



STATE OF ILLINOIS

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# Model Programs of Study Guide

# Finance and Business Services

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COLLEGE & CAREER PATHWAYS



**EdSystems**  
EDUCATION SYSTEMS CENTER at  
NORTHERN ILLINOIS UNIVERSITY

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### **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](http://iccb.org).



### **About EdSystems**

Education Systems Center (EdSystems) is a mission-driven policy development and program implementation center based within Northern Illinois University. We work at the state level to create ecosystem and policy change while simultaneously working at the local level to create organizational change. This bi-directional approach allows us to align local efforts to state policy while elevating local experiences and learnings to state tables. Learn more at [edsystemsniu.org](http://edsystemsniu.org).

## Table of Contents

<b>I. About the Model Programs of Study Guide</b> .....	<b>1</b>
<b>II. Development of the Model Programs of Study</b> .....	<b>2</b>
<b>III. Priority Occupations and Promising Credentials</b> .....	<b>4</b>
Promising Credential Program Categories .....	4
DIAGRAM: Postsecondary Opportunities .....	5
TABLE: Selected Occupations, Wages, and Job Growth.....	6
High-Priority Occupations .....	7
Levels of Education Needed .....	7
Advisory Committee Considerations.....	7
<b>IV. Programs of Study Sequence Description</b> .....	<b>8</b>
DIAGRAM: Career-Focused Instructional Sequence .....	8
High School Career-Focused Instructional Sequence and Work-Based Learning.....	8
DIAGRAM: General Education Instructional Sequence.....	11
High School General Education Courses .....	11
First-Year Postsecondary Courses .....	12
<b>V. Strategic Dual Credit Courses: Competency Descriptions</b> .....	<b>13</b>
<hr/>	
<b>Appendices</b> .....	<b>15</b>
A: Technical and Essential Employability Competencies for Finance and Business Services .....	16
B: Cross-Sector Essential Employability and Entrepreneurial Competencies.....	17
C: 2021 Advisory Committee Membership .....	19
D: College and Career Pathway Endorsements Framework .....	20
E: Illinois' Work-Based Learning Continuum .....	21
F: DIAGRAM: Pathway Map .....	22

## I. About the Model Programs of Study Guide

The Illinois Community College Board (ICCB) sponsored the development of the State of Illinois 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 pathway programs to adopt or customize as they develop programs of study for approval as part of Perkins V or Illinois' College and Career Pathway Endorsements.
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 sector's program of study 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 work-based learning 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](#), [Recommended Technical and Essential Employability Competencies](#), [State of Illinois Workforce Development 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 Model Programs of Study Guide in Finance and Business Services can be used as a reference in local planning processes. The guide presents and describes in detail each component of the sequence, including descriptions of the underlying research, analysis, and Advisory Committee input. In addition to the complete guide, a [pathway map](#) depicting the diagrams of the secondary and postsecondary sequences, as well as a table of the selected occupations, wages, and job growth, is available at the end of this document or at [edsystemsniu.org/guides](https://edsystemsniu.org/guides).

## II. Development of the 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. The State of Illinois Model Programs of Study Guides are aligned with broader state policy goals to promote college and career readiness, including the state's Perkins V and ESSA plans (in particular, the College and Career Readiness Indicator), the Postsecondary and Workforce Readiness Act, the Dual Credit Quality Act, and the Illinois 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 Illinois.
2. **Identifying promising postsecondary credentials** (degrees or certificates) that are broadly accessible to and 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 broadly among promising credentials, provide a solid 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 is applicable to both Illinois secondary and postsecondary Perkins V requirements.
6. **Defining related technical competencies** for the foundational program of study courses that can be utilized to guide course development and postsecondary articulation.

Using data from the Department of Labor, Illinois Department of Employment Security, and MIT's Living Wage Calculator for the State of Illinois as a reference, the project team identified "high-priority occupations" as jobs with a positive growth outlook over the next 10 years, of high relative volume within that industry sector, and with median salaries that could sustain various family sizes within Illinois.<sup>1</sup> Occupations with median salaries higher than the living wage for 1 adult + 1 child (\$39.63/hour) are considered as having a "high" living wage potential. Occupations with median salaries only higher than the living wage of 1 adult, no children (\$22.86/hour) are considered as having a "medium" living wage

<sup>1</sup> U.S. Department of Labor, Employment and Training Administration (n.d.). "Explore Careers." CareerOneStop. Retrieved December 2023, from [careeronestop.org/explorecareers](https://careeronestop.org/explorecareers). Illinois Department of Employment Security, "Long-Term Occupational Projections 2020-2030" and "Wage Information: Occupational Employment and Wage Statistics (OEWS) Statewide." Retrieved December 2023, from [ides.illinois.gov](https://ides.illinois.gov). Amy K. Glasmeier, "Living Wage Calculator," Massachusetts Institute of Technology, 2024. Retrieved December 2023, from [livingwage.mit.edu](https://livingwage.mit.edu).



potential, and occupations with median salaries below the living wage of 1 adult, no children (less than \$22.86/hour) are considered as having a “low” living wage potential.

The team identified as a “promising credential” any degree or certification that immediately prepares an individual for entry into or is a stackable for the identified high-priority occupations, then analyzed community college programs leading to these credentials from a sampling of six to ten colleges from across Illinois, representing a mix of urban, suburban, and rural institutions.<sup>2</sup> EdSystems analyzed and categorized all the career-focused and general education courses across the full sampling of the promising credential programs to determine which of these courses:

- are broadly common across multiple college programs in the sample,
- are likely accessible for dual credit opportunities considering student prerequisites and teacher credentialing requirements, and
- are generally transferable through Illinois Articulation Initiative or various articulation agreements.

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 [Appendix C](#)). 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 or IDES 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 including adjusting the course map and promising credential endpoints, selecting strategic early college credit courses, and identifying key competencies for target courses lacking broad statewide articulation. The culmination of EdSystems’ analysis and the input of the Advisory Committee is reflected in this guide.

