

State of Illinois Model Programs of Study Guide: **Finance and Business Services**

August 2021



Funding for this project was provided through a Grant Agreement from the Illinois Community College Board, utilizing Perkins Leadership funding.



About ICCB

In 1965, the Illinois General Assembly established the Illinois Community College Board to create a system of public community colleges that would be within easy reach of every resident. Today, the Illinois Community College System covers the entire state with 48 colleges and one multi-community college center in 39 community college districts. Community colleges serve nearly one million Illinois residents each year in credit and noncredit courses and many more through their public service programs.

Illinois' community colleges meet both local and statewide needs for education and workforce development through high-quality, affordable, accessible, and cost-effective programs and services. Learn more at iccb.org.



About Education Systems Center

Education Systems Center (EdSystems) is a mission-driven policy development and program implementation center based within Northern Illinois University's Division of Outreach, Engagement, and Regional Development. EdSystems' mission is to shape and strengthen education and workforce systems that prepare more young people for productive careers and lives in a global economy. EdSystems leads and manages the Illinois P-20 Council's College and Career Readiness Committee, which recently drove the development and adoption of the Postsecondary and Workforce Readiness Act (pwract.org). Learn more about EdSystems at edsystemsniu.org.

About the Model Programs of Study Guide

The Illinois Community College Board (ICCB) sponsored the development of Model Programs of Study Guides in crucial industry areas as part of the Illinois State Plan for Strengthening Career and Technical Education for the 21st Century Act (also known as the Perkins V Plan). This Guide was developed in consultation and collaboration with the Illinois State Board of Education (ISBE) through a process led and facilitated by Education Systems Center at NIU (EdSystems). As further detailed in this Guide, the process involved extensive research into labor market information and credential programs, and dialogue across secondary, postsecondary, and employer stakeholders.

The primary purposes and goals for the Model Programs of Study are to:

1. **Provide guidance and exemplars** for local programs to adopt or customize as they develop programs of study for approval as part of the Perkins V Plan.
2. **Establish a framework** for State agencies to develop and implement program supports.
3. **Identify priority dual credit courses** that are foundational to the industry area and well-situated for statewide scaling and articulation.
4. **Define the competencies** that should be sequenced across a program of study course sequence to prepare students for the future of work in that industry area.
5. **Identify entry points** for employers to support coursework and related experiences.

Model Programs of Study supplement and complement other State of Illinois career and technical education and career pathway resources, including the [ISBE Career Guide](#), [State of Illinois Career Pathways Dictionary](#), [Career Development Experience Toolkit](#), [Postsecondary and Workforce Readiness Act Recommended Technical and Essential Employability Competencies](#), [State of Illinois Workforce Development Strategic Plan](#), [Workforce Education Strategic Plan](#), and related state and regional data resources. School districts, community colleges, and their partners are encouraged to use this Guide, state resources, and local program and course information to develop materials for student and family outreach.

The full Model Programs of Study for Finance and Business Services, depicted graphically on pp. 4 – 5, can be used as a reference in local planning processes. The Guide then presents and describes in detail each component of the sequence, including descriptions of the underlying research, analysis, and Advisory Committee input leading to each component:

- I. Background and Process for Developing Model Programs of Study ([pp. 6 – 7](#))
- II. Priority Occupations and Promising Credentials in Finance and Business Services ([pp. 8 – 10](#))
 - a. Promising Credential Program Categories ([pp. 8 – 9](#))
 - b. High-Priority Occupations ([pp. 9 – 10](#))
 - c. Levels of Education Needed ([p. 10](#))
- III. Programs of Study Sequence Description ([pp. 11 – 15](#))
 - a. High School Career-Focused Instructional Sequence and Related Work-Based Learning ([pp. 11 – 14](#))
 - b. Recommended High School General Education Courses ([pp. 14 – 15](#))
 - c. Recommended First Year Postsecondary Courses ([p. 15](#))
- IV. Strategic Dual Credit Courses – Competency Descriptions ([pp. 16 – 17](#))
 - a. Entrepreneurship ([p. 16](#))
 - b. Intro to Business ([p. 17](#))

Appendix A includes the PWR Act Recommended Technical Competencies for Finance and Business Services and the recommended Essential Employability Competencies. Appendix B includes the Advisory Committee membership.

Model Programs of Study Guide: Finance and Business Services

ORIENTATION / INTRODUCTION Grades 9-10

SKILL DEVELOPMENT Grades 10-12

CAPSTONE / ADVANCED Grades 12



POSTSECONDARY COURSES + Recommended 1st Year

CAREER FOCUSED COURSES

Business, Finance, & Accounting

Management & Marketing

<p>Intro to Business & Computer Applications for Business</p>	<p>Entrepreneurship or Intro to Accounting</p>	<p>Financial Accounting</p>	<p>Managerial Accounting Ethics Continue AA/AAS Sequence</p>
		<p>Intro to Management or Intro to Marketing or Business Law</p>	<p>Financial Accounting Ethics Continue AA/AAS Sequence</p>

Courses and Work-Based Learning Address the PWR Act Recommended Technical and Essential Employability Competencies

WORK-BASED LEARNING

<p>Career Exploration (2) * Team-Based Challenge *</p>	<p>Team-Based Challenge * Career Development Experience or Youth Apprenticeship</p>	<p>Team-Based Challenge Career Development Experience or Apprenticeship</p>
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* May be offered through Career and Technical Student Organizations (CTSOs) including Business Professionals of America (BPA), Future Business Leaders of America (FBLA), Illinois DECA, Inc., and SkillsUSA Illinois. Programs like "Incubatoredu" and "The CEO" are examples of Team-Based Challenges embedded in courses.

