CALCULATING CREDIT HOURS IN ONLINE AND BLENDED LEARNING

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Learning Objectives: Calculating Credit Hours in Online and Blended Learning

Following this presentation you will be able to:

• Know the history of online training
• List the advantages of online education in allied health
• Define the Carnegie Unit
• Discuss the authority (or lack thereof) of agencies to define credit hours
• Distinguish between academic and regulatory authority to define credit hours
• Recognize how these definitions apply (or do not apply) to online training in allied health
• Identify activities that may be used to determine credit hour equivalencies in allied health courses
INTRODUCTION

I. Brief History of Online and Blended Learning
II. Definition of Online and Blended Learning
III. Why online in Allied Health?
IV. What is the Carnegie Unit?
INTRODUCTION

Brief History of Distance/Online Learning:

• First offering of correspondence education over a distance appeared in a Boston newspaper in 1728.

• During the 19th century, advances in the postal service allowed universities to offer correspondence learning degrees through the exchange of mail.

• With the invention of the television came the offering of college credit for courses delivered via TV by the City Colleges of Chicago in 1951.

• The computer became part of learning through computer-assisted learning centers as early as 1982.

• By 1994, the first fully online courses emerged, where students participated in discussions, projects and lectures entirely through the computer.
Calculating Credit Hours in Online and Blended Learning

INTRODUCTION

Simple Definitions:

1. **Online Learning** – Learning delivered by Web-based or Internet-based technologies.

2. **Blended Learning** - A combination of traditional classroom-based learning and remote distance learning formats. In a blended course, students are required to attend some classes on campus while completing other technology-based work remotely.
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INTRODUCTION

Why online in Allied Health?

1. Programs more suited for working professionals
2. Resolves space issues at campuses
3. New online healthcare technologies
4. Increased enrollment, especially for students who cannot physically attend classes
5. Reaches a more diverse student population across states/country
6. Enhances student-to-student and faculty-to-student communication through discussion boards, chats and emails
7. Provides 24/7 accessibility to course materials
INTRODUCTION

What is the Carnegie Unit?

- The Carnegie Unit and Credit Hour are time-based references for measuring educational attainment used by American universities and colleges.
- A Carnegie “Unit” assesses secondary school attainment.
- A Student Hour derived from the Carnegie Unit (commonly called a credit hour) assesses post-secondary school attainment.
- A Credit Hour defined as the equivalent of one clock hour (50 minutes) of lecture time for a single student per week over the course of a semester, which equates to approximately 1/10th of a Carnegie Unit.
Calculating Credit Hours in Online and Blended Learning

INTRODUCTION

What is the current definition of a Credit Hour based on the Carnegie Unit?

• One clock hour of instruction per week
• Expectation of two hours of out of class work each week
• Over the course of a semester/trimester/quarter
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INTRODUCTION

A Carnegie Unit “Fun Fact”:

Did you know that back in 1906, the Carnegie Unit was originally designed as a means to evaluate the credit that a faculty member should achieve to establish their pension funds?
CREDIT HOURS
WHAT IS A CREDIT HOUR?

Many Different Measurements
- Clock Hours?
- Lecture Hours?
- Lab Hours?
- Externship Hours?
- Clinical Hours?
- Student Hour (Carnegie Unit)?

Many Different Definitions
- Accrediting Agency
- State Agency
- Licensing Boards
- Federal Financial Aid
- Foreign Systems (ECTS)
IS THERE A DEFINITION OF AN ONLINE CREDIT HOUR?

CONCERNS

• Current definitions based on instructional time do not apply to online.
• Many allied health programs are blended
• Seat time and seat time equivalences may not be the appropriate measure.
• What about the two hours outside class?
WHO HAS THE AUTHORITY TO DEFINE CREDIT HOURS?

Consider the following:

• Determination of credit is an academic decision and part of the curriculum
• Education is state matter under the U.S. Constitution
• The Department of Education is prohibited in its charter from making decisions respecting curriculum
WHO HAS THE AUTHORITY TO DEFINE CREDIT HOURS?

