Campus
NV	Great Basin College
	University of Nevada–Las Vegas
	University of Nevada–Reno
NY	CUNY City College
	Stony Brook University
	SUNY–Binghamton
	SUNY–Brockport
	SUNY College at Oswego
	SUNY–New Paltz
OH	Cleveland State University
	Miami University
	Ohio State University–Main Campus
	Ohio University–Main Campus
	University of Cincinnati
	Wright State University
OK	Cameron University
	Oklahoma State University
	University of Central Oklahoma
	University of Oklahoma–Norman Campus
	University of Science and Arts of Oklahoma
OR	Portland State University
	University of Oregon

Bachelor's degrees (cont.)

PA	Pennsylvania State University-Main Campus
	Slippery Rock University of Pennsylvania
	Temple University
	University of Pittsburgh–Bradford
	West Chester University of Pennsylvania
RI	University of Rhode Island
SC	University of South Carolina
	University of South Carolina–Aiken
	University of South Carolina–Upstate
SD	Dakota State University
TN	East Tennessee State University
	Tennessee State University
	Tennessee Technological University
	University of Tennessee–Chattanooga
TX	Texas Southern University
	Texas State University–San Marcos
	The University of Texas–Austin
	University of Houston
	University of North Texas System
UT	University of Utah
	Utah Valley University
VA	James Madison University
	Radford University
	Southern Virginia University
	University of Virginia–Main Campus
VT	University of Vermont
WA	Eastern Washington University
	University of Washington–Seattle Campus
	Washington State University
	Western Washington University
WI	University of Wisconsin–Eau Claire
	University of Wisconsin–Madison
	University of Wisconsin–Whitewater
WV	Marshall University
	West Virginia University
WY	University of Wyoming

APPENDIX 2. SPECIFIC PROGRAM SUMMARIES FOR ASSOCIATE'S AND BACHELOR'S DEGREES

The following pages show descriptive statistics for each of the 190 degree programs included in the survey.

1. The **number** of institutions offering the program. This is based on the number of institutions that included the program in their returned survey or for which we were able to find data online.

2. The **minimum** number of credits required. This reflects the lowest number of credit hours required for a degree program among the institutions responding.

   The minimum is one benchmark for institutions to use in evaluating their own program requirements.

3. The **maximum** number of credits required. This reflects the highest number of credits required by any institution in the survey.

   Institutions with requirements near the maximum would be outside the norms for that field.

4. The **mean** number of credits required. The mean is the average of all program requirements, derived by adding up the total credit hour requirements and dividing by the number of institutions. It can be distorted by a few institutions with especially high requirements.

5. The **median** number of credit hours required. The median is based on the credit hours required by institutions falling exactly in the middle of the group of respondents. If there are an even number of institutions in the group and the two in the middle of the group have different requirements, the median will fall between those two (e.g., 63.5). Otherwise, there will be no decimal points unless one institution includes fractional credits in its own requirements.

   The median is an important benchmark for institutions to use to know if they are above or below the majority of their peers.

6. The **top 10%** shows the level at which only 10% of institutions would have higher requirements. There are decimal points because there are often ties.

   The top 10% level is a good benchmark for institutions to know if they have requirements among the highest for a program, even if they are not at the maximum.