SCIENCE

SOCIAL SCIENCE

MATH

Business, Finance, & Accounting

Management & Marketing

ENGLISH

<p>Science Sequence</p>	<p>Science Sequence</p>	<p>Science Sequence</p>	<p>Science Sequence</p>
<p>Social Science Sequence</p>	<p>Social Science Sequence</p>	<p>Microeconomics &/or Macroeconomics</p>	<p>Microeconomics & Macroeconomics or Psychology</p>
<p>Algebra/Geometry</p>	<p>Algebra 2/Precalculus</p>	<p>College Algebra or Calculus or Statistics</p>	<p>Calculus & Statistics</p>
<p>Algebra/Geometry</p>	<p>Geometry/Algebra 2</p>	<p>Transitional Math: STEM or Transitional Math: Quantitive Literacy Statistics</p>	<p>College Algebra & Statistics</p>
<p>English Sequence</p>	<p>English Sequence</p>	<p>Transitional English or English Composition</p>	<p>English Composition Business Communications Oral Communication</p>

AP or Dual Credit

Dual Credit Course

Dual Credit Course Affiliated With IAI Code

Course or Program Prepares for Industry Credential

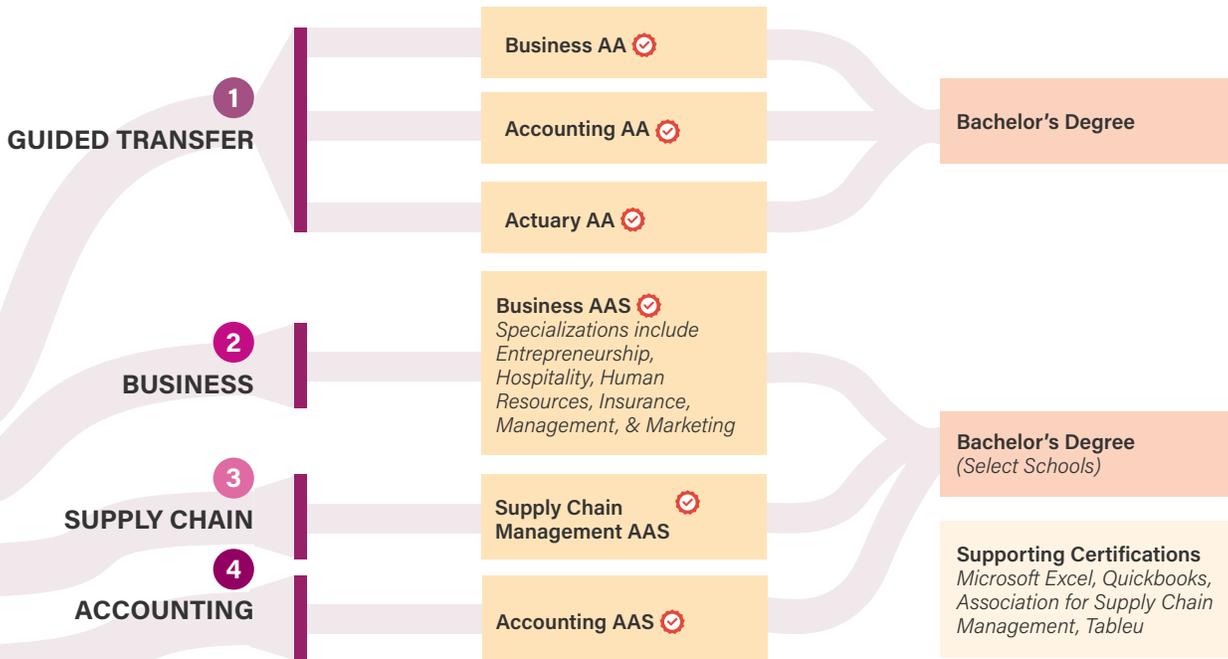
Postsecondary Course Affiliated with IAI Code

College and Career Pathway Endorsement Earned

If courses in this column were accomplished through early college credit, students should take the next required course in the sequence or, if none, additional AAS or Major Courses



POSTSECONDARY OPTIONS



SELECTED OCCUPATIONS, WAGES, & JOB GROWTH

Program	Typical Job	Near or Above Living Wage Threshold for 1 Adult + 1 Child ¹	Median Hourly Wage ²	Growth in IL: Annual Job Openings ²	Growth in IL: % Change Over 10 years ²	Stackable?
1 Guided Transfer	Accountants and Auditors	Y	\$33.89	5,510	8%	Typically Stacks to Required Bachelor's Degree
	Actuary	Y	\$49.34	140	23%	
	Business Operations Specialist	Y	\$36.81	5,011	2%	
	Financial and Investment Analyst	Y	\$39.29	1,310	7%	
	Human Resource Specialist	Y	\$28.79	2,230	6%	
	Market Research Analysts and Marketing Specialists	Y	\$29.15	2,960	22%	
2 Business	First-Line Supervisor of Office & Administrative Support Workers	Y	\$28.30	4,450	0%	Typically Stacks to Related Bachelor's Program at Select IL Universities or with Additional Coursework
	First-Line Supervisor of Non-Retail Sales Workers	Y	\$34.04	1,070	3%	
	Human Resource Assistant	N	\$19.49	380	-4%	
3 Supply Chain	Transportation, Storage, and Distribution Managers	Y	\$44.79	720	7%	Typically Stacks to Related Bachelor's Program at Select IL Universities or with Additional Coursework
	Production, Planning, Expediting Clerks	Y	\$23.01	1,450	6%	
4 Accounting	Payroll & Timekeeping Clerk	Y	\$24.18	500	-3%	Typically Stacks to Related Bachelor's Program at Select IL Universities or with Additional Coursework
	Bookkeeping, Accounting, Auditing Clerks	Y	\$20.17	6,170	-3%	

1. Living wage calculations are based on: Glasseier, Amy K. Living Wage Calculator. 2020. Massachusetts Institute of Technology. livingwage.mit.edu. As of January 2021 for the state of Illinois, the "Living Wage" for 1 Adult + 1 Child equaled \$26.27/hour and "near," defined as 85% of that statewide living wage, was \$22.33/hour. In March of 2021, the Living Wage calculator updated its calculations for Illinois, but information presented in this guide reflects the wage levels as of January 2021, when the project team conducted its analysis.

