



# Pennsylvania Statewide Transfer and Articulation System Uniform Standards for Credit for Prior Learning Exams

# **Table of Contents**

Introduction	2
Uniform Standard Minimum Scores for Awarding Academic Credit Business & Technology	
Advanced Placement (AP) Exams	
AP Computer Science A	
AP Computer Science Principles	
College Level Examination Program (CLEP) Exams	
Financial Accounting	
Information Systems	
Introductory Business Law	5
Principles of Management	5
Principles of Marketing	5
DSST Exams	ε
Computing and Information Technology	ε
Ethics in Technology	ε
Fundamentals of Cybersecurity	7
Management Information Systems	7
BUSINESS ETHICS AND SOCIETY	7
BUSINESS MATHEMATICS	7
HUMAN RESOURCE MANAGEMENT	8
INTRODUCTION TO BUSINESS	8
MONEY AND BANKING	8
PERSONAL FINANCE	g
PRINCIPLES OF FINANCE	ç
PRINCIPLES OF SUPERVISION	g
International Baccalaureate (IB) Exams	g
ECONOMICS HL	ç
BUSINESS MANAGEMENT HL	
COMPUTER SCIENCE HL	
IB INFORMATION TECHNOLOGY IN A GLOBAL SOCIETY HL	





# Introduction

In 2017 the Pennsylvania general assembly enacted legislation adding a section the Pennsylvania public School Code, 24 P.S. § 20-2002-C(d), requiring public institutions of higher education to:

(1) Adopt and make public uniform standards for determining academic credit for prior learning as outlined in paragraph (4) within 18 months of the effective date of this subsection.

(2) Agree to award academic credit for prior learning, which is determined to meet the standards established under section 2004-C(c)(6) and apply the credit toward graduation, unless prohibited by external accreditation or licensure.

This document establishes the uniform standard minimum scores for which all PA Transfer System participating institutions will award academic credit pursuant to 24 P.S. § 20-2002-C(d). During the standard setting process, committees of faculty and personnel from Transfer System institutions developed additional guidance and recommendations for institutions establishing course equivalencies for exam scores at or above the minimum.

# Uniform Standard Minimum Scores for Awarding Academic Credit

Exam	Minimum Score to Receive Credit
AP Exams	
AP Computer Science A	3
AP Computer Science Principles	3
CLEP Exams	
CLEP Financial Accounting	50
CLEP Information Systems	50
CLEP Introductory Business Law	50
CLEP Principles of Management	50
CLEP Principles of Marketing	50
DSST Exams	
Computing and Information Technology	400
Ethics in Technology	400
Fundamentals of Cyber Security	400
Management Information Systems	400
Business Ethics and Society	400
Business Mathematics	400
Human Resource Management	400
Introduction to Business	400
Money and Banking	400
Personal Finance	400
Principles of Finance	400
Principles of Supervision	400
IB Courses/Exams	
Economics (HL)	4
Business Management (HL)	4
Computer Science (HL)	5



pennsylvania TRANSFER AND ARTICULATION CENTER

Information Technology in a Global Society 5 (HL)

# Business & Technology

# Advanced Placement (AP) Exams

# AP Computer Science A

Understand core aspects of computer science which you can use to create solutions that are understandable, adaptable, and when appropriate, reusable.

The design and implementation of computer programs to solve problems involve skills that are fundamental to the study of computer science. This includes the development and analysis of algorithms and fundamental data structures, and the use of logic and formal methods.

# Minimum Score

A minimum score of 3 should be accepted.

#### Rationale

This standard is in line with College Board and American Council on Education's minimum score recommendations <u>https://aphighered.collegeboard.org/setting-credit-placement-policy/credit-granting-recommendations</u>.

# Additional Credit & Course Equivalency Guidance

It should apply to get credit for Computer Science 1 and this credit should include lab credit even if lab is a separate class/course. Rationale: the AP course requires 20 hours minimum of lab.)

# **AP Computer Science Principles**

AP Computer Science Principles offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. AP Computer Science Principles also gives students the opportunity to use current technologies to create computational artifacts for both self-expression and problem solving. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science.