Consider the following:

• Prior to 2010, the CFR did not have a definition of credit hour determination of academic programs, only a definition for financial aid purposes under 34 CFR 668.8

• The definition using the Carnegie model was published in the Federal Register October 29, 2010
FEDERAL OVERSIGHT

• The U.S. Department of Education has authority to regulate its own financial aid programs.
• Its regulations should be restricted to financial oversight.
• Its regulations defer to accrediting and state education agencies and schools for educational authority.
EXAMPLES

• ABHES Definition
• State Specific Definitions
• Nursing Board Requirements for Clinical Hours
ABHES Definition

Semester - minimum of 15 weeks in length. One semester credit is equal to:
• one hour of lecture per week for a semester or the equivalent number of hours.
• two hours of lab per week for a semester or the equivalent number of hours.
• three hours of externship/clinical per week for a semester or the equivalent number of hours.

Quarter - minimum of 10 weeks in length. One-quarter credit is equal to:
• one hour of lecture per week for a quarter or the equivalent number of hours.
• two hours of lab per week for a quarter or the equivalent number of hours.
• three hours of externship/clinical per week for a quarter or the equivalent number of hours.
ABHES DEFINITION

If a program offers both a distance education and a traditional campus-based component, the quality of the education and credit awarded is equivalent in all three aspects of the curriculum: didactic, laboratory, and clinical.

Institutions should be aware that federal requirements regarding the calculation of clock and credit hours, including minimum number of weeks per academic year required for Title IV purposes, may vary from ABHES requirements.
Credit Hour: Except as provided in 34 CFR 668.8(k) and (l), a credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than –
FEDERAL DEFINITION

(1) One hour of classroom or direct faculty instruction and a minimum of two hours of out of class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or
FEDERAL DEFINITION

(2) At least the equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.
DEFERENCE TO ACCREDITING AGENCIES

34 CFR 602.24

Accrediting Agency must do an “effective review and evaluation of the reliability and accuracy of the institution’s assignment of credit hours.”

Accrediting agency must make “a reasonable determination ...[that] the institution’s assignment of credit hours conforms to commonly accepted practice in higher education.”
DEFERENCE TO STATE AGENCIES

34 CFR 603.24

Applies the same language as used in 34 CFR 602.24 to the states.
DIPLOMA PROGRAMS

34 CFR 668.8

• Semester/Trimester – 37.5 clock hours of instruction
• Quarter Hour – 25 clock hours of instruction
• Note: 900/37.5 = 24 & 900/25 = 36

• Exceptions based on Accrediting or State Agency findings so long as work outside of class plus clock hours of instruction meet these measures and clock hours of instruction for semester/trimester credit hours are at least 30, and for quarter credit hours are at least 20
CRITICISMS OF THE RELIANCE ON SEAT TIME

• Seat time is an arbitrary unit and does not measure the “amount of work represented in intended learning outcomes and verified by evidence of student achievement” 34 CFR 600.2

  – Level of rigor and workload varies in a 3 credit lower division course from that required in a 3 credit upper division course
  – Level of Achievement varies from program to program (Requirement of a C or above in some classes)
  – Level of attendance varies based on student absences
CRITICISMS OF THE RELIANCE ON SEAT TIME

• Seat time is an arbitrary unit and does not measure the “amount of work represented in intended learning outcomes and verified by evidence of student achievement” 34 CFR 600.2
  
  – Seat time is not a measure of student achievement (Some students fail)
  – Student achievement of intended learning outcomes is a professional judgment, not an objective measurement
  – ACE, CLE, DANTES, Portfolio Assessment Credits are not based on hours
CRITICISMS OF THE RELIANCE ON EQUIVALENCIES TO SEAT TIME IN ONLINE COURSES

• “Amount of work” varies by student
  – Some students require less work to achieve intended learning outcomes
  – Some instructors require less work
• Student Achievement varies by instructor and student
• Amount of work and student achievement varies by school
MEANS TO DETERMINE AN “EQUIVALENT AMOUNT OF WORK” AND ASSESS STUDENT ACHIEVEMENT OF LEARNING OUTCOMES