2. U.S. Department of Labor, CareerOnestop (careeronestop.org/explorecareers), Illinois Department of Employment Security Virtual Labor Market Information (www2.illinois.gov/ides)



Background and Process for Developing Model Programs of Study

Programs of study are a coordinated, non-duplicative sequence of academic and technical content at the secondary and postsecondary levels that culminate in a recognized postsecondary credential. In Illinois, Perkins V programs of study are aligned with broader State policy goals to promote college and career readiness, including the State of Illinois' ESSA plan (in particular, the College and Career Readiness Indicator), the College and Career Pathway Endorsement framework and other elements of the Postsecondary and Workforce Readiness Act, the Dual Credit Quality Act, the Illinois WIOA Unified State Plan, and the State's Career Pathways Dictionary.

Process for Development

Each Model Programs of Study was developed using a data-driven, backward-mapping approach that extended from the areas of job growth down through to the high school course sequence. The specific steps in this analysis included:

1. **Identifying high-priority occupations** in the industry sector that are high-skill, high-wage, and in-demand based on federal Department of Labor data for the State of Illinois.
2. **Identifying promising postsecondary credentials** (degrees or certificates) that are broadly accessible through the Illinois community college system and lead to high-priority occupations.
3. **Mapping the stackable degrees and certificates** that progress to promising credentials.
4. **Identifying strategic community college courses** that appear across the maximum number of promising credentials, provide a broad foundation of knowledge essential to that industry sector, and are feasible for dual credit delivery.
5. **Mapping a course sequence from secondary through the first year of postsecondary** that incorporates strategic early college credit (including at least six early college credits in the career-focused course sequence) and considers industry trends and innovations in career and technical education.
6. **Defining related technical competencies** for the foundational program of study courses that can be utilized to guide course development and postsecondary articulation.



Using Department of Labor¹ data and the MIT Living Wage Calculator² for the State of Illinois as a reference, the project team identified “high-priority occupations” as jobs with a positive growth outlook and median salaries near or greater than the living wage for one adult and one child.³ Thus, a “promising credential” is a degree or college certification that immediately prepares an individual for entry into a high-priority occupation or is a stackable credential for a high-priority occupation.

After identifying the promising credentials in each industry area, the project team analyzed community college programs leading to these credentials from a sampling of colleges from across Illinois, representing a mix of urban, suburban, and rural institutions.⁴ EdSystems analyzed and categorized all of the career-focused and general education courses across the full sampling of the promising credential programs to determine which of these courses:

- Are most common across all programs in the sample,
- Are broadly accessible for dual credit opportunities considering prerequisites and teacher credentialing requirements, and
- Are included within the Illinois Articulation Initiative.

This analysis and categorization process led to a recommended set of “strategic” career-focused and general education courses that provide a critical foundation for the program of study sequence.

Following this internal analysis, EdSystems and ICCB convened a stakeholder Advisory Committee of secondary, postsecondary, and private sector representatives to vet the recommendations and provide expertise and guidance on the development of the Model Programs of Study (see Advisory Committee listing in Appendix B). Over multiple webinars and feedback sessions across four months, the Advisory Committee and smaller working groups provided information about industry trends that may not be reflected in the Department of Labor data, credentials and degrees that are emerging as most promising in the field, on-the-ground implementation considerations for secondary and postsecondary programs, and future of work implications for the sector. The Advisory Committee further informed important decision-points in the Model Programs of Study process, including adjusting the Model of Programs of Study course map and promising credential endpoints, selecting strategic early college credit courses, and identifying key competencies for target courses in the Model Programs of Study currently lacking current statewide articulation. The culmination of EdSystems’ analysis and the input of the Advisory Committee is reflected in the draft Model Programs of Study and course competencies included within this Guide.

¹ U.S. Department of Labor, Career Onestop: careeronestop.org/ExploreCareers/explore-careers.aspx, Illinois Department of Employment Security Virtual Labor Market Information, www2.illinois.gov/ides

² Glasmeier, Amy K. Living Wage Calculator. 2020. Massachusetts Institute of Technology. livingwage.mit.edu

³ The “Living Wage” as of January 2021 for 1 Adult + 1 Child, which equaled \$26.27/hour for the state of Illinois. “Near” is defined as 85% of that statewide living wage, which is \$22.33/hour. In March of 2021, the Living Wage calculator updated its calculations for Illinois, but information presented in this guide reflects the wage levels as of January 2021, when the project team conducted its analysis.

⁴ For the analysis of Finance and Business Services, the community colleges surveyed were City Colleges of Chicago, Elgin Community College, Illinois Central College, Rock Valley College, Harper College

Priority Occupations and Promising Credentials in Finance and Business Services

Finance, accounting, and business occupations are a significant factor in what makes Illinois a thriving worldwide economy. According to the Illinois Department of Commerce and Economic Opportunity, Illinois is a global headquarters hub with 37 Fortune 500 companies and 29 S&P 500 companies. Illinois is also home to a robust finance industry with the Chicago Board of Trade, Chicago Stock Exchange and the Chicago Mercantile Exchange, the world's largest futures exchange, residing in our state. In the business areas of supply chain and logistics, multimodal transportation and logistics have long been areas of strength for Illinois. The state ranks third in the country by value of freight shipments and Illinois boasts the largest rail hub in the country, making this industry sector essential to the state's economy.⁵

Promising Credential Program Categories

The Advisory Committee's analysis of promising credentials in the finance, business, and accounting sector tied to Illinois community colleges led to an identification of four overarching categories and additional sub-specializations:

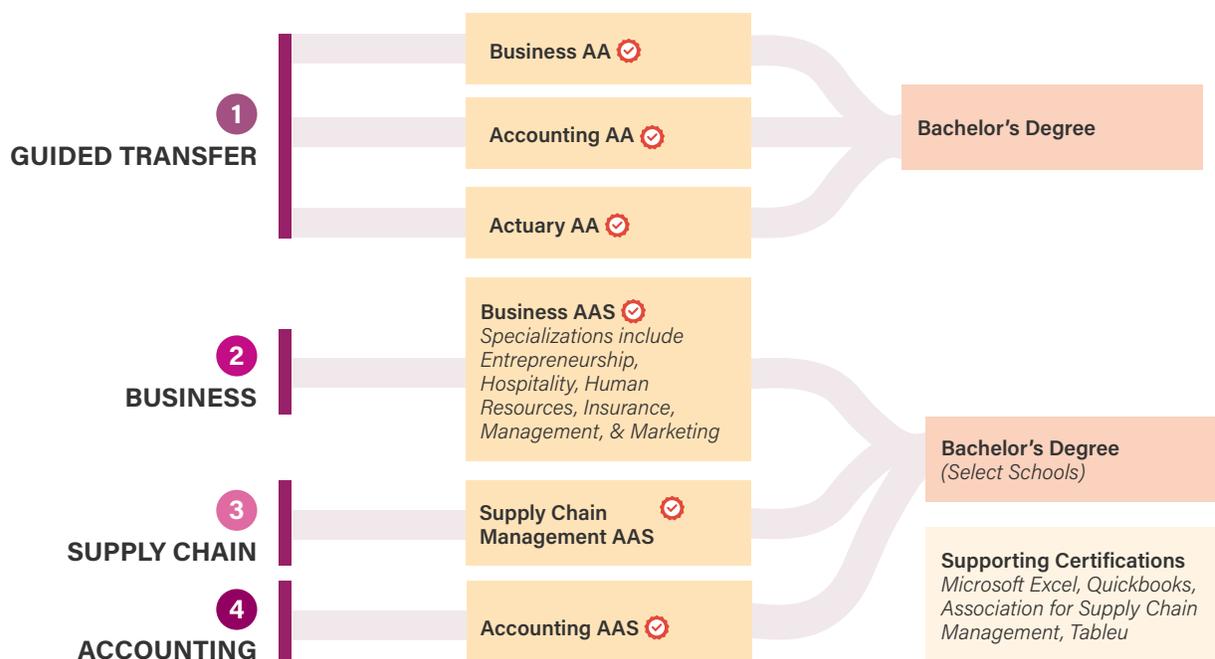
1. **Guided transfer** programs are commonly associated with occupations requiring bachelor's degree for entry-level employment, such as an Accountant, Auditor, Actuary, Financial and Investment Analyst, Human

Resource Specialist, and Marketing Researcher or Specialist. These associate degree programs easily transfer to Bachelor of Arts or Bachelor of Science degrees and place into occupations that can be on-ramps to a professional school degree.

2. Applied **Business** degrees that lead to entry-level positions and escalate to roles such as Human Resource Assistants, as well as First Line Supervisors of Office and Administrative Workers or First Line Supervisors of Non-Retail Sales Workers. These credentials, typically an Associate of Applied Science (AAS), come with additional specializations in Marketing, Management, Entrepreneurship, Hospitality, Human Resources, Insurance, etc., and can build towards bachelor's degree programs at select Illinois universities.
3. **Supply Chain** credentials that prepare students for roles in distribution centers including Managerial positions, and Production Planning and Expediting Clerks. These degrees may traditionally be considered part of the Transportation, Distribution, and Logistics industry sector, but because of their obvious overlap with business operations and guidance by the Advisory Committee, they were included in this guide.



POSTSECONDARY OPTIONS



4. Applied **Accounting** credentials that prepare students for various clerk level roles such as Bookkeeper and Accounting, Payroll, Timekeeping, and Auditing clerk. The AAS degrees associated with these roles also have a significant degree of transferability to bachelor's degrees in Accounting and Auditing at select Illinois universities.

The Advisory Committee also analyzed the diverse and growing set of certifications that indicate skill or mastery in certain business platforms or software. These include third-party certifications in Microsoft Excel, QuickBooks, Tableau, and the Association for Supply Chain Management, to name a few. The Advisory Committee decided that although these certifications are valuable in the industry, earning the certification is not more valuable than the acquisition of the aforementioned associate and bachelor's degrees because one could not typically acquire employment in a high-priority occupation with these certifications alone. Moreover, the software skills analogous with the various certifications are commonly integrated into existing degree coursework and projects.

Lastly, employers will nevertheless test for mastery or skill in the specified software before offering employment. Therefore, those certifications are included in the guide as "Supporting Certifications" that help identify skills necessary in finance, business and accounting, but are not promising credentials in and of themselves.

High-Priority Occupations

The high-priority occupations associated with each of these areas are identified in the table entitled Select Occupations, Wages, and Job Growth. The occupations affiliated with guided transfer pathways typically meet the living wage and job growth criterion described in Section I. There are numerous other roles that could be listed in the guided transfer section, but the sample provided were selected because they are typically entry level (explained in the next section) and offer a representation of the breadth of the finance and business services sector.

For the roles in the applied Accounting and Business pathways with associated specializations, some of the



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2. U.S. Department of Labor, CareerOnestop (careeronestop.org/explorecareers), Illinois Department of Employment Security Virtual Labor Market Information (www2.illinois.gov/ides)



roles listed in the selected occupations chart fall below the living wage thresholds or job growth criteria described in Section I. These roles, such as Human Resource Assistant as well as Bookkeeping, Accounting and Auditing Clerk, are nevertheless included because the AAS Degrees associated with these roles also have a significant level of transferability to bachelor's degrees in business and accounting and the roles associated with those degrees. Additionally, while higher-earning roles typically require the acquisition of bachelor's degrees, AAS degrees in business and accounting are still relevant in key regions of the state and in small business environments that may have varying requirements for human capital. It must also be noted that other roles in hospitality and first-line supervision of retail workers were excluded from this analysis because they do not meet the living wage threshold of Section I *and* are somewhat redundant with the higher-earning roles already listed in the occupations chart.

For Supply Chain programs, the roles listed meet the required job growth and wage requirements of Section I. These roles—such as Production, Planning, Expediting Clerks and Transportation, Storage, and Distribution Managers—have significant overlap in the broader business sector.