#### Minimum Score

A minimum score of 3 should be accepted.

#### Rationale

This standard is in line with College Board and American Council on Education's minimum score recommendations <u>https://aphighered.collegeboard.org/setting-credit-placement-policy/credit-granting-recommendations</u>.

#### Additional Credit & Course Equivalency Guidance

CS Principles does teach a lot of good concepts about computer science, but it is more of a survey course than a programming course, and most computer science courses are about one topic, so there is no typical course in a CS major to which CS Principles applies unless the major has a CS0 course. Those who have a CS0 course or CS for non-majors may have courses that map more closely with CS principles, but at least a handful of schools do not have such a course.





This is why the decision really needs to be at the institution level as to how the course is accepted, but a free elective credit for the college is an easy minimum requirement that all institutions should be able to accept.

# College Level Examination Program (CLEP) Exams

# **Financial Accounting**

The Financial Accounting exam covers skills and concepts that are generally taught in a firstsemester undergraduate financial accounting course.

#### Minimum Score

A minimum score of 50 should be accepted.

#### Rationale

This standard is in line with College Board and American Council on Education's minimum score recommendations <u>https://clep.collegeboard.org/develop-your-clep-program/create-a-clep-policy/ace-credit-recommendations</u>.

# Additional Credit & Course Equivalency Guidance

We recommend that it be applied to Financial Accounting, first semester undergraduate financial accounting, first course in the accounting sequence taken by all Business students not just Accounting students.

Rationale: Financial Accounting is a standard course across all schools and a C is accepted by all. Same course as is stated in the program agreement as the first course, Financial Accounting.

# Information Systems

The Information Systems examination covers material that is usually taught in an introductory college-level business information systems course. Questions test knowledge, terminology, and basic concepts about information systems as well as the application of that knowledge. The examination does not emphasize the details of hardware design and language-specific programming techniques. References to applications such as word processing or spreadsheets do not require knowledge of a specific product. The focus is on concepts and techniques applicable to a variety of products and environments. Knowledge of arithmetic and mathematics equivalent to that of a student who has successfully completed a traditional first-year high school algebra course is assumed.

#### Minimum Score

A minimum score of 50 should be accepted.

#### Rationale

This standard is in line with College Board and American Council on Education's minimum score recommendations <u>https://clep.collegeboard.org/develop-your-clep-program/create-a-clep-policy/ace-credit-recommendations</u>.

#### Additional Credit & Course Equivalency Guidance

Recommended equivalency is an Introduction to (Management) Information Systems.

Rationale: Covers the fundamentals in this type course (MIS).





# Introductory Business Law

The Introductory Business Law examination covers material that is usually taught in an introductory one-semester college course in the subject. The examination places not only major emphasis on understanding the functions of contracts in American business law, but it also includes questions on the history and sources of American law, legal systems and procedures, agency and employment, sales, and other topics.

#### Minimum Score

A minimum score of 50 should be accepted.

#### Rationale

This standard is in line with College Board and American Council on Education's minimum score recommendations <u>https://clep.collegeboard.org/develop-your-clep-program/create-a-clep-policy/ace-credit-recommendations</u>.

# Additional Credit & Course Equivalency Guidance

Recommended equivalency is a general Business Law class. If there are 2, then just Business Law 1.

Rationale: Covers the objectives of this very standard course.

# **Principles of Management**

The Principles of Management examination covers material that is usually taught in an introductory course in the essentials of management and organization. Questions on the exam require you to demonstrate knowledge of management functions and techniques, and ability to associate the meaning of specific terminology with important management ideas, processes, and techniques. You will also be required to apply knowledge, general concepts, and principles to specific problems.

#### Minimum Score

A minimum score of 50 should be accepted.

#### Rationale

This standard is in line with College Board and American Council on Education's minimum score recommendations <u>https://clep.collegeboard.org/develop-your-clep-program/create-a-clep-policy/ace-credit-recommendations</u>.

#### Additional Credit & Course Equivalency Guidance

Recommended equivalency is a general Principles of Management course (not Intro to Business.)

Rationale: Covers the objectives of this very standard course.