• Review demonstration of skills learned and used by each student in class participation activities
• Review student projects that demonstrate skills learned and applied by each student
• Assess student’s ability to demonstrate research skills in the subject matter
• Assess student achievement of learning outcomes
• Evaluate personal growth in student attitudes toward the appreciation of diversity in the learning community
DEMONSTRATION AND
APPLICATION

• PRACTICAL STRATEGIES FOR DEVELOPING ONLINE AND BLENDED COURSES IN ALLIED HEALTH EDUCATION
Online Development Considerations

• The average time spent on a “screen” (multiple screens comprise of an entire course) – this is generally accepted at being between 3-5 minutes per screen.

• Media assets (self playing), videos or animation – the calculation for this is generally a 1:1 ratio although for calculation for learning needs to be examined carefully as many media assets (audio and video) may need to be listened to multiple times (see below diagram, courtesy: Karuna Sanghvi – Coolwords Weblog):
• Links to external learning assets – calculated as an average of the time required to consume content (i.e. average time to read an article or watch a video).
• Simulations and interactions, calculated as a factor of the complexity of the interaction or simulation and can be very tricky as absorption of material can vary significantly depending on the learner profile and capability – the best calculation is to develop an average based on the specific interaction and expertise of the teacher on the requirement.
• Assignments – dependent on the assignment and the time allocated for completion based on instructor and course requirement.
• Student-teacher interactions – online information exchange if it is tracked and managed as a part of the learning activity.
• Assessments and self-tests, all a part of overall seat time developed as an average for student use.

(criteria developed in conjunction with emantras, inc.)
Determining seat time

Catalog description:

- Calculation of credit hours in an online or blended format course is based on the consideration of the following activities:
  - The time spent in live instruction. Live instruction may be
    - synchronous or instructor-led online time, or
    - residential learning in the classroom (blended coursework)
  - The number of screens viewed in the course of online instruction. The average time spent on a “screen” is generally calculated as being between 3-5 minutes per screen.
  - The run-time for required media asset assignments calculated on a 1:1 ratio to seat time. Run time may be factored to account for expected multiple viewings of the asset for review and re-enforcement of the material. Assets may include
    - self playing videos or animation, or
    - audio podcasts and recordings
  - Links to external learning assets – calculated as an average of the time required to consume content such as by
    - reading an article
    - watching a self-paced instructional video,
    - playing an instructional game
    - or completing a simulation
  - Assignments – The instructor expectation of time spent in online instructional (not homework) assignments and activities such as:
    - postings to group discussion sites/bulletin boards.
    - online group project work
    - use of class social media sites for group discussion/participation
    - student-teacher interaction
Learning homepage

Students will log into their Angel Learning account here.

Enter username and password as it is provided.
Student account homepage

To view course(s) that student is enrolled in, s/he will click on the course.
Course Homepage

Students will see that there are six menu tabs at the top of the course page. The academic items will be located under the Lessons Tab.

Click on *Lessons*.
Course Lessons

The Lessons tab will show a list of all lessons that are visible to the student.

Virtual office = The VO is a discussion forum. Students can post their questions regarding the course to the course instructor here.

Course Home = This area contains an introduction to the course and may also list any pertaining ACC policies and techsupport information.
Week 1 – main page

Week 1 contains the following items for student review.

To view the presentation, click on **Week 1 Presentation**.
Week 1 Presentation

To start from the beginning, students click on *Topic 1.0* of the presentation. Also, it is possible for students to view any other topic in the presentation out of order.
Week 1 Presentation

Here is topic 1.1 of the presentation. If students view the "ON" icon animated, then the voice-over narrative of the presentation is active.

The icons in all presentations are:

- Aa = Glossary
- Notepad = notes
- Microphone = transcript
- Volume toggle = sound on or off
- Pause, play, previous, next and replay

Navigational breadcrumbs. ("Home" is student’s Angel Learning account.)
Week 1 Presentation

Here is another topic of the presentation.