Program summaries, bachelor's degrees

CIP	DEGREE TITLE	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN	TOP 10%
Agriculture, Agriculture Operations, and Related Sciences							
01.0901	Animal Sciences, General	46	120	132	123.2	120.0	128.0
Natural Resources and Conservation							
03.0103	Environmental Studies	56	120	155	123.0	120.0	128.0
03.0104	Environmental Science	75	120	128	122.2	120.0	128.0
Area, Ethnic, Cultural, Gender, and Group Studies							
05.0201	African-American/Black Studies	65	120	132	121.3	120.0	124.0
05.0207	Women's Studies	90	120	128	121.3	120.0	125.0
Communication, Journalism, and Related Programs							
09.0101	Speech Communication and Rhetoric	93	120	128	121.5	120.0	125.8
09.0102	Mass Communication/Media Studies	83	120	128	122.4	120.0	128.0
09.0401	Journalism	93	120	130	122.2	120.0	128.0
Computer and Information Sciences and Support Services							
11.0101	Computer and Information Sciences, General	83	120	134	123.2	122.0	128.0
11.0401	Information Science/Studies	50	120	128	122.4	121.5	127.1
11.0701	Computer Science	118	120	137	123.6	122.5	128.0
Education							
13.1001	Special Education and Teaching, General	81	120	157	126.3	124.0	134.0
13.1202	Elementary Education and Teaching	127	120	157	126.1	124.0	131.0
13.1203	Junior High/Interm/Mid School Education and Teaching	58	120	154	127.9	126.0	137.3
13.1205	Secondary Education and Teaching	74	120	153	125.4	124.0	129.7
13.1210	Early Childhood Education and Teaching	105	120	157	126.0	124.0	134.0
13.1302	Art Teacher Education	79	120	157	127.8	126.0	141.2
13.1305	English/Language Arts Teacher Education	81	120	157	124.7	124.0	128.0
13.1307	Health Teacher Education	41	120	157	125.8	123.0	133.0
13.1311	Mathematics Teacher Education	82	120	157	125.0	124.0	129.9
13.1312	Music Teacher Education	108	120	157	129.7	128.0	140.3
13.1314	Physical Education Teaching and Coaching	80	120	149	124.4	124.0	129.1
13.1316	Science Teacher Education/Gen Science Teacher Education	75	120	172	128.3	124.0	146.0
13.1318	Social Studies Teacher Education	66	120	159	126.8	124.0	134.5
13.1330	Spanish Language Teacher Education	53	120	157	125.7	124.0	130.0
Engineering							
14.0701	Chemical Engineering	78	120	139	129.3	129.0	134.3
14.0801	Civil Engineering, General	94	120	137	128.8	128.0	134.0
14.0901	Computer Engineering, General	88	120	137	127.5	128.0	132.0
14.1001	Electrical and Electronics Engineering	107	120	143	127.8	128.0	133.4
14.1901	Mechanical Engineering	104	120	137	127.7	128.0	132.0

Program summaries, bachelor's degrees (cont.)

CIP	DEGREE TITLE	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN	TOP 10%
Foreign Languages, Literatures, and Linguistics							
16.0101	Foreign Languages and Literatures, General	56	120	128	122.2	120.0	128.0
16.0102	Linguistics	56	120	128	121.2	120.0	124.5
16.0501	German Language and Literature	92	120	128	121.9	120.0	128.0
16.0901	French Language and Literature	119	120	128	121.8	120.0	128.0
16.0905	Spanish Language and Literature	129	120	128	121.8	120.0	128.0
16.12	Classics and Classical Languages, Literatures, and Linguistics	63	120	128	121.8	120.0	128.0
Family and Consumer Sciences/Human Sciences							
19.0101	Family and Consumer Sciences/Human Sciences, General	48	120	132	122.3	120.0	128.0
19.0701	Human Development and Family Studies, General	42	120	130	122.3	120.0	127.8
English Language and Literature/Letters							
23.0101	English Language and Literature, General	162	120	128	121.9	120.0	128.0
Liberal Arts and Sciences, General Studies and Humanities							
24.0101	Liberal Arts and Sciences/Liberal Studies	69	120	128	122.0	120.0	128.0
24.0102	General Studies	50	120	128	122.5	120.0	128.0
24.0103	Humanities/Humanistic Studies	45	120	133	122.0	120.0	128.0
Biological and Biomedical Sciences							
26.0101	Biology/Biological Sciences, General	164	120	131	122.5	120.0	128.0
26.0202	Biochemistry	95	120	159	123.1	120.0	128.0
Mathematics and Statistics							
27.0101	Mathematics, General	164	120	143	122.1	120.0	128.0
Multi/Interdisciplinary Studies							
30.9999	Multi-/Interdisciplinary Studies, Other	83	120	133	122.1	120.0	128.0
Parks, Recreation, Leisure, and Fitness Studies							
31.0101	Parks, Recreation and Leisure Studies	50	120	130	122.9	120.0	128.0
31.0501	Health and Physical Education/Fitness, General	59	120	138	123.7	122.0	128.2
31.0504	Sport and Fitness Administration/ Management	56	120	132	122.8	120.0	128.0
31.0505	Kinesiology and Exercise Science	88	120	136	122.6	120.0	128.0
Philosophy and Religious Studies							
38.0101	Philosophy	143	120	130	121.8	120.0	128.0
38.0201	Religion/Religious Studies	83	120	128	122.3	120.0	128.0
Physical Sciences							
40.0501	Chemistry, General	165	120	150	122.8	120.0	128.0
40.0601	Geology/Earth Science, General	121	120	159	122.5	120.0	128.0
40.0801	Physics, General	145	120	155	122.4	120.0	128.0
Psychology							
42.0101	Psychology, General	164	120	145	122.1	120.0	128.0

Program summaries, bachelor's degrees (cont.)