Levels of Education Needed

The levels of education needed for the various pathways in the Model Programs of Study are somewhat varied, but

all the high-priority occupations identified typically require or benefit from an associate degree or higher. While some individuals might work in high-priority occupations in accounting, supply chain, general business or front-line supervision of employees without an associate degree, pathways should align to current and future labor market expectations of an associate degree or higher.

As a result, the Model Programs of Study recommends an Associate of Arts (AA), Associate of Applied Science (AAS), or higher degree for as many program pathways as possible. Entry-level positions in high-earning occupations such as Auditor or Financial and Investment Analyst will typically require a bachelor's degree plus benefit from attainment of a master's degree. Those credentials are therefore depicted in the Model Programs of Study as a guided transfer pathway from an Associate of Arts to a bachelor's degree (includes Bachelor of Science and Bachelor of Arts), but the specific bachelor's degree is not specified. This is because one can have a completely unrelated bachelor's degree, like a liberal arts degree, and still succeed in business if one has the rights skills or choose to enter the sector through a professional degree.

⁵ Illinois Department of Commerce and Economic Opportunity, retrieved www2.illinois.gov/dceo/whyillinois/Pages/BusinessMinded.aspx

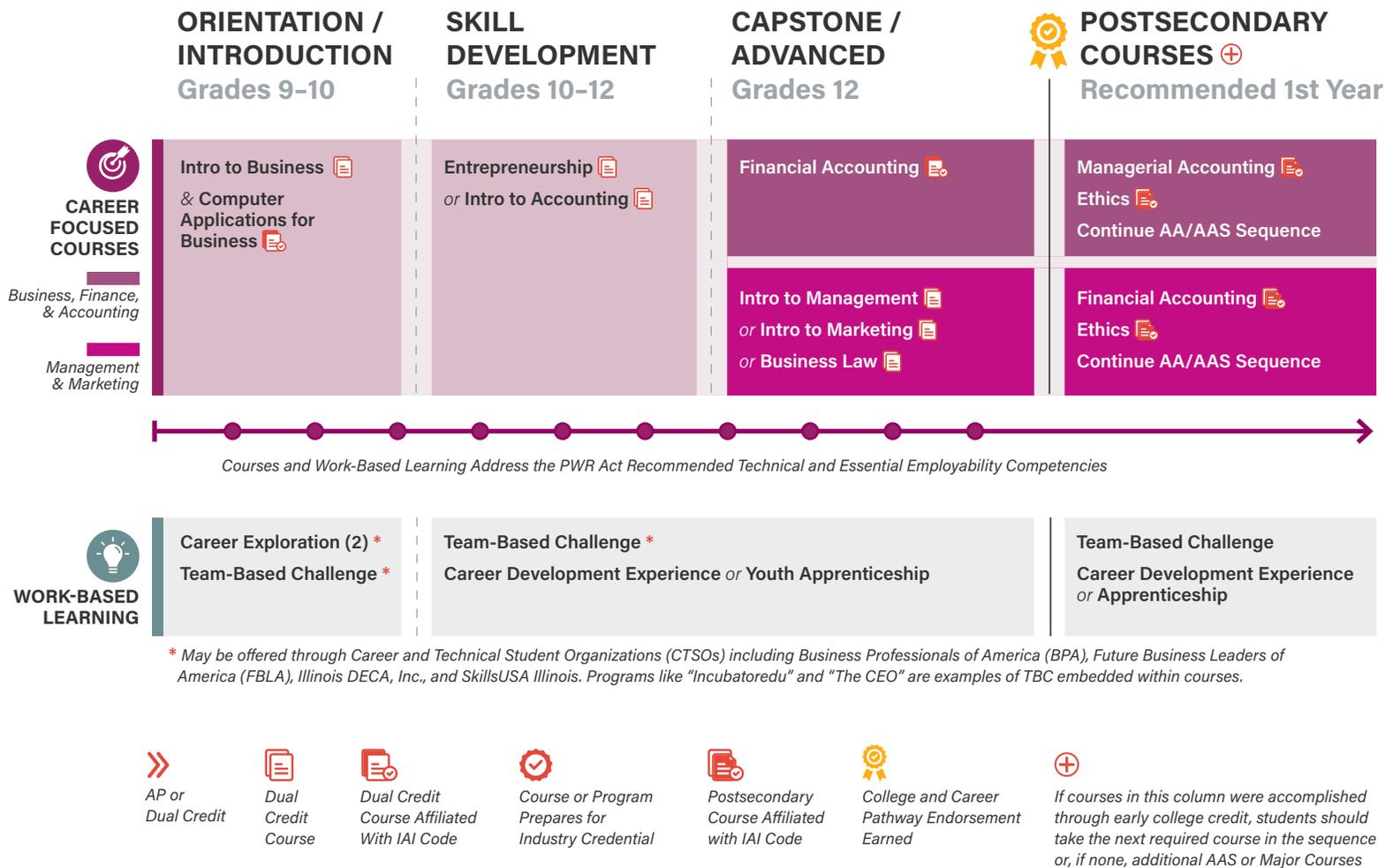
Programs of Study Sequence Description

Generally, students in a Program of Study should start a career-focused instructional sequence with an orientation course in 9th or 10th grade, with students engaging in career awareness and exploration in the middle school grades if possible. With this early start, students will have more openings in their schedule to complete Skill Development and Capstone options across finance and business, obtain significant early college credits, earn valuable industry experiences, and potentially acquire the College and Career Pathways Endorsement before high school graduation.

As school districts and their community college partners develop the sequence, they should ensure that the high school coursework enables all students in the Finance and Business Services Program of Study to attain the State's recommended Essential Employability and Technical Competencies for Finance and Business Services described in Appendix A.1.

High School Career-Focused Instructional Sequence and Related Work-Based Learning Overview

The Model Programs of Study for Finance and Business Services begins by introducing students to the broad range of careers in the field that are applicable to all related ISBE CIP Codes (52.0201 to 51.1401) and culminates with a set of course specializations that are strategic for postsecondary credentials in finance, business, supply chain and accounting. Every step of the way (Orientation, Skill Development, and Capstone experience), the Model Program of Study in Finance and Business Services offers multiple opportunities for students to earn early college credits because of the vast array of business courses offered at most postsecondary institutions and their applicability to multiple promising credentials.