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<sup>2</sup> For the analysis of this guide, the community colleges surveyed were City Colleges of Chicago, Elgin Community College, Harper College, Illinois Central College, Rock Valley College, Sauk Valley Community College, and Shawnee Community College.

### III. Priority Occupations and Promising Credentials

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, the state is a global headquarters hub, with 37 Fortune 500 companies and 29 S&P 500 companies.<sup>3</sup> Illinois is also home to a robust finance industry thanks to the Chicago Board of Trade, Chicago Stock Exchange, and Chicago Mercantile Exchange, the world's largest futures exchange. 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 boasts the largest rail hub in the country, making this industry sector essential to the state's economy.<sup>4</sup>

#### 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 credential program categories or pathways and additional sub-specializations:

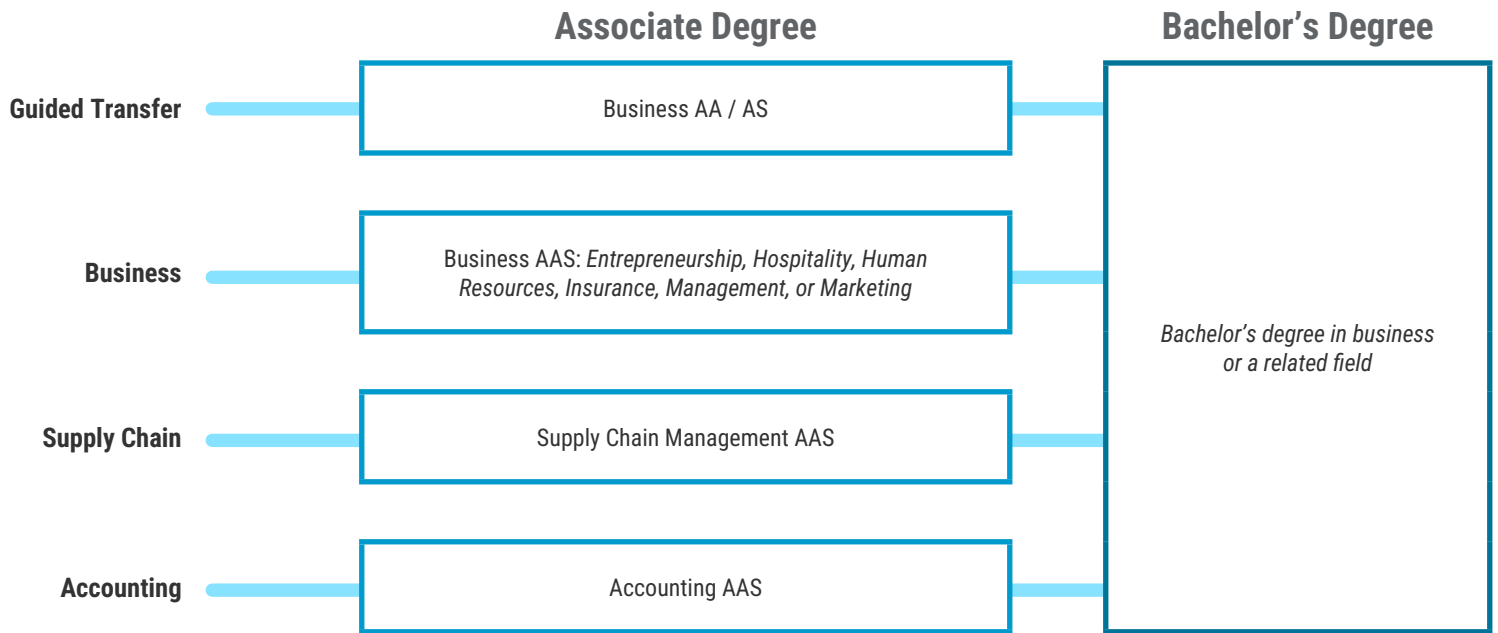
1. **Guided transfer** programs are commonly associated with occupations requiring bachelor's degree for entry-level employment, such as market research analyst, personal financial advisor, human resource specialist, and management analyst. The associate degree programs identified easily transfer to bachelor's degrees and lead to occupations that can be on-ramps to a professional school degree.
2. **Business** credentials lead to entry-level positions such in sales and typically escalate to first-line supervisor roles. Students in an applied business pathway will typically earn an Associate of Applied Science (AAS) with a specialization in marketing, management, entrepreneurship, hospitality, human resources, insurance, etc., which can build toward bachelor's degree programs.
3. **Supply chain** credentials prepare students for roles in distribution centers, including clerks for production, planning, or expediting; managers of transportation, storage, or distribution; and logisticians. A supply chain role may traditionally be considered part of the transportation, distribution, and logistics industry sector, but the Advisory Committee recommended inclusion in this guide because of the significant overlap with business operations.
4. **Accounting** credentials prepare students for various clerk level roles such as billing and posting clerks. The AAS degrees associated with these roles also have a significant degree of transferability to bachelor's degrees in accounting and auditing.

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<sup>3</sup> Illinois Department of Commerce and Economic Opportunity. Why Illinois: Business Minded. Retrieved April 9, 2024, from [dceo.illinois.gov/whyillinois/businessminded.html](https://dceo.illinois.gov/whyillinois/businessminded.html)

<sup>4</sup> Illinois Department of Commerce and Economic Opportunity. "2019 Illinois Economic Development Plan," October 2019. [www2.illinois.gov/dceo/Documents/IllinoisEconomicPlan2019.10.9.2019.pdf](https://www2.illinois.gov/dceo/Documents/IllinoisEconomicPlan2019.10.9.2019.pdf)

## Diagram: Postsecondary Opportunities



*Optional certifications in Microsoft Excel, Quickbooks, Association for Supply Chain Management, Tableau*