CIP	DEGREE TITLE	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN	TOP 10%
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services							
43.0104	Criminal Justice/Safety Studies	86	120	131	122.5	120.0	128.0
Public Administration and Social Service Professions							
44.0401	Public Administration	37	120	128	121.6	120.0	125.4
44.0701	Social Work	101	120	150	122.8	120.0	128.0
Social Sciences							
45.0101	Social Sciences, General	50	120	134	122.5	120.0	128.0
45.0201	Anthropology	122	120	141	121.7	120.0	128.0
45.0601	Economics, General	142	120	128	121.8	120.0	128.0
45.0701	Geography	101	120	128	121.6	120.0	126.0
45.0901	International Relations and Affairs	65	120	128	122.4	120.0	128.0
45.1001	Political Science and Government, General	157	120	128	121.8	120.0	128.0
45.1101	Sociology	151	120	144	121.9	120.0	128.0
Visual and Performing Arts							
50.0301	Dance, General	65	120	133	123.0	120.0	128.0
50.0501	Drama and Dramatics/Theatre Arts, General	138	120	136	122.3	120.0	129.0
50.0701	Art/Art Studies, General	120	120	147	123.1	120.0	128.0
50.0702	Fine/Studio Arts, General	104	120	147	123.6	122.0	128.0
50.0703	Art History, Criticism and Conservation	94	120	147	122.3	120.0	128.0
50.0901	Music, General	143	120	165	124.0	121.0	128.0
50.0903	Music Performance, General	107	120	177	125.2	124.0	132.0
Health Professions and Related Programs							
51.0913	Athletic Training/Trainer	74	120	135	123.0	122.0	128.0
51.1005	Clinical Laboratory Science/Medical Technology/Technologist	51	120	137	125.1	125.0	131.0
51.3801	Registered Nursing/Registered Nurse	104	120	149	124.6	124.0	129.7
Business, Management, Marketing, and Related Support Services							
52.0101	Business/Commerce, General	50	120	128	122.8	121.0	128.0
52.0201	Business Administration and Management, General	149	120	151	122.5	120.0	128.0
52.0301	Accounting	145	120	150	123.3	120.0	128.0
52.0801	Finance, General	123	120	140	122.6	120.0	128.0
52.1001	Human Resources Management/Personnel Admin General	50	120	132	123.0	122.0	128.0
52.1101	International Business/Trade/Commerce	58	120	154	123.6	122.0	128.0
52.1201	Management Information Systems, General	86	120	130	122.4	120.0	128.0
52.1401	Marketing/Marketing Management, General	122	120	131	122.5	120.0	128.0
History							
54.0101	History, General	165	120	141	122.1	120.0	128.0