Orientation

At the secondary level, ISBE has two Career and Technical Education (CTE) courses that introduce students to finance and business services and have significant overlap with the content that typically is required at the postsecondary level: Business Technology and Concepts and Introductory Business. Both courses fulfill the CTE funding requirements for an orientation or introductory course and have similar course descriptions to Intro to Business courses at most community colleges. More importantly, the Intro to Business course is required in most, if not all, promising credentials at the postsecondary level. Intro to Business is thus recommended by the Advisory Committee for detailed articulation in the “Competency Descriptions” section of this guide. Additionally, Intro to Business typically has no student prerequisites or eligibility requirements, making this course broadly accessible to students as a dual credit or as an online/remote dual enroll enrollment opportunity. Because of its frequency at the postsecondary level, this guide recommends secondary students start in this program of study with a CTE orientation/introductory course that can also be counted for dual credit with the Intro to Business course typically offered at many postsecondary partners.

Having completed Intro to Business, the Advisory Committee also recommends students take for dual credit a course titled “Computer Applications for Business” which is offered at most community colleges and is frequently transferable through an Illinois Articulation Initiative (IAI) code for those interested in degrees in business and information technology. Computer Applications for

Business typically has no student prerequisites and has teacher credentialing requirements that can normally be met by secondary teachers. Moreover, the Advisory Committee emphasized the need for students in finance and business to have a strong foundation in workplace software and technology, such as Microsoft Excel or spreadsheets, which is the emphasis of this course.

Skill Development

The Skill Development course recommendations in the Model Programs of Study are Entrepreneurship and Intro to Management, offered as early college classes. Entrepreneurship is a common community college business course and specialization that introduces students to the mechanics of starting a business and has a significant overlap with popular secondary curricula from third-party organizations such as INCubatoredu and The CEO Program. Several secondary districts representatives in the Advisory Committee are familiar with these entrepreneurship programs and emphasized how successful they are at attracting students into the business pathway and embedding project-based and professional learning. Implementing a secondary curriculum such as those mentioned and linking it to college credit provides an invaluable skill development opportunity for students in this pathway. Even if dual credit is not feasible due to difficulties in teacher credentialing, offering an entrepreneurship course or experience is still recommended and fulfills one of the requirements of the CTE course matrices for Finance and Business. It is for this reason that the Advisory Committee included a set of Entrepreneurship Competencies in a later section of this guide.



If a secondary or postsecondary institution does not offer entrepreneurship programs or coursework in a region, the Model Program of Study Advisory Committee recommends students take Intro to Accounting as a dual credit course. Similar to Entrepreneurship, even if dual credit cannot be offered due to difficulties in teacher credentialing, the ISBE CTE course equivalent, Accounting 1, provides valuable, foundational instruction and fulfills the requirements for the CTE course matrix. This course commonly has fewer prerequisites and placement requirements compared with other business courses, with the college course Intro to Business typically being the immediate gateway course. Thus, Intro to Business followed by Entrepreneurship or Intro to Accounting provides a strong, accessible dual credit sequence.

Capstone

At the Capstone level, the Advisory Committee strongly recommends the Financial Accounting course if a student has the math eligibility for it. Not to be confused with Intro to Accounting mentioned in the skill development section, Financial Accounting is by far the most important business course offered at any postsecondary institution. It exists in every single guided transfer or promising credential for business, accounting, and supply chain as either a requirement or elective that fulfills the related bachelor's or associate degrees. Financial Accounting is the most strategic and foundational course for the business sector; all students, not just accounting students, will eventually have to take this course at any postsecondary institution to earn their degree. This course is also universally offered as an IAI transferable course at all Illinois postsecondary institutions. Thus, students who take and pass this course

	ORIENTATION / INTRODUCTION Grades 9–10	SKILL DEVELOPMENT Grades 10–12	CAPSTONE / ADVANCED Grades 12	POSTSECONDARY COURSES  Recommended 1st Year
 SCIENCE	Science Sequence	Biology 	Chemistry 	Biology for Science Majors  General Chemistry  Anatomy & Physiology I / II Microbiology
 SOCIAL SCIENCE	Social Science Sequence	Social Science Sequence	Psychology 	Psychology  Sociology 
 MATH	Algebra Geometry	Geometry Algebra 2 Pre-Calculus	Transitional Math: Quantitative Literacy Statistics Pre-Calculus Calculus  General Education Math 	General Education Math 
 ENGLISH	English Sequence	English Sequence	Transitional English English Composition 	English Composition  Oral Communication 
	 AP or Dual Credit	 Dual Credit Course	 Dual Credit Course Affiliated With IAI Code	 Course or Program Prepares for Industry Credential
			 Postsecondary Course Affiliated with IAI Code	 College and Career Pathway Endorsement Earned
				 If courses in this column were accomplished through early college credit, students should take the next required course in the sequence or, if none, additional AAS or Major Courses

as a capstone experience while in high school will have a significant jumpstart towards a career in Finance and Business Services. This course, however, is difficult to access for dual credit because of the teacher credentialing requirements, normally a master's degree in business or a related field. Moreover, the course has a high level of math involved in its curriculum and typically has a pre-requisite of college algebra or college-level math placement beyond college algebra. As a result, the Advisory Committee recognizes that the universe of students who could take this course would likely have already earned early college credit in Math (either as dual credit or Advanced Placement) by the end of their junior year in high school and would access Financial Accounting as a dual enrollment course with the teacher of record being college faculty. Students who take Financial Accounting as a capstone experience would be considered by the Model Program of Study to be on a Business, Finance, and Accounting track within the guide, with subtly different follow-up courses in the first year of postsecondary school.