Table: Selected Occupations, Wages, and Job Growth

Program	Typical Job(s)	Living Wage Potential*	Median Hourly Wage**	IL Growth: Change over 10 years ***	IL Annual Job Openings***	Typical Educational Requirements
Guided Transfer	<a href="#">Human Resources Specialists</a>	Medium	\$30.99	10.2%	3,150	Bachelor's Degree
	<a href="#">Management Analysts</a>	High	\$50.17	11.2%	4,398	
	<a href="#">Market Research Analysts &amp; Specialists</a>	Medium	\$33.75	20.2%	4,579	
	<a href="#">Personal Financial Advisors</a>	High	\$40.12	6.2%	917	
Business	<a href="#">First-Line Supervisors/Managers of Non-Retail Sales</a>	Medium	\$23.03	1.8%	4,741	
	<a href="#">Sales Representatives of Services</a>	Medium	\$30.91	10.7%	6,889	
	<a href="#">Sales Representatives of Wholesale and Manufacturing, Technical and Scientific Products</a>	Medium	\$30.91	5.1%	6,952	
Supply Chain	<a href="#">Production, Planning, Expediting Clerks</a>	Medium	\$26.14	8.5%	1,457	
	<a href="#">Transportation, Storage, Distribution Managers</a>	High	\$49.13	9.9%	767	
	<a href="#">Logisticians</a>	Medium	\$31.88	29.0%	1,303	
Accounting	<a href="#">Billing &amp; Posting Clerks</a>	Low	\$21.83	2.2%	1,672	
	<a href="#">Accountants &amp; Auditors</a>	Medium	\$37.16	10.7%	5,468	

\* Living wage potential is based on MIT's Living Calculator ([livingwage.mit.edu](http://livingwage.mit.edu)) for Illinois in 2024. Occupations with median salaries higher than the living wage for 1 adult + 1 child (\$39.63/hour) are considered as having a "high" living wage potential. Occupations with median salaries only higher than the living wage of 1 adult, no children (\$22.86/hour) are considered as having a "medium" living wage potential, and occupations with median salaries below the living wage of 1 adult, no children (less than \$22.86/hour) are considered as having a "low" living wage potential.

\*\* Illinois Department of Employment Security (2022). Wage Information: Occupational Employment and Wage Statistics (Statewide). Retrieved April 2, 2024, from [ides.illinois.gov/resources/labor-market-information/oews.html](https://ides.illinois.gov/resources/labor-market-information/oews.html)

\*\*\* Illinois Department of Employment Security. Employment Projections (Long-Term Occupational Projections 2020-2030). Retrieved April 2, 2024, from [ides.illinois.gov/resources/labor-market-information/employment-projections.html](https://ides.illinois.gov/resources/labor-market-information/employment-projections.html)

## High-Priority Occupations

The high-priority occupations associated with each of the promising credential program areas are identified in the table entitled Select Occupations, Wages, and Job Growth. The occupations affiliated with guided transfer pathways typically meet the job growth and living wage threshold described in this guide. 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 and offer a representation of the breadth of the finance and business services sector.

For the accounting and business pathways, some of the listed roles have a medium-level potential for meeting the job growth and living wage threshold. These roles, including billing and posting clerk and first-line supervisors/managers of non-retail sales, are included because the associate degrees associated with these roles have a significant transferability to bachelor's degrees in business and accounting, leading to higher-earning careers. Additionally, associate degrees in business and accounting are still relevant in key regions of the state and small business environments. Roles in hospitality and first-line supervision of retail workers are excluded as they do not meet the living wage threshold of the guide and are somewhat redundant to the included roles.

For supply chain pathways, the roles listed meet the required job growth and living wage threshold. These roles—such as production, planning, and 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 finance and business services pathways are somewhat varied, but all the high-priority occupations identified typically require or benefit from some college preparation or higher. While some individuals might currently 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 whenever possible. Young adults in entering high-earning careers such as accounting or management will typically need a bachelor's degree and will further benefit from attainment of a master's degree. Those credentials are therefore depicted as a guided transfer pathway from an associate degree to a bachelor's degree. The specific bachelor's degree is not specified, as many professionals hold unrelated bachelor's degrees, such as a liberal arts degree, and still succeed in business with the right skills or by also earning a professional degree.

## Advisory Committee Considerations

The Advisory Committee 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. Although the certifications are valuable in the industry, the committee determined that earning the certification is not more valuable than the acquisition of associate and bachelor's degrees, because learners cannot typically acquire employment in a high-priority occupation with the certifications alone. Moreover, the software skills analogous with the various certifications are commonly integrated into existing degree coursework and projects. Lastly, employers often test for mastery or skill in the specified software before offering employment. Therefore, the supporting certifications included in this guide can help identify necessary skills in finance, business and accounting, but are not promising credentials by themselves.
















The committee also noted that many working in accounting may have a bachelor's degree in some other industry and come back to community college for accounting certifications.







## IV. Programs of Study Sequence Description

Students 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 have more openings in their schedule to complete skill development and capstone options, obtain significant early college credits, earn valuable industry credentials, and potentially acquire a [College and Career Pathway Endorsement](#) before high school graduation.

As school districts and their community college partners develop a program of study sequence, they should ensure that the high school coursework enables all students in the pathways to attain Illinois' [Recommended Essential Employability and Technical Competencies](#) and the top relevant technical competencies (see [Appendix A](#)).

### Diagram: Career-Focused Instructional Sequence

	GRADES 9–10 <b>Orientation</b>	GRADES 10–12 <b>Skill Development</b>	GRADE 12 <b>Capstone</b>	 <b>1ST YEAR*</b> <b>Postsecondary</b>
<b>Business, Finance, &amp; Accounting</b>	Intro to Business 	Choose 1: • Entrepreneurship  • Intro to Accounting 	Financial Accounting 	Ethics  Managerial Accounting 
<b>Management &amp; Marketing</b>	Computer Applications for Business 	Choose 1: • Entrepreneurship  • Intro to Accounting 	Choose 1: • Intro to Management  • Intro to Marketing  • Business Law 	Ethics  Financial Accounting 
<b>Work-Based Learning</b>	Career Exploration (2)	Choose 1: Career Development Experience or Youth Apprenticeship		
	Team-Based Challenge (2); may be offered through <i>Career and Technical Student Organizations</i>			