Program summary, associate's degrees

CIP	DEGREE TITLE	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN	TOP 10%
Agriculture, Agriculture Operations, and Related Sciences							
01.0601	Applied Horticulture/Horticulture Operations, General	25	60	76	66.0	66.0	70.6
Communication, Journalism, and Related Programs							
09.0401	Journalism	22	60	69	63.1	64.0	65.9
Computer and Information Sciences and Support Services							
11.0101	Computer and Information Sciences, General	62	60	76	64.8	64.0	72.8
11.0103	Information Technology	36	60	74	64.1	63.5	68.5
11.0201	Computer Programming/Programmer, General	54	60	99	66.1	65.0	70.7
11.0202	Computer Programming, Specific Applications	21	60	71	64.2	64.0	67.0
11.0301	Data Processing and Data Processing Technology/Technician	9	60	75	66.1	66.0	72.6
11.0401	Information Science/Studies	15	60	70	63.7	64.0	66.0
11.0701	Computer Science	25	60	78	64.4	64.0	69.8
11.0801	Web Page, Digital/Multimedia and Information Resources Design	54	60	80	64.7	64.0	68.7
11.0901	Computer Systems Networking and Telecommunications	76	60	99	66.4	65.7	73.5
Personal and Culinary Services							
12.0401	Cosmetology/Cosmetologist, General	12	62	108	71.3	67.0	75.0
12.0503	Culinary Arts/Chef Training	58	60	85	70.0	70.0	75.3
Education							
13.0101	Education, General	35	60	76	63.3	62.0	66.6
13.1202	Elementary Education and Teaching	35	60	71	63.7	63.0	67.6
13.1210	Early Childhood Education and Teaching	91	60	105	65.8	64.0	71.0
13.1501	Teacher Assistant/Aide	17	60	69	64.2	64.0	67.0
Engineering							
14.0101	Engineering, General	47	60	76	66.0	66.0	72.3
Engineering Technologies and Engineering-Related Fields							
15.0101	Architectural Engineering Technology/Technician	36	60	90	68.4	67.0	75.0
15.0201	Civil Engineering Technology/Technician	32	60	86	68.8	69.0	76.0
15.0303	Electrical, Electronic and Communications Engineering Technology/Technician	72	60	84	67.7	68.0	75.0
15.0612	Industrial Technology/Technician	21	60	74	64.1	63.0	71.0
15.0613	Manufacturing Engineering Technology/Technician	35	60	100	67.0	65.0	72.6
15.0805	Mechanical Engineering/Mechanical Technology/Technician	32	60	80	67.9	67.5	75.9
15.1202	Computer Technology/Computer Systems Technology	25	60	80	67.2	66.0	77.2

Program summaries, associate's degrees (cont.)

CIP	DEGREE TITLE	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN	TOP 10%
Engineering Technologies and Engineering-Related Fields (cont.)							
15.1301	Drafting and Design Technology/ Technician, General	36	60	80	66.4	65.0	75.0
15.1303	Architectural Drafting and Architectural Cad/Cadd	29	60	73	66.1	65.3	71.2
15.1306	Mechanical Drafting and Mechanical Drafting CAD/CADD	28	60	75	66.5	66.0	72.6
Family and Consumer Sciences/Human Sciences							
19.0706	Child Development	15	60	69	62.8	62.0	66.0
19.0708	Child Care and Support Services Management	17	61	70	65.0	65.0	68.2
19.0709	Child Care Provider/Assistant	18	60	67	62.7	62.0	65.6
Legal Professions and Studies							
22.0301	Legal Administrative Assistant/Secretary	25	60	76	66.5	67.0	75.2
22.0302	Legal Assistant/Paralegal	68	60	72	64.4	64.0	68.3
English Language and Literature/Letters							
23.0101	English Language and Literature, General	39	60	69	62.7	62.0	65.2
Liberal Arts and Sciences, General Studies and Humanities							
24.0101	Liberal Arts and Sciences/Liberal Studies	83	60	70	62.2	62.0	65.0
24.0102	General Studies	69	60	76	62.5	62.0	65.2
24.0103	Humanities/Humanistic Studies	16	60	66	62.4	63.0	64.0
24.0199	Liberal Arts and Sciences, General Studies and Humanities, Other	41	60	76	62.4	61.0	66.0
Biological and Biomedical Sciences							
26.0101	Biology/Biological Sciences, General	43	60	81	64.9	64.0	72.2
Mathematics and Statistics							
27.0101	Mathematics, General	44	60	69	63.4	63.5	67.7
Multi/Interdisciplinary Studies							
30.0101	Biological and Physical Sciences	18	60	68	62.6	63.0	64.3
30.9999	Multi-/Interdisciplinary Studies, Other	18	60	78	65.9	64.0	76.0
Parks, Recreation, Leisure, and Fitness Studies							
31.0501	Health and Physical Education/Fitness, General	31	60	70	63.7	64.0	68.0
Physical Sciences							
40.0101	Physical Sciences	24	60	70	62.7	62.0	65.0
40.0501	Chemistry, General	34	60	70	64.3	64.0	69.0
Psychology							
42.0101	Psychology, General	43	60	69	63.1	64.0	66.0
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services							
43.0102	Corrections	25	60	69	64.5	64.0	68.0
43.0103	Criminal Justice/Law Enforcement Administration	69	60	75	64.5	64.0	69.2
43.0104	Criminal Justice/Safety Studies	40	60	80	64.1	64.0	68.0

Program summaries, associate's degrees (cont.)