For students unable to take Financial Accounting because of the constraints of dual credit access or math placement requirements, the Advisory Committee suggests pivoting towards a Management and Marketing emphasis in the capstone experience. This includes any combination of the following early college courses: Intro to Management, Intro to Marketing, or Business Law. All of these courses are universally offered at Illinois community colleges, have an overlap with ISBE CTE course matrices for finance and business, and are typically required among all promising AAS credentials with some opportunity for transferability. It must also be noted that most community colleges offer two business law courses that have similar course descriptions. In addition to the Business Law course, there is frequently a course named Legal Environment for Business or similar. The Advisory Committee finds both courses valuable and makes no meaningful distinction between the two for the purposes of a high school student; we have labeled the course Business Law for simplicity.

Recommended High School General Education Courses

The Model Programs of Study for Finance and Business Services identifies several critical considerations for general education coursework before graduating high school. The courses mentioned here are frequent requirements for many postsecondary promising credentials in finance and business and enhances students' opportunities for postsecondary success in addition to the career-focused

courses already delineated. The general education recommended courses are the following:

- In **science**, students should complete the state's or local district's graduation requirements for laboratory science, with no specific suggestion from the Advisory Committee. Students should seek Advanced Placement or dual credit course opportunities where possible.
- In **social science**, students prepared for college-level coursework in their senior year should enroll in a dual credit or Advanced Placement (AP) Economics course. This includes Microeconomics and/or Macroeconomics. Universally offered at all postsecondary institutions, these economics courses are as strategic and valuable for finance and business as Financial Accounting. Micro- and Macroeconomics courses are present in all promising credential categories as requirements or electives, and are universally transferable through an IAI course code. If dual credit access is challenging due to teacher credential requirements, passing an AP exam with a 3 or better gives equivalent credit at most postsecondary institutions and should be offered instead, with the AP course being typically more accessible in regard to student eligibility at the secondary level as well.
- In **math**, students engaging in the Business, Finance and Accounting Track of the career-focused coursework will need a robust math foundation to succeed in their capstone experience of Financial Accounting. As a result, the Model Program of study recommends these students culminate their secondary education with early college coursework in math. That includes College Algebra (dual credit), Calculus (AP or Dual Credit) and Statistics (AP or Dual Credit). Moreover, if any early college math courses can be taken before senior year, the better positioned the student will be to enroll in Financial Accounting.

For students progressing through the Management and Marketing track, the Model Program of study recommends students get into the highest level of math course by graduation from high school. At minimum, students should take a Transitional Math course that, upon successful completion, guarantees them college-placement placement into College



Algebra (TM: STEM) or Statistics (TM: Quantitative Literacy & Statistics).

- In **English**, students prepared for college-level coursework in their senior year should enroll in a dual credit English Composition or Advanced Placement English Language and Composition course if available. Students who are not prepared for college-level coursework should enroll in a Transitional English course that, upon successful completion, guarantees placement into the partner community college's English Composition course.

Recommended First Year Postsecondary Courses

The recommended first-year postsecondary courses in the Model build upon the knowledge and skills recommended at the Capstone level. For example, students who have already completed Financial Accounting and some college credit in math should immediately pursue an IAI course called Managerial Accounting, which builds on the requirements towards a guided transfer and almost all promising credentials in finance and business. Students who culminate their secondary coursework in the Management and Marketing track should enroll in Financial Accounting, for the reasons mentioned in the Capstone section, within the first year of postsecondary education. Having completed Financial Accounting and Managerial Accounting, students should continue the associate degree sequence and pursue the IAI course called Ethics. Ethics does not fit neatly as a career-focused or social science course, but it is a common requirement for guided transfers

and promising credentials and thus recommended by the Advisory Committee for this Model Program of Study.

In the general education course areas, students will start or continue with the required 100-level courses that are strategic for promising credentials and also transferable through the Illinois Articulation Initiative (IAI). In social science, students are likely to take Micro- and Macroeconomics and Psychology. In English/Communications, English Composition and Oral Communication or Business Communications are recommended because of their frequency in promising credentials. If the 100-level courses have been accomplished through early college credit, students will take the next required course in the subject or, if none, additional AAS or courses in their major.

With respect to math, the Advisory Committee for the Model Program of Study did want to equally emphasize competency in both College Algebra/Calculus as well as Statistics. High-priority occupations in Finance and Business Services requiring a bachelor's degree or greater will oscillate between Calculus and Statistics in terms of skill sets needed day to day, and it is supremely important that students get a foundation in data analytics as well. Within the first year of postsecondary, the Business, Finance and Accounting track should pursue both Calculus and Statistics and the Management and Marketing track should pursue both College Algebra and Statistics, with an emphasis on courses with IAI affiliation whenever possible.

Priority Dual Credit Courses: Competency Descriptions

EdSystems and ICCB convened a stakeholder Advisory Committee of secondary, postsecondary, and private sector representatives to vet the Model Program of Study recommendations. A smaller working group further convened to identify key competencies for the targeted early college courses in the Model Program of Study currently lacking current statewide articulation. In Finance and Business Services, those courses were Introduction to Business and Entrepreneurship.

INTRO TO BUSINESS <i>Key Competencies</i>	
Analysis and Decision Making	<ul style="list-style-type: none"> Student will be able to describe and model basic principles and critical thinking skills for sound business decision-making.
Business Language and Terms	<ul style="list-style-type: none"> Student will have a broad understanding of business terminology, technology and communications.
Operations, Planning, and Management	<ul style="list-style-type: none"> Students can identify and describe the functional areas of a business plan and the value proposition of a business. Students can discuss human resources management issues including employee-management issues, and motivation.
Roles and Experiences in Business	<ul style="list-style-type: none"> Students can distinguish between the various business roles within business enterprises so that students may explore robust careers, including roles in management, accounting, marketing and finance.
Communications and Marketing	<ul style="list-style-type: none"> Students can function effectively in today's diverse workplace through use of sound interpersonal skills and basic information technology, including digital communication.
Diversity in the Workplace	<ul style="list-style-type: none"> Students will understand and appreciate diversity principles and apply them in the workplace.
Ethics	<ul style="list-style-type: none"> Students can identify ethical standards in business and apply these standards in decision-making and to issues of social responsibility.
Global Enterprise and the Market System	<ul style="list-style-type: none"> Students can use a basic or rudimentary understanding of micro- and macro-economics concepts to describe how businesses operate in our modern political, social and economic environment at a local, national and international scale. Students can define small business and entrepreneurship and how they fit within the american free enterprise and economic system.
Private Ownership and Capital	<ul style="list-style-type: none"> Students can describe the different forms of legal ownership, including corporations, franchises, and other small businesses