KEY:  AP or dual credit course     Dual credit course     College & Career Pathway Endorsement  
 Dual credit course with IAI     Postsecondary course with IAI     Course prepares for industry credential  
*\* If credit was already earned through an early college course, take the next requirement in the sequence or, if none, additional AAS or major courses*

### High School Career-Focused Instructional Sequence and Work-Based Learning

The Model Programs of Study in 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. Through the orientation, skill development, and capstone experiences, the model 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 Coursework

Because of its frequency at the postsecondary level, this guide recommends secondary students in a business or finance pathway start with an ISBE Career and Technical Education (CTE) orientation course that can also be counted for dual credit with the Introduction to Business course typically offered at many postsecondary partners and required in most promising credentials. Two of ISBE's CTE courses align to the typical Introduction to Business course: Business Technology and Concepts and Introductory Business. Introduction to Business is recommended for articulation as detailed in the Strategic Dual Credit Courses: Competency Descriptions section of this guide. Additionally, Introduction to Business typically has no student prerequisites or eligibility requirements, making this course broadly accessible to students as a dual credit or as a virtual dual enrollment opportunity.

Having completed Introduction to Business, students should next enroll in a dual credit course titled Computer Applications for Business, which is offered at most community colleges and frequently transferable through an Illinois Articulation Initiative (IAI) code for those who will pursue degrees in business or information technology. Typically, Computer Applications for Business has no student prerequisites and teacher credentialing requirements can be met by secondary faculty. The Advisory Committee emphasized the need for students in finance and business to have a strong foundation in workplace software and technology, such as spreadsheets, which is the emphasis of this course.

To begin preparing for the College and Career Pathway Endorsements, students should also participate in multiple virtual and in-person visits to employer sites to better understand authentic industry environments and engage with professionals in the field. Students should hear from a variety of guest speakers in an array of finance and business services careers to better understand opportunities in the field. Through the orientation course, students should be prepared to document their own personalized career pathway that leads to a promising credential.

### Skill Development Coursework

The skill development course recommendations are Entrepreneurship and Introduction to Management, offered as early college classes. Entrepreneurship is a common community college business course that introduces students to the mechanics of starting a business and has significant overlap with popular secondary curricula from third-party organizations such as INCubatoredu and The CEO Program, and several high school district representatives in the Advisory Committee emphasized how successful such programs are at attracting students into a business pathway and embedding project-based and professional learning in the classroom. 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 [ISBE's CTE program matrix](#) for financial and business services. For this reason, the Advisory Committee included a set of entrepreneurship competencies in a later section of this guide.

If an entrepreneurship program or coursework is unavailable in a region, students should take Introduction to Accounting as a dual credit course. This course commonly has fewer prerequisites and placement requirements compared with other business courses, with the college course Introduction to Business typically being the immediate gateway course. Thus, Introduction to Business followed by Entrepreneurship or Introduction to Accounting provides a strong, accessible dual credit sequence. If dual credit cannot be offered due to difficulties in teacher credentialing, the ISBE CTE course Accounting 1 provides valuable, foundational instruction and fulfills the requirements for the CTE program matrix.

To be on track to earn the College and Career Pathway Endorsements, regional high school and community college partners should ensure students have earned three to six early college credit hours through the skill development courses. Additionally, students should continue progressing through the [work-based learning continuum](#). Classroom instruction should be coupled with continued employer site visits, an opportunity for students to participate in a job shadow experience at an employer site, and

clubs or challenges related to their program area. Team-based challenges should be completed either as activities embedded within course curriculum or through a student/extracurricular organization. Students should be encouraged to engage in student or professional finance and business services organizations, including Career and Technical Student Organizations, to continue to build familiarity with the profession and pathways towards various career options.














### Capstone Coursework







At the capstone level, students should take the Financial Accounting course if they have the math eligibility for it. Not to be confused with Introduction to Accounting mentioned in the skill development section, 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. It exists in every single guided transfer or promising credential for business, accounting, or supply chain program and is universally offered as an IAI transferable course at all Illinois postsecondary institutions. Thus, students who take and pass this course 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: a master's degree in business or a related field is typically required. Moreover, due to the high level of math in its curriculum, the course typically has a pre-requisite of a college-level algebra class or beyond. As a result, students eligible to take this course will likely have earned an 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 will be able to take more advanced courses in the first year of a postsecondary program.

Students unable to take Financial Accounting should focus on management and marketing in the capstone experience through any combination of the following early college courses: Introduction to Management, Introduction to Marketing, or Business Law. All of these courses are universally offered at Illinois community colleges, have an overlap with ISBE CTE program matrix for financial and business services, and are typically required among all promising AAS credentials with some opportunity for transferability. Note that most community colleges offer two business law courses that have similar course descriptions: Business Law and 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 this guide we have labeled the course Business Law for simplicity.

To be eligible for the College and Career Pathway Endorsements, all students should complete a career development experience of at least 60 hours in length and earn at least six or more early college credit hours, through a mix of both career-focused and general education coursework. Additionally, students should continue participation in clubs, professional organizations, or challenges related to their pathway.

## Diagram: General Education Instructional Sequence

	GRADES 9–10 <b>Orientation</b>	GRADES 10–12 <b>Skill Development</b>	GRADE 12 <b>Capstone</b>	 1ST YEAR* <b>Postsecondary</b>
<b>Math</b> for Business, Finance, & Accounting	<i>Math sequence: highest-level course possible</i>	<i>Math sequence: highest-level course possible</i>	Choose 1: • College Algebra  • Calculus  • Statistics 	Choose 1: • Calculus*  • Statistics* 
<b>Math</b> for Management & Marketing			Choose 1: • <i>Math sequence: highest-level course possible</i> • Transitional Math	Choose 1: • College Algebra • Statistics 
<b>English</b>	<i>English sequence</i>	<i>English sequence</i>	Choose 1: • Transitional English • English Composition 	Choose 1: • English Composition*  • Oral Communication  • Business Communications
<b>Science</b>	<i>Science sequence</i>	<i>Science sequence</i>	<i>Science sequence</i>	<i>Science sequence</i>
<b>Social Science</b>	<i>Social science sequence</i>	<i>Social science sequence</i>	Choose 1–2: • Microeconomics • Macroeconomics 	Choose 1: • Microeconomics & Macroeconomics*  • Psychology 

KEY:  AP or dual credit course     Dual credit course     College & Career Pathway Endorsement  
 Dual credit course with IAI     Postsecondary course with IAI     Course prepares for industry credential  
*\* If credit was already earned through an early college course, take the next requirement in the sequence or, if none, additional AAS or major courses*

### High School General Education Courses

There are 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 enhance students' opportunities for postsecondary success in addition to the career-focused courses already delineated.