CIP	DEGREE TITLE	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN	TOP 10%
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services (cont.)							
43.0107	Criminal Justice/Police Science	63	60	76	64.4	64.0	71.0
43.0201	Fire Prevention and Safety Technology/ Technician	30	60	82	64.5	62.5	70.2
43.0203	Fire Science/Fire-Fighting	53	60	81	65.3	64.0	71.8
Public Administration and Social Service Professions							
44.00	Human Services, General	34	60	76	65.5	64.5	73.4
44.0701	Social Work	39	60	74	64.6	64.0	69.4
Social Sciences							
45.0101	Social Sciences, General	24	60	67	62.9	64.0	65.6
45.1101	Sociology	32	60	68	62.6	62.5	64.9
Construction Trades							
46.0201	Carpentry/Carpenter	19	61	83	66.5	64.0	73.8
46.0302	Electrician	20	60	76	65.5	64.0	73.2
Mechanic and Repair Technologies/Technicians							
47.0101	Electrical/Electronics Equipment Installation and Repair, General	12	60	82	69.5	69.5	76.9
47.0201	Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/ Technician	38	60	81	66.6	66.0	73.3
47.0303	Industrial Mechanics and Maintenance Technology	15	60	81	66.3	64.0	73.0
47.0603	Autobody/Collision and Repair Technology/Technician	35	60	89	68.4	69.0	74.6
47.0604	Automobile/Automotive Mechanics Technology/Technician	82	60	104	70.0	69.3	75.0
47.0605	Diesel Mechanics Technology/Technician	38	60	87	69.7	68.0	80.0
Precision Production							
48.0501	Machine Tool Technology/Machinist	30	60	83	69.5	71.0	79.1
48.0508	Welding Technology/Welder	48	60	84	66.5	66.0	73.0
Visual and Performing Arts							
50.0402	Commercial and Advertising Art	20	60	74	65.3	64.5	72.0
50.0408	Interior Design	32	60	76	68.5	69.0	74.8
50.0409	Graphic Design	46	60	96	65.6	65.0	70.0
50.0501	Drama and Dramatics/Theatre Arts, General	33	60	70	63.6	64.0	67.6
50.0701	Art/Art Studies, General	42	60	81	64.3	64.0	67.9
50.0901	Music, General	35	60	73	64.5	64.0	70.0
Health Professions and Related Programs							
51.0602	Dental Hygiene/Hygienist	57	60	113	80.2	79.0	91.4
51.0707	Health Information/Medical Records Technology/Technician	52	60	84	68.2	67.0	73.0
51.0716	Medical Administrative/Executive Assistant and Medical Secretary	29	60	77	66.8	67.0	74.2

Program summaries, associate's degrees (cont.)