ENTREPRENEURSHIP

Key Competencies

Business Fundamentals	<ul style="list-style-type: none"> Students will have a sufficient basic understanding of business language and concepts to analyze case studies, financial statements, marketing, management, and legal issues relating to starting a business.
Capital and Financing	<ul style="list-style-type: none"> Students will investigate financial options to test the viability of starting a business and describe the sources and methods of financing contingent on the business ownership model.
Initial Concept and Business Plan	<ul style="list-style-type: none"> Students will develop a startup concept in any business environment and construct an initial business plan for this venture.
Entrepreneurship and Society	<ul style="list-style-type: none"> Students can apply entrepreneurial concepts, practices and theories to everyday case studies and examples. Students will display the entrepreneurial skills needed for a business by describing the needed aspects of time management, team-building, and organization to set timely and measurable goals leading to project completion. Students can explain how entrepreneurs have helped shape modern society.
Market Research and Implementation Strategy	<ul style="list-style-type: none"> Students will be able to create an investigative analysis to evaluate the risks, legal implications, and feasibility of a business opportunity. Students will be able identify the appropriate business structure and ownership model necessary to start a business and describe, in detail, the essential elements and resources needed for success. Students will be able to describe and apply the iteration process to test the viability of a product or idea. Students can, using marketplace data, develop marketing and sales plans including promotional strategies.
Business Communications	<ul style="list-style-type: none"> Students will display the communication skills necessary to be able to pitch a startup idea to a target audience of experts.

APPENDIX A.1: PWR Act Recommended Technical and Essential Employability Competencies for Finance and Business Services



TOP 10 TECHNICAL COMPETENCY STATEMENTS FOR FINANCE & BUSINESS SERVICES

Cash & Capital Principles	Students can use their understanding of the nature of cash, monetary systems, and the value of money in order to recognize the risk, return, and opportunity cost associated with capital.
Technical Applications	Students can use their understanding of spreadsheets and accounting software to maintain, update, and retrieve data from records.
Project Management	Students can use their understanding of time management and organization to set timely and measurable goals leading to project completion.
Principles of Economics & Business	Students can use their understanding of micro- and macro-economics to understand how an economy functions locally and globally.
Financial Reporting	Students can use their understanding of financial statements to assess a business's financial information.
Financial Statements	Students can use their understanding of financial statements to prepare and interpret balance sheets, income statements, cash flow statements, and retained earnings.
Customer Care & Marketing	Students can use their understanding of market demands to meet the needs of a client.
Business Operations	Students can use their understanding of transaction management to perform business operations.
Principals of Customer Relationship Management	Students can use their understanding of customer communication and customer relationship management software to attract new customers and sustain existing customers.
Fundamentals of Sales	Students can use their understanding of personalized service and market demands to secure successful sales interactions.

ENTREPRENEURIAL COMPETENCIES

- **Principles of Entrepreneurship:** Students can apply their understanding of the process and characteristics of business development and promotion in order to apply strategies of innovation to personal and professional business pursuits.
- **Innovation & Invention:** Students can use their understanding of idea generation, design thinking, product and business development in order to introduce and process new and effective ideas.
- **Growth Mindset:** Students can use their understanding of learning from challenges, set-backs, and failure in order to adapt strategies and continue efforts to achieve personal goals.

APPENDIX A.2: Statewide Essential Employability and Entrepreneurial Competencies

TOP 10 CROSS-SECTOR ESSENTIAL EMPLOYABILITY COMPETENCY STATEMENTS	
Teamwork & Conflict Resolution	Students can use their understanding of working cooperatively with others to complete work assignments and achieve mutual goals.
Communication	<p>Verbal: Students can use their understanding of English grammar and public speaking, listening, and responding, convey an idea, express information, and be understood by others.</p> <p>Written: Students can use their understanding of standard business English to ensure that written work is clear, direct, courteous, and grammatically correct.</p> <p>Digital: Students can use their understanding of email, keyboarding, word processing, and digital media to convey work that is clear, direct, courteous, and grammatically correct.</p>
Problem Solving	Students can use their critical thinking skills to generate and evaluate solutions as they relate to the needs of the team, customer, and company.
Decision Making	Students can use their understanding of problem solving to implement and communicate solutions.
Critical Thinking	Students can use their understanding of logic and reasoning to analyze and address problems.
Adaptability & Flexibility	Students can use their understanding of workplace change and variety to be open to new ideas and handle ambiguity.
Initiative & Self-Drive	Students can use their understanding of goal setting and personal impact to achieve professional goals and understand personal impact.
Reliability & Accountability	Students can use their understanding of commitment, time management, and follow through to ensure that a professional team functions properly and meets collective goals.
Cultural Competence	Students can use their understanding of diversity and inclusion to communicate and work effectively across a multitude of abilities, cultures, and backgrounds.
Planning & Organizing	Students can use their understanding of time management to plan effectively and accomplish assigned tasks.

ENTREPRENEURIAL COMPETENCIES

Principles of Entrepreneurship

Students can apply their understanding of the process and characteristics of business development and promotion in order to apply strategies of innovation to personal and professional business pursuits.

Innovation & Invention

Students can use their understanding of idea generation, design thinking, product and business development in order to introduce and process new and effective ideas.

Growth Mindset

Students can use their understanding of learning from challenges, set-backs, and failure in order to adapt strategies and continue efforts to achieve personal goals.



APPENDIX B: Advisory Committee Membership

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