# Principles of Marketing

The Principles of Marketing examination covers material that is usually taught in a one-semester introductory course in marketing. Such a course is usually known as Basic Marketing, Introduction to Marketing, Fundamentals of Marketing, Marketing, or Marketing Principles. The exam is concerned with the role of marketing in society and within a firm, understanding consumer and organizational markets, marketing strategy planning, the marketing mix, marketing institutions, and other selected topics, such as international marketing, ethics, marketing research, services, and not-for-profit marketing. You're expected to have a basic knowledge of





the economic, demographic, social, cultural, political, legal, and technological trends that are important to marketing.

#### Minimum Score

A minimum score of 50 should be accepted.

#### Rationale

This standard is in line with College Board and American Council on Education's minimum score recommendations <u>https://clep.collegeboard.org/develop-your-clep-program/create-a-clep-policy/ace-credit-recommendations</u>.

#### Additional Credit & Course Equivalency Guidance

Recommended equivalency is a general Principles of Marketing course.

Rationale: Covers the objectives of this very standard course.

# **DSST Exams**

#### Computing and Information Technology

This exam covers topics such as the ability to understand hardware, software licensing and development tools; development life cycles; data management; connectivity, privacy concerns; intellectual property; network etiquette; telecommunications law; artificial intelligence, and globalization.

Minimum Score

Credit will be awarded for a score of 400 or higher.

#### Rationale

The minimum score standard is in line with the American Council on Education's minimum score recommendations <u>https://www.getcollegecredit.com/exam\_fact\_sheets/</u>.

#### Additional Credit & Course Equivalency Guidance

The Technology subcommittee recommends 3 credits be awarded for a General Education Computer Science course.

#### Ethics in Technology

This examination covers topics including: Cyberspace and Privacy, Domestic and International Security, Legal Issues in Cyberspace, Technological Innovation and Ethics, Professional Ethics.

#### Minimum Score

Credit will be awarded for a score of 400 or higher.

#### Rationale

The minimum score standard is in line with the American Council on Education's minimum score recommendations <u>https://www.getcollegecredit.com/exam\_fact\_sheets/</u>.

#### Additional Credit & Course Equivalency Guidance

The Technology subcommittee recommends awarding a course or credit equivalent to an introductory course in Ethics in Technology or Computer Ethics or other similar coursework.





# Fundamentals of Cybersecurity

This exam covers topics such as disaster recovery, operational and network security, authentication, authorization, access controls, application and systems security.

#### Minimum Score

Credit will be awarded for a score of 400 or higher.

#### Rationale

The minimum score standard is in line with the American Council on Education's minimum score recommendations <u>https://www.getcollegecredit.com/exam\_fact\_sheets/</u>.

# Additional Credit & Course Equivalency Guidance

The Technology subcommittee recommends awarding a course or credit equivalent to an introductory course in Digital Security; If school does not have such course, credit should be awarded based on student's selected program, program structure, and best interests of the student at the discretion of the awarding institution, as an elective.

# Management Information Systems

The exam tests the knowledge of telecommunications; network security; systems analysis and design; business decision making; knowledge management; data warehousing; and data mining. *Minimum Score* 

Credit will be awarded for a score of 400 or higher.

#### Rationale

The minimum score standard is in line with the American Council on Education's minimum score recommendations <u>https://www.getcollegecredit.com/exam\_fact\_sheets/</u>.

#### Additional Credit & Course Equivalency Guidance

The Technology subcommittee recommends awarding a course or credit equivalent to an introductory course in Management Information Systems or Business Information Systems or a Computer Science elective.

# **BUSINESS ETHICS AND SOCIETY**

This exam covers topics such business ethics, corporations, social responsibilities, regulation and employer-employee relations.

#### Minimum Score

Credit will be awarded for a score of 400 or higher.

#### Rationale

The minimum score standard is in line with the American Council on Education's minimum score recommendations <a href="https://www.getcollegecredit.com/exam\_fact\_sheets/">https://www.getcollegecredit.com/exam\_fact\_sheets/</a>.

#### Additional Credit & Course Equivalency Guidance

The recommendation is for 3 credits to be applied as a Business elective.