CIP	DEGREE TITLE	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN	TOP 10%
Health Professions and Related Programs (cont.)							
51.0801	Medical/Clinical Assistant	36	60	86	66.3	65.0	73.5
51.0803	Occupational Therapist Assistant	30	66	86	73.1	72.0	80.3
51.0806	Physical Therapy Technician/Assistant	55	65	84	71.9	70.0	77.6
51.0808	Veterinary/Animal Health Technology/ Technician and Veterinary Assistant	24	64	81	72.3	73.0	76.0
51.0904	Emergency Medical Technology/Technician (Emt Paramedic)	78	60	90	70.1	69.7	78.6
51.0907	Medical Radiologic Technology/Science - Radiation Therapist	36	60	89	75.2	75.5	86.0
51.0908	Respiratory Care Therapy/Therapist	67	65	101	75.8	76.0	84.4
51.0909	Surgical Technology/Technologist	30	60	74	66.8	66.5	71.1
51.0910	Diagnostic Medical Sonography/ Sonographer and Ultrasound Technician	28	54	94	73.2	72.0	82.9
51.0911	Radiologic Technology/Science - Radiographer	55	60	116	77.2	75.0	89.0
51.1004	Clinical/Medical Laboratory Technician	51	60	88	72.2	71.0	80.0
51.1501	Substance Abuse/Addiction Counseling	22	60	74	66.8	66.0	71.3
51.3801	Registered Nursing/Registered Nurse	89	60	96	71.7	72.0	76.4
51.3901	Licensed Practical/Vocational Nurse Training	24	60	81	68.4	69.0	73.7
Business, Management, Marketing, and Related Support Services							
52.0101	Business/Commerce, General	41	60	69	62.9	62.0	67.0
52.0201	Business Administration and Management, General	113	60	77	64.7	64.0	69.0
52.0204	Office Management and Supervision	39	60	72	64.3	64.0	69.0
52.0301	Accounting	81	60	74	65.5	66.0	70.0
52.0302	Accounting Technology/Technician and Bookkeeping	42	60	76	63.7	64.0	67.0
52.0401	Administrative Assistant and Secretarial Science, General	58	60	76	65.1	65.0	70.8
52.0402	Executive Assistant/Executive Secretary	21	60	77	64.9	64.0	68.0
52.0407	Business/Office Automation/Technology/ Data Entry	21	60	72	65.3	65.0	67.0
52.0901	Hospitality Administration/Management, General	37	60	73	64.9	64.0	69.0
52.0904	Hotel/Motel Administration/Management	20	60	75	65.9	66.0	71.1
52.1101	International Business/Trade/Commerce	1	67	67	67.0	67.0	-
52.1201	Management Information Systems, General	13	60	72	64.9	63.0	72.0
52.1401	Marketing/Marketing Management, General	50	60	76	64.1	64.0	68.0
52.1501	Real Estate	12	60	69	63.1	62.0	65.9
52.1801	Sales, Distribution, and Marketing Operations, General	12	60	69	62.8	61.7	66.7
History							
54.0101	History, General	36	60	70	63.2	64.0	66.5

APPENDIX 3. COMPARISON OF 1995 FLORIDA BOARD OF REGENTS SURVEY RESULTS WITH 2011 SURVEY RESULTS

Bachelor's degrees

		1995					2011				
CIP	DEGREE TITLE	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN
Agriculture, Agriculture Operations, and Related Sciences											
01.0901	Animal Sciences, General.	NA	NA	NA	NA	NA	28	120	130	123.0	120.5
Natural Resources and Conservation											
03.0103	Environmental Studies.	34	120	139	126.4	126.0	28	120	130	122.5	120.0
03.0104	Environmental Science.	NA	NA	NA	NA	NA	35	120	128	121.8	120.0
Area, Ethnic, Cultural, Gender, and Group Studies											
05.0201	African-American/Black Studies.	32	120	131	122.2	120.0	42	120	132	121.2	120.0
05.0207	Women's Studies.	31	120	131	122.5	121.0	50	120	128	121.3	120.0
Communication, Journalism, and Related Programs											
09.0101	Speech Communication and Rhetoric.	45	120	138	124.1	124.0	35	120	128	120.9	120.0
09.0102	Mass Communication/ Media Studies.	NA	NA	NA	NA	NA	40	120	128	121.7	120.0
09.0401	Journalism.	48	120	138	124.6	124.0	46	120	130	121.8	120.0
Computer and Information Sciences and Support Services											
11.0101	Computer and Information Sciences, General.	67	120	137	125.2	124.0	28	120	134	123.4	120.0
11.0401	Information Science/ Studies.	4	120	132	123.0	120.0	17	120	128	122.6	123.0
11.0701	Computer Science.	2	120	135	127.3	127.0	52	120	136	123.5	122.5
Education											
13.1001	Special Education and Teaching, General.	11	120	149	126.9	125.0	29	120	145	124.0	122.0
13.1202	Elementary Education and Teaching.	56	120	165	129.2	128.0	46	120	147	124.7	124.0
13.1203	Junior High/Interm./ Mid. School Education and Teaching.	14	120	130	124.9	125.0	20	120	133	124.3	124.5
13.1205	Secondary Education and Teaching.	34	120	162	127.8	126.0	25	120	130	123.9	124.0
13.1210	Early Childhood Education and Teaching.	NA	NA	NA	NA	NA	39	120	147	124.9	124.0
13.1302	Art Teacher Education.	40	120	152	128.4	126.0	29	120	152	127.4	126.0