- In **science**, students should complete the state's or local district's graduation requirements and seek to earn early college credit 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, including Microeconomics and/or Macroeconomics. Universally offered at all postsecondary institutions, economics courses are as strategic and valuable for finance and business as Financial Accounting. Microeconomics 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 a business, finance, or accounting pathway will need a robust foundation to succeed in the Financial Accounting course. As a result, students should take the highest-level math courses possible and culminate their secondary education with early college coursework in math: College Algebra (dual credit), Calculus (AP or dual credit), and/or Statistics (AP or dual credit). If any early college math courses can be taken before senior year, the student will be positioned to enroll in Financial Accounting as a capstone course.

Students in management and marketing pathways should take the highest-level math course for which they are eligible each year. In 12th grade, at minimum students should take a transitional math course that, upon successful completion, guarantees college-level placement upon their enrollment at any Illinois community college as well as accepting Illinois universities.

- In **English**, students prepared for college-level coursework by senior year should enroll in a dual credit English Composition or Advanced Placement English Language and Composition course if available. Students not prepared for college-level coursework should enroll in a transitional English course that, upon successful completion, guarantees college-level placement in the English Composition course at any Illinois community college as well as accepting Illinois universities.

### First-Year Postsecondary Courses

The recommended first-year postsecondary courses build upon the knowledge and skills recommended at the capstone level. Students who did not yet complete Financial Accounting should do so within the first year of postsecondary education. Students who already completed Financial Accounting and some college credit in math should pursue Managerial Accounting, an IAI course that included in almost all promising credentials in finance and business as well as guided transfer programs. Having completed Financial Accounting and Managerial Accounting, students should continue the associate degree sequence and pursue Ethics, an IAI course that can be considered both a career-focused and social science course, and is a common requirement for guided transfer programs and promising credentials.

In the general education course areas, students will start or continue with the required 100-level courses that are strategic for promising credentials and transferable through the IAI. In social science, students are likely to take Microeconomics Macroeconomics, and Psychology. In English/communications, English Composition, 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 courses in their major.

In math, the business, finance and accounting pathway students should pursue both calculus and statistics while the management and marketing pathway students should pursue both algebra and statistics, with an emphasis on courses with IAI affiliation whenever possible. High-priority occupations 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 imperative that students have a foundation in data analytics as well.

## V. Strategic 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 currently lacking current statewide articulation. In Finance and Business Services, those courses were Introduction to Business and Entrepreneurship.

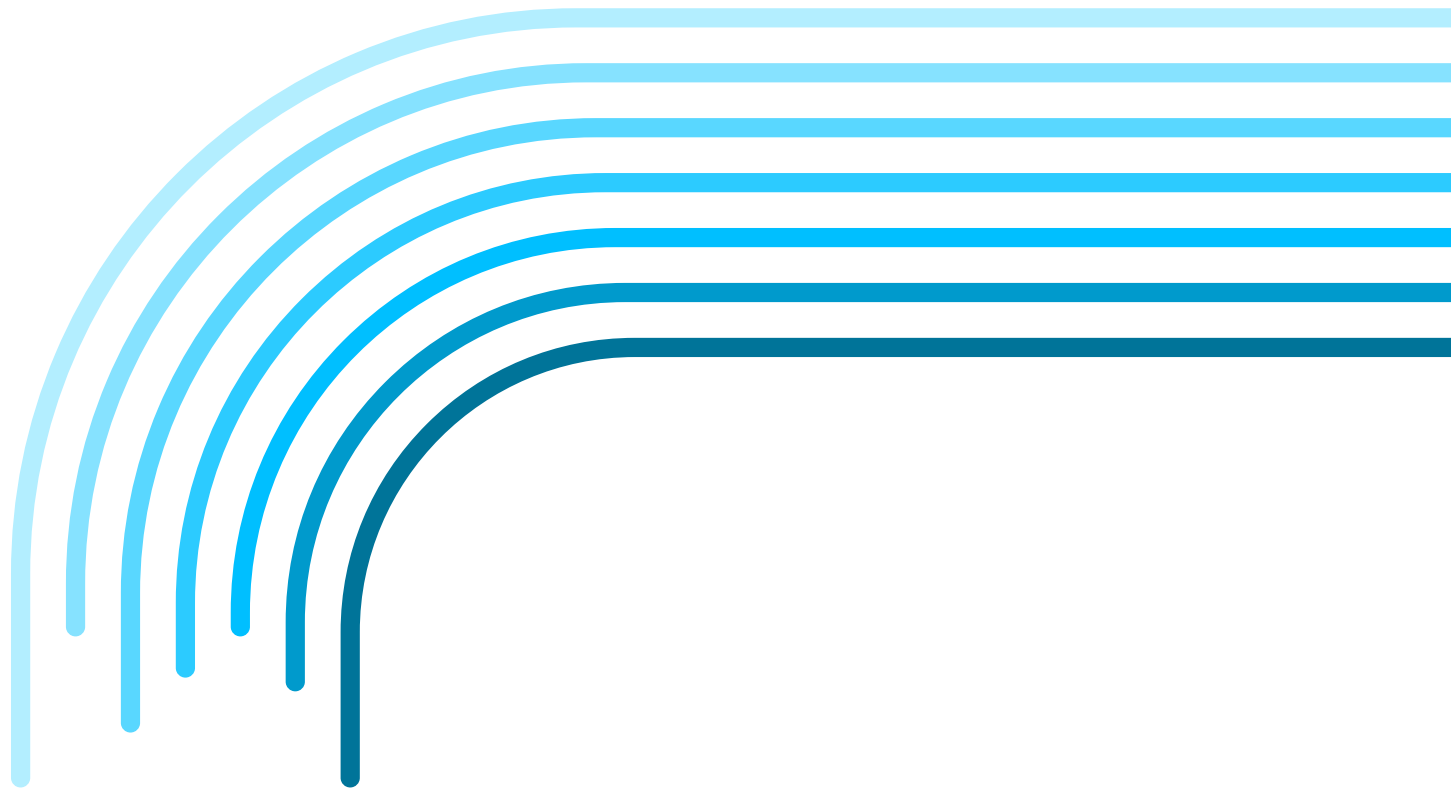
<b>Introduction to Business</b> <i>Key Competencies</i>	
<b>Analysis &amp; Decision Making</b>	Student will be able to describe and model basic principles and critical thinking skills for sound business decision-making.
<b>Business Language &amp; Terms</b>	Student will have a broad understanding of business terminology, technology and communications.
<b>Operations, Planning, &amp; Management</b>	<p>Students can identify and describe the functional areas of a business plan and the value proposition of a business.</p> <p>Students can discuss human resources management issues including employee-management issues, and motivation.</p>
<b>Roles &amp; Experiences in Business</b>	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.
<b>Communications &amp; Marketing</b>	Students can function effectively in today's diverse workplace through use of sound interpersonal skills and basic information technology, including digital communication.
<b>Diversity in the Workplace</b>	Students will understand and appreciate diversity principles and apply them in the workplace.
<b>Ethics</b>	Students can identify ethical standards in business and apply these standards in decision-making and to issues of social responsibility.
<b>Global Enterprise &amp; the Market System</b>	<p>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.</p> <p>Students can define small business and entrepreneurship and how they fit within the American free enterprise and economic system.</p>
<b>Private Ownership &amp; Capital</b>	Students can describe the different forms of legal ownership, including corporations, franchises, and other small businesses