#### **BUSINESS MATHEMATICS**

This exam covers topics such as number sense, algebraic concepts, statistics, and business applications.

#### Minimum Score

Credit will be awarded for a score of 400 or higher.

#### Rationale

The minimum score standard is in line with the American Council on Education's minimum score recommendations <u>https://www.getcollegecredit.com/exam\_fact\_sheets/</u>.





#### Additional Credit & Course Equivalency Guidance

The recommended equivalency is a Business Mathematics course.

# HUMAN RESOURCE MANAGEMENT

This exam is designed to evaluate whether candidates possess the knowledge and understanding that would be gained by taking a lower level college course in human resource management which includes the following content: overview of the human resource management field; human resource planning, staffing, training and development; performance appraisals; compensation issues; safety and security issues; employment law; and labor relations.

#### Minimum Score

Credit will be awarded for a score of 400 or higher.

#### Rationale

The minimum score standard is in line with the American Council on Education's minimum score recommendations <u>https://www.getcollegecredit.com/exam\_fact\_sheets/</u>.

#### Additional Credit & Course Equivalency Guidance

The recommended equivalency is a Human Resource Management course. One member of the subcommittee, however, noted that because of accreditation limitations regarding the transfer of upper division credits and because this DSST exam is categorized as lower level baccalaureate, it should count only as free elective credit.

# INTRODUCTION TO BUSINESS

This exam covers topics including economic issues; international business; government and business; business ownership; entrepreneurship and franchise; management process; human resource management; production and operations; marketing management; financial management; risk management and insurance; and management and information systems.

#### Minimum Score

Credit will be awarded for a score of 400 or higher.

#### Rationale

The minimum score standard is in line with the American Council on Education's minimum score recommendations : https://www.getcollegecredit.com/exam\_fact\_sheets/.

#### Additional Credit & Course Equivalency Guidance

The recommended equivalency is an Introduction to Business course. If no such course exists, then 3 credits can be applied as a Business or Management elective.

#### MONEY AND BANKING

The exam tests the knowledge of the role and kinds of money; commercial banks and other financial intermediaries; central banking and the Federal Reserve System; money and macroeconomics; U.S. monetary policy; and the international monetary system.

#### Minimum Score

Credit will be awarded for a score of 400 or higher.

#### Rationale

The minimum score standard is in line with the American Council on Education's minimum score recommendations <a href="https://www.getcollegecredit.com/exam\_fact\_sheets/">https://www.getcollegecredit.com/exam\_fact\_sheets/</a>.

#### Additional Credit & Course Equivalency Guidance

Recommended equivalency is a Money and Banking course. If no such course exists or if a particular school determines that the exam does not include enough mathematical rigor to be considered equivalent to its Money and Banking course, then 3 credits should be applied as a Business or Economics elective.





# PERSONAL FINANCE

This exam tests the ability to understand credit and debt; major purchases; taxes; insurance; investments; and retirement and estate planning.

#### Minimum Score

Credit will be awarded for a score of 400 or higher.

#### Rationale

The minimum score standard is in line with the American Council on Education's minimum score recommendations https://www.getcollegecredit.com/exam fact sheets/.

#### Additional Credit & Course Equivalency Guidance

Recommended equivalency is a Personal Finance course. If no such course exists, then 3 credits should be applied as a Business elective.

#### PRINCIPLES OF FINANCE

This exam covers topics such as financial statements and planning, time value of money, working capital management, cost of capital, capital budgeting, etc.

#### Minimum Score

Credit will be awarded for a score of 400 or higher.

#### Rationale

The minimum score standard is in line with the American Council on Education's minimum score recommendations https://www.getcollegecredit.com/exam fact sheets/.

#### Additional Credit & Course Equivalency Guidance

Recommended equivalency is either a Principles of Finance course or an Introduction to Finance course. One member of the subcommittee, however, noted that because of accreditation limitations regarding the transfer of upper division credits and because this DSST exam is categorized as lower level baccalaureate, it should count only as free elective credit.

#### PRINCIPLES OF SUPERVISION

This exam tests the knowledge of the roles and responsibilities of the supervisor; planning, organization and staffing; directing at the supervisory level; legal issues; stress management; union environments; and quality concerns.