		1995					2011				
CIP	DEGREE TITLE	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN
Education (cont.)											
13.1305	English/Language Arts Teacher Education.	38	120	150	127.3	126.0	29	120	129	122.5	121.0
13.1307	Health Teacher Education.	29	120	148	127.8	128.0	9	120	128	122.4	121.0
13.1311	Mathematics Teacher Education.	40	120	150	129.4	126.0	32	120	134	122.9	121.0
13.1312	Music Teacher Education.	46	120	158	131.5	130.0	49	120	152	129.4	129.0
13.1314	Physical Education Teaching and Coaching.	48	120	142	128.2	128.0	24	120	130	123.1	123.0
13.1316	Science Teacher Education/Gen. Science Teacher Education.	39	120	162	127.4	125.0	28	120	149	125.8	124.0
13.1318	Social Studies Teacher Education.	35	120	157	127.4	125.0	25	120	144	124.6	124.0
13.1330	Spanish Language Teacher Education.	NA	NA	NA	NA	NA	16	120	131	123.7	123.0
Engineering											
14.0701	Chemical Engineering.	53	120	150	132.2	132.0	48	120	139	129.9	130.0
14.0801	Civil Engineering, General.	61	120	150	132.9	134.0	54	120	136	128.9	128.0
14.0901	Computer Engineering, General.	43	120	150	131.3	132.0	51	120	136	127.5	128.0
14.1001	Electrical and Electronics Engineering.	62	120	150	131.8	131.0	60	120	136	127.4	128.0
14.1901	Mechanical Engineering.	66	120	150	131.5	131.0	61	120	133	127.5	128.0
Foreign Languages, Literatures, and Linguistics											
16.0101	Foreign Languages and Literatures, General.	25	120	136	123.9	124.0	21	120	128	122.2	120.0
16.0102	Linguistics.	40	120	131	122.4	120.0	35	120	128	121.1	120.0
16.0501	German Language and Literature.	60	120	131	123.1	122.0	48	120	128	121.2	120.0
16.0901	French Language and Literature.	NA	NA	NA	NA	NA	57	120	128	120.9	120.0
16.0905	Spanish Language and Literature.	65	120	132	123.3	122.5	59	120	128	120.9	120.0
16.12	Classics and Classical Languages, Literatures, and Linguistics.	43	120	131	122.3	120.0	38	120	128	121.1	120.0
Family and Consumer Sciences/Human Sciences											
19.0101	Family and Consumer Sciences/Human Sciences, General.	25	120	137	125.7	126.0	26	120	128	121.8	120.0
19.0701	Human Development and Family Studies, General.	NA	NA	NA	NA	NA	19	120	128	121.9	120.0

		1995					2011				
CIP	DEGREE TITLE	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN
English Language and Literature/Letters											
23.0101	English Language and Literature, General.	65	120	138	123.3	122.0	69	120	128	121.2	120.0
Liberal Arts and Sciences, General Studies and Humanities											
24.0101	Liberal Arts and Sciences/Liberal Studies.	31	120	132	123.3	120.0	23	120	128	121.8	120.0
24.0102	General Studies.	15	120	131	123.5	120.0	18	120	128	121.6	120.0
24.0103	Humanities/Humanistic Studies.	29	120	131	122.5	120.0	19	120	128	121.1	120.0
Biological and Biomedical Sciences											
26.0101	Biology/Biological Sciences, General.	69	120	144	124.3	124.0	67	120	131	121.9	120.0
26.0202	Biochemistry.	40	120	134	124.6	124.0	48	120	132	122.1	120.0
Mathematics and Statistics											
27.0101	Mathematics, General.	71	120	138	123.7	122.0	67	120	128	121.0	120.0
Multi/Interdisciplinary Studies											
30.9999	Multi-/Interdisciplinary Studies, Other.	NA	NA	NA	NA	NA	36	120	133	121.4	120.0
Parks, Recreation, Leisure, and Fitness Studies											
31.0101	Parks, Recreation and Leisure Studies.	29	120	136	126.4	128.0	17	120	130	123.4	122.0
31.0501	Health and Physical Education/Fitness, General.	3	128	130	128.7	128.0	18	120	129	122.6	120.0
31.0504	Sport and Fitness Administration/ Management.	2	120	124	122.0	122.0	25	120	128	121.9	120.0
31.0505	Kinesiology and Exercise Science.	21	120	151	127.7	126.0	37	120	136	122.4	120.0
Philosophy and Religious Studies											
38.0101	Philosophy.	69	120	131	123.4	123.0	67	120	130	121.4	120.0
38.0201	Religion/Religious Studies.	33	120	131	123.3	123.0	39	120	128	121.4	120.0
Physical Sciences											
40.0501	Chemistry, General.	73	120	144	124.4	124.0	69	120	130	121.6	120.0
40.0601	Geology/Earth Science, General.	65	120	146	124.8	124.0	56	120	130	121.9	120.0
40.0801	Physics, General.	71	120	144	124.8	124.0	64	120	130	121.5	120.0
Psychology											
42.0101	Psychology, General.	71	120	144	123.5	122.0	67	120	128	121.4	120.0
Homeland Security, Law Enforcement, Firefighting and Related Protective Services											
43.0104	Criminal Justice/Safety Studies.	40	120	132	123.5	122.5	34	120	128	122.1	120.0