## Entrepreneurship

### *Key Competencies*

<b>Business Fundamentals</b>	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.
<b>Capital &amp; Financing</b>	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.
<b>Initial Concept &amp; Business Plan</b>	Students will develop a startup concept in any business environment and construct an initial business plan for this venture.
<b>Entrepreneurship &amp; Society</b>	<p>Students can apply entrepreneurial concepts, practices and theories to everyday case studies and examples.</p> <p>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.</p> <p>Students can explain how entrepreneurs have helped shape modern society.</p>
<b>Market Research &amp; Implementation Strategy</b>	<ul style="list-style-type: none"> <li>• Students will be able to create an investigative analysis to evaluate the risks, legal implications, and feasibility of a business opportunity.</li> <li>• 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.</li> <li>• Students will be able to describe and apply the iteration process to test the viability of a product or idea.</li> <li>• Students can, using marketplace data, develop marketing and sales plans including promotional strategies.</li> </ul>
<b>Business Communications</b>	Students will display the communication skills necessary to be able to pitch a startup idea to a target audience of experts.



# Appendices

## A: Technical and Essential Employability Competencies for Finance and Business Services

The following technical and employability competencies for finance and business services are from “[Recommended Technical and Essential Employability Competencies for College and Career Pathway Endorsements](#),” a document developed through an iterative process involving public-private steering committees established pursuant to the Postsecondary and Workforce Readiness Act in order to implement College and Career Pathway Endorsements.

<i>Technical and Essential Employability Competencies for</i> <b>Finance and Business Services</b>	
<b>Cash &amp; Capital Principles</b>	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.
<b>Technical Applications</b>	Students can use their understanding of spreadsheets and accounting software to maintain, update, and retrieve data from records.
<b>Project Management</b>	Students can use their understanding of time management and organization to set timely and measurable goals leading to project completion.
<b>Principles of Economics &amp; Business</b>	Students can use their understanding of micro- and macro-economics to understand how an economy functions locally and globally.
<b>Financial Reporting</b>	Students can use their understanding of financial statements to assess a business’s financial information.
<b>Financial Statements</b>	Students can use their understanding of financial statements to prepare and interpret balance sheets, income statements, cash flow statements, and retained earnings.
<b>Customer Care &amp; Marketing</b>	Students can use their understanding of market demands to meet the needs of a client.
<b>Business Operations</b>	Students can use their understanding of transaction management to perform business operations.
<b>Principals of Customer Relationship Management</b>	Students can use their understanding of customer communication and customer relationship management software to attract new customers and sustain existing customers.
<b>Fundamentals of Sales</b>	Students can use their understanding of personalized service and market demands to secure successful sales interactions.

## B: Cross-Sector Essential Employability and Entrepreneurial Competencies

The following cross-sector competencies are from “[Recommended Technical and Essential Employability Competencies for College and Career Pathway Endorsements](#),” a document developed through an iterative process involving public-private steering committees established pursuant to the Postsecondary and Workforce Readiness Act in order to implement College and Career Pathway Endorsements.

<b>Essential Employability Competencies</b>	
<b>Teamwork &amp; Conflict Resolution</b>	Students can use their understanding of working cooperatively with others to complete work assignments and achieve mutual goals.
<b>Communication</b>	<p><b>Verbal:</b> 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><b>Written:</b> Students can use their understanding of standard business English to ensure that written work is clear, direct, courteous, and grammatically correct.</p> <p><b>Digital:</b> 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>
<b>Problem Solving</b>	Students can use their critical thinking skills to generate and evaluate solutions as they relate to the needs of the team, customer, and company.
<b>Decision Making</b>	Students can use their understanding of problem solving to implement and communicate solutions.
<b>Critical Thinking</b>	Students can use their understanding of logic and reasoning to analyze and address problems.
<b>Adaptability &amp; Flexibility</b>	Students can use their understanding of workplace change and variety to be open to new ideas and handle ambiguity.
<b>Initiative &amp; Self-Drive</b>	Students can use their understanding of goal setting and personal impact to achieve professional goals and understand personal impact.
<b>Reliability &amp; Accountability</b>	Students can use their understanding of commitment, time management, and follow through to ensure that a professional team functions properly and meets collective goals.
<b>Cultural Competence</b>	Students can use their understanding of diversity and inclusion to communicate and work effectively across a multitude of abilities, cultures, and backgrounds.
<b>Planning &amp; Organizing</b>	Students can use their understanding of time management to plan effectively and accomplish assigned tasks.