#### Minimum Score

Credit will be awarded for a score of 400 or higher.

#### Rationale

The minimum score standard is in line with the American Council on Education's minimum score recommendations https://www.getcollegecredit.com/exam\_fact\_sheets/.

#### Additional Credit & Course Equivalency Guidance

Recommended equivalency is a Supervision course. If no such course exists, then 3 credits can be applied as a Business or Management elective.

# International Baccalaureate (IB) Exams

#### ECONOMICS HL

The economics course emphasizes the economic theories of microeconomics, which deal with economic variables affecting individuals, firms and markets, and the economic theories of macroeconomics, which deal with economic variables affecting countries, governments and societies. These economic theories are not to be studied in a vacuum-rather, they are to be applied to real-world issues. Prominent among these issues are fluctuations in economic activity, international trade, economic development and environmental sustainability.

# Minimum Score





Credit will be awarded for a score of 4 or higher.

#### Rationale

The minimum score standard was guided by the credit offerings at 4-year and 2-year institutions and state policies listed on IBO's website (<u>https://blogs.ibo.org/blog/2018/05/05/getting-ib-credit-at-university/</u>).

# Additional Credit & Course Equivalency Guidance

Some schools may choose to award course and credits equivalent to both Macroeconomics and Microeconomics courses (six credits total). Others, after departmental review, may not believe the course includes enough microeconomic content to warrant granting credit for a Principles of Microeconomics course. The recommendation is that this course as well as other IB courses be reviewed on a case-by-case basis by faculty and departments in order to determine appropriate course and credit equivalency.

# **BUSINESS MANAGEMENT HL**

The business management course is designed to develop students' knowledge and understanding of business management theories, as well as their ability to apply a range of tools and techniques. Students learn to analyze, discuss and evaluate business activities at local, national and international levels. The course covers a range of organizations from all sectors, as well as the socio-cultural and economic contexts in which those organizations operate.

#### Minimum Score

A minimum score of 4 on the higher-level exam should be accepted.

#### Rationale

The minimum score standard was guided by the credit offerings at 4-year and 2-year institutions and state policies listed on IBO's website (<u>https://blogs.ibo.org/blog/2018/05/05/getting-ib-credit-at-university/</u>).

#### Additional Credit & Course Equivalency Guidance

Recommended equivalency is a Management Principles course or credits can be applied as a Business or Management elective. However, as was noted with the IB Economics course, the recommendation is that this course be reviewed on a case-by-case basis by faculty and departments in order to determine appropriate course and credit equivalency.

# COMPUTER SCIENCE HL

The IB Computer Science Higher Level course requires an understanding of the fundamental concepts of computational thinking as well as knowledge of how computers and other digital devices operate. The course, underpinned by conceptual thinking, draws on a wide spectrum of knowledge, and enables and empowers innovation, exploration and the acquisition of further knowledge. Students study how computer science interacts with and influences cultures, society and how individuals and societies behave, and the ethical issues involved.

#### Minimum Score

Credit will be awarded for a score of 5 or higher.

# Rationale

This course covers material equivalent to a college-level computer science I class.

#### Additional Credit & Course Equivalency Guidance

The Technology subcommittee recommends awarding credit for a computer science course, but not necessarily Computer Science I due to the generic nature of the programming language. Some schools teaching specific languages may opt to give general computer science credit as this course may not prepare the student for a second course in a specific computer programming language.

# **IB INFORMATION TECHNOLOGY IN A GLOBAL SOCIETY HL**

The IB Information Technology in a Global Society Higher Level course is the study and evaluation of the impacts of information technology (IT) on individuals and society. It explores the advantages and disadvantages of the access and use of digitized information at the local and global level. ITGS provides a framework for the student to make informed judgments and decisions about the use of IT within social contexts.





# Minimum Score

Credit will be awarded for a score of 5 or higher.

# Rationale

This course covers material similar to introductory information technology course.

### Additional Credit & Course Equivalency Guidance

The Technology subcommittee recommends awarding credit equivalent to an introductory information technology course.