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CIP	DEGREE TITLE	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN
Public Administration and Social Service Professions											
44.0401	Public Administration.	19	120	132	124.2	124.0	15	120	128	121.7	120.0
44.0701	Social Work.	48	120	138	124.3	124.0	43	120	128	122.0	120.0
Social Sciences											
45.0101	Social Sciences, General.	29	120	131	122.7	121.0	17	120	128	121.5	120.0
45.0201	Anthropology.	63	120	131	123.4	122.0	63	120	128	121.1	120.0
45.0601	Economics, General.	64	120	131	123.1	121.5	62	120	128	121.2	120.0
45.0701	Geography.	52	120	135	123.3	121.0	47	120	128	121.6	120.0
45.0901	International Relations and Affairs.	20	120	131	123.3	122.5	28	120	128	121.7	120.0
45.1001	Political Science and Government, General.	69	120	131	123.4	123.0	65	120	128	121.1	120.0
45.1101	Sociology.	72	120	131	123.2	122.0	67	120	128	121.2	120.0
Visual and Performing Arts											
50.0301	Dance, General.	32	120	144	125.7	125.0	32	120	130	122.6	120.0
50.0501	Drama and Dramatics/ Theatre Arts, General.	59	120	162	124.9	124.0	61	120	136	122.1	120.0
50.0701	Art/Art Studies, General.	51	120	153	124.3	122.0	45	120	147	122.6	120.0
50.0702	Fine/Studio Arts, General.	44	120	149	126.3	126.0	50	120	147	123.3	120.5
50.0703	Art History, Criticism and Conservation.	43	120	132	122.9	121.0	50	120	147	122.2	120.0
50.0901	Music, General.	60	120	152	125.2	124.0	60	120	154	123.3	120.0
50.0903	Music Performance, General.	44	120	155	128.1	126.0	51	120	177	126.4	124.0
Health Professions and Related Programs											
51.0913	Athletic Training/Trainer.	4	124	128	126.3	126.5	27	120	130	122.7	121.0
51.1005	Clinical Laboratory Science/Medical Technology/ Technologist.	1	124	124	124.0	124.0	24	120	136	124.9	124.0
51.3801	Registered Nursing/ Registered Nurse.	51	120	140	127.3	128.0	37	120	129	123.7	123.0

		1995					2011				
CIP	DEGREE TITLE	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN	# OFFERING PROG.	MIN	MAX	MEAN	MEDIAN
Business, Management, Marketing, and Related Support Services											
52.0101	Business/Commerce, General.	34	120	132	124.4	124.5	20	120	128	122.5	121.0
52.0201	Business Administration and Management, General.	44	120	132	124.3	124.5	58	120	130	121.5	120.0
52.0301	Accounting.	59	120	148	125.4	126.0	59	120	150	122.5	120.0
52.0801	Finance, General.	52	120	148	125.6	126.0	53	120	130	122.0	120.0
52.1001	Human Resources Management/Personnel Admin. General.	15	120	140	126.6	128.0	19	120	132	122.8	122.0
52.1101	International Business/ Trade/Commerce.	15	120	154	129.1	128.0	25	120	154	123.2	120.0
52.1201	Management Information Systems, General.	21	120	142	127.4	128.0	42	120	130	122.2	120.0
52.1401	Marketing/Marketing Management, General.	48	120	148	125.1	125.0	52	120	130	121.9	120.0
History											
54.0101	History, General.	72	120	132	123.2	122.0	69	120	128	121.3	120.0

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