## **Entrepreneurial Competencies**

<b>Principles of Entrepreneurship</b>	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.
<b>Innovation &amp; Invention</b>	Students can use their understanding of idea generation, design thinking, product and business development in order to introduce and process new and effective ideas.
<b>Growth Mindset</b>	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.

## C: 2021 Advisory Committee Membership

### **Austin Brooks**

*Executive Director  
Midland Institute for Entrepreneurship*

### **Somnath Bhattacharya**

*Dean & Professor of Accountancy  
University of Illinois Springfield*

### **Anne Cothran**

*Director  
Des Plaines Valley Region Education for Employment  
System (DVR EFE 030)*

### **Anne Drougas, PhD**

*Professor of Finance and Chair of Accounting,  
Finance and Entrepreneurship  
Dominican University, Brennan School of Business*

### **David Friedman**

*CEO/Founder  
AutonomyWorks*

### **Kelly Greene**

*CTE Department Chair  
Central High School D301*

### **Orlando Griego, PhD**

*Dean of the College of Business & Health  
Administration  
University of St. Francis, School of Business*

### **Danielle L. Hauser, PhD**

*Director of Instructional Improvement  
Township High School District 211*

### **Janelle Jones**

*Associate Director for CTE  
Illinois Community College Board*

### **David Klein**

*Community Development Relationship Manager  
Fifth Third Bank*

### **Stephanie Klie**

*Associate Professor of Business  
Kaskaskia College*

### **Deja Lockett**

*CTE Research Analyst  
Illinois Community College Board*

### **Bridgette Mahan**

*Business Management Faculty  
City Colleges of Chicago (Harold Washington)*

### **David Osborne**

*Principal Consultant  
Illinois State Board of Education*

### **Mary Pille**

*Community Organizers  
Junior Achievement*

### **Ranae Ziwicki**

*Associate Professor of Accounting and Instructional  
Coordinator  
Elgin Community College*

### **Amy Romito**

*Executive Director  
NSERVE*

### **Dan Serota**

*Senior Manager, Public Affairs North America  
Aon*

### **Mark Shanley**

*Professor and Associate Dean for Academic Affairs,  
Department of Managerial Studies  
UIC College of Business Administration*

### **Whitney Thompson**

*Senior Director for CTE  
Illinois Community College Board*

### **Leslie Van Wolvelear, CPA, CGMA**

*Professor of Accounting  
Oakton Community College*

### **Jun Zhao, PhD**

*Dean, College of Business  
Governors State University*

## D: College and Career Pathway Endorsements Framework

The College and Career Pathway Endorsements system is a voluntary system for school districts to award endorsements on high school diplomas to graduates who have demonstrated readiness for college and careers. The following framework for the endorsement system is available as a [PDF download](#).



# College and Career Pathway Endorsements Framework



### INDIVIDUAL PLAN

Each student completing an endorsement must have an individualized plan, which includes college planning linked to early understanding of career goals, financial aid, resume, and personal statement.

### PROFESSIONAL LEARNING

Awareness, exploration, and preparation activities that provide opportunities for students to interact with adults in their workplace and gain essential employability and technical competencies.

9th	10th	11th	12th
At least 2 career exploration activities or 1 intensive experience		60 cumulative hours of paid or for credit, supervised career development experience(s) with a professional skills assessment r	
At least 2 team-based challenges with adult mentoring			

### CAREER-FOCUSED INSTRUCTIONAL SEQUENCE

2 years of secondary coursework or equivalent that include essential employability and technical competencies, at least 6 hours of early college credit, and articulation to a postsecondary credential with labor market value.

9th	10th	11th	12th
Orientation / Introduction Courses			
	Skill Development Courses		
			Capstone / Advanced Courses

### ACADEMIC READINESS

Ready for non-remedial coursework in reading and math by high school graduation through criteria defined by the school district and local community college.

## E: Illinois' Work-Based Learning Continuum

Illinois has a defined continuum of work-based learning opportunities, which spans from secondary to postsecondary. Components, defined in statute and the [Illinois Career Pathways Dictionary](#), include career awareness, career exploration, team-based challenges, career development experiences, youth or pre-apprenticeships, and apprenticeships.

*Work-Based Learning & Host Engagement Continuums*




























Illinois' continuum represents the many forms of work-based learning that grow in intensity depending on the model. However, this continuum is not intended to convey a fixed or ideal progression. As individuals learn through their work-based learning experiences, they may return to less intensive models to develop different skills or explore additional interests. Individuals should be supported to engage in these activities iteratively as they explore the multiple entry and exit points of career pathways.







Providing high-quality work-based learning requires strong partnerships between educators and regional employers. As the intensity of students' experiences progress, so too does the role of employer partners serving as host sites.