In the late 1800s, women from the local communities took up nursing work in hospitals. However, they did not have any special training and were unskilled.
Week 1 Case Study

The Case Study is an interactive self-check tool of materials reviewed so far. Self-check items are not graded.

Click on Enter to view the Case Study.

Students will be given a scenario and be tested on it.

Click Test Me.
Week 1 Case Study

Most Case Studies have 3-4 questions.

Choose the answer and submit.

Click **Next** until the end of the Case Study.
Week 1 Flashcards

Flashcards are also a self-check tool. They appear in most courses and are also interactive.

Review the directions and click **Start**.
Week 1 Flashcards

Flashcards can be viewed by either definition or term. Flip the card accordingly.

Drag and Drop all the cards to the Master Card pile after review is completed.

To use the self-check, click on Test Me.
Week 1 Flashcards

The self-checks gives the option to be tested with either term or definitions.

Select one.

The reverse can also be done.

For example, to test by definitions, students will be given a term and asked to select the correct definition.

Continue until complete.
Week 1 Discussion

In most courses, there is one discussion forum per week. In this course, there are two discussion forums for Week 1. Discussion forums are graded items.

Click on a discussion forum.
Week 1 Discussion

The screen is divided into two sections:

- The top section contains the directions and the forum.
- The bottom section contains the forum with posts.

Directions for discussion.

Weekly Discussion

Please post your initial response by Thursday of each week. Please respond to at least three of the week's forum posts or at least two of your peers by Tuesday 11:59pm.

To support the discussion, please make sure you have read as well. Each response should be at least 100 words.

Week 1 Discussion 1

**topic and question.**

Many healthcare professional organizations have changed the landscape of how patients receive healthcare. Doctors went from visiting patients at home to caring patients in the hospital setting. Visit www.jointcommission.org. How is the Joint Commission involved in ensuring quality patient healthcare?
Week 1 Discussion
Clicking on the *Post Title* icon will **Expand all Threads** to view all posts – students will see the post topics.

Click on the topic to view the post.
Week 1 Drop-box assignment

As with discussion forums, drop-box assignments are also graded items.

Click on the drop-box item to view the assignment.
Week 1 Dropbox assignment

Review the directions for the assignment.

Submit the assignment by uploading it.

Directions for this assignment.

Submit assignment here.

Grades and instructor comments are also seen here.
Week 3, Quiz 1

Quizzes are graded items also. The number of quizzes in each week depends on the course.

Here, the first and second quiz for this course appears in week 3.

The quiz is currently disabled because the term has ended for this course. Otherwise students would click on “Begin Now” and take the quiz.

On this page, information about the quiz (time length, number of attempts, maximum points possible) are also stated.

If a student submits the quiz, their grade and date of submission will also be posted here.
CAUTIONARY EXAMPLE: HLC/NCA AND AIU

• OIG “Alert Memorandum” calling into question HLC’s ability to verify quality education.
  – Questioned format of 5-week, 9 credit classes, which CEC claimed were “totally consistent with good practice and contemporary learning theory.”
  – Why must we still have 10/15 week terms when students are in control of the speed with which they can complete the course?
SUMMARY

• Federal definition still is based on equivalence to seat time

• Many different online activities leading to student achievement of learning outcomes can be quantified

• Online may provide a better means of assessing the achievement of student learning
SPECIFIC QUESTION REMAINING

• Current federal regulations defer to state and accrediting agencies to evaluate credit hours.
• Design of online programs have been based on equivalencies to accrediting agency formulas (Quarter based 10-20-30) (Semester based 15-30-45).

Do we need to factor in 2 hours of additional work per credit hour for online equivalency?
GENERAL QUESTION REMAINING

• Is the Credit Hour obsolete?
• How can we better measure student learning and achievement of learning outcomes?
• As online is integrated into more student programs, how will the U.S. Department of Education effectively assess credit hour equivalencies?
YOUR QUESTIONS?
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