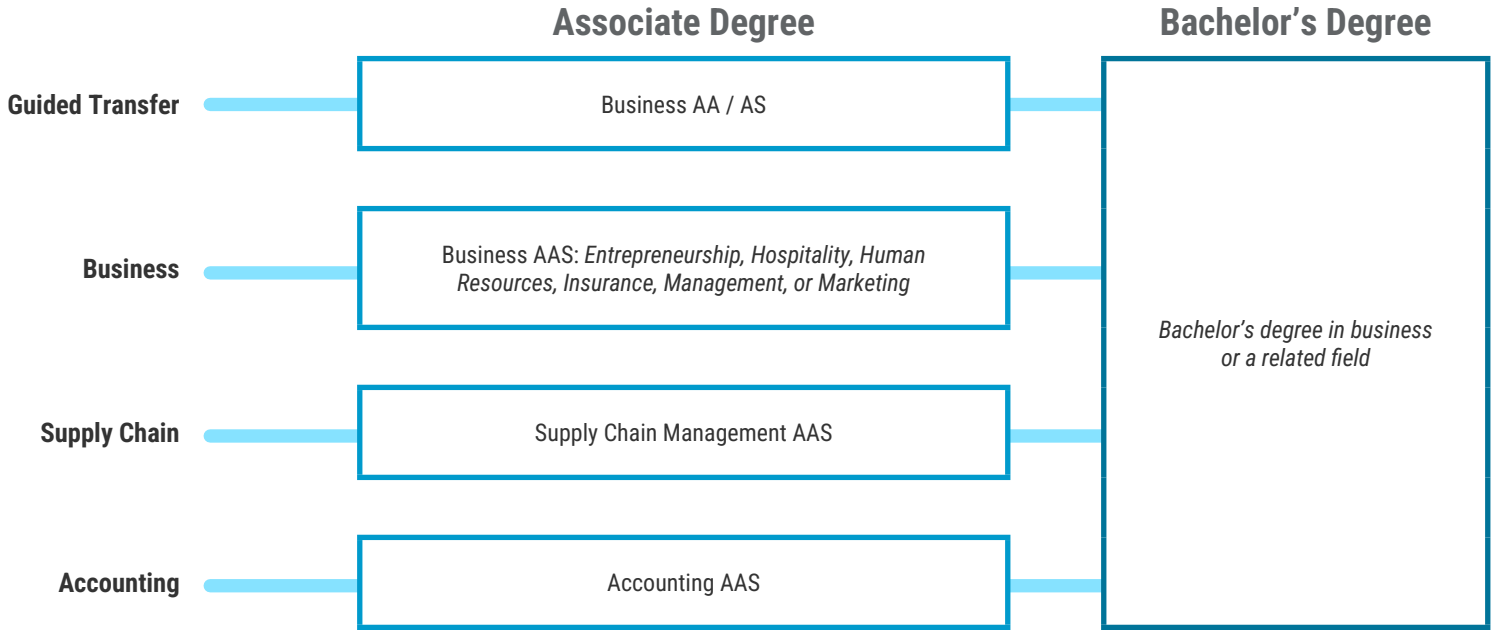
# Model Programs of Study in Finance and Business Services

## Recommended Courses

	GRADES 9–10 Orientation	GRADES 10–12 Skill Development	GRADE 12 Capstone	 1ST YEAR* Postsecondary
<b>Business, Finance, &amp; Accounting</b>	Intro to Business 	Choose 1: • Entrepreneurship  • Intro to Accounting 	Financial Accounting 	Ethics  Managerial Accounting 
<b>Management &amp; Marketing</b>	Computer Applications for Business 		Choose 1: • Intro to Management  • Intro to Marketing  • Business Law 	Ethics  Financial Accounting 
<b>Work-Based Learning</b>	Career Exploration (2)	Choose 1: Career Development Experience or Youth Apprenticeship		
	Team-Based Challenge (2); may be offered through <i>Career and Technical Student Organizations</i>			
<b>Math for Business, Finance, &amp; Accounting</b>	Math sequence: highest-level course possible	Math sequence: highest-level course possible	Choose 1: • College Algebra  • Calculus  • Statistics 	Choose 1: • Calculus*  • Statistics* 
<b>Math for Management &amp; Marketing</b>			Choose 1: • Math sequence: highest-level course possible • Transitional Math	Choose 1: • College Algebra • Statistics 
<b>English</b>	English sequence	English sequence	Choose 1: • Transitional English • English Composition 	Choose 1: • English Composition*  • Oral Communication  • Business Communications
<b>Science</b>	Science sequence	Science sequence	Science sequence	Science sequence
<b>Social Science</b>	Social science sequence	Social science sequence	Choose 1–2: • Microeconomics • Macroeconomics 	Choose 1: • Microeconomics & Macroeconomics*  • Psychology 

KEY:  AP or dual credit course     Dual credit course     College & Career Pathway Endorsement  
 Dual credit course with IAI     Postsecondary course with IAI     Course prepares for industry credential  
*\* If credit was already earned through an early college course, take the next requirement in the sequence or, if none, additional AAS or major courses*

## Postsecondary Opportunities



*Optional certifications in Microsoft Excel, Quickbooks, Association for Supply Chain Management, Tableau*

## Selected Occupations, Wages, and Job Growth

Program	Typical Job(s)	Living Wage Potential*	Median Hourly Wage**	IL Growth: Change over 10 years ***	IL Annual Job Openings***	Typical Educational Requirements
<b>Guided Transfer</b>	<a href="#">Human Resources Specialists</a>	Medium	\$30.99	10.2%	3,150	Bachelor's Degree
	<a href="#">Management Analysts</a>	High	\$50.17	11.2%	4,398	
	<a href="#">Market Research Analysts &amp; Specialists</a>	Medium	\$33.75	20.2%	4,579	
	<a href="#">Personal Financial Advisors</a>	High	\$40.12	6.2%	917	
<b>Business</b>	<a href="#">First-Line Supervisors/Managers of Non-Retail Sales</a>	Medium	\$23.03	1.8%	4,741	
	<a href="#">Sales Representatives of Services</a>	Medium	\$30.91	10.7%	6,889	
	<a href="#">Sales Representatives of Wholesale and Manufacturing, Technical and Scientific Products</a>	Medium	\$30.91	5.1%	6,952	
<b>Supply Chain</b>	<a href="#">Production, Planning, Expediting Clerks</a>	Medium	\$26.14	8.5%	1,457	
	<a href="#">Transportation, Storage, Distribution Managers</a>	High	\$49.13	9.9%	767	
	<a href="#">Logisticians</a>	Medium	\$31.88	29.0%	1,303	
<b>Accounting</b>	<a href="#">Billing &amp; Posting Clerks</a>	Low	\$21.83	2.2%	1,672	
	<a href="#">Accountants &amp; Auditors</a>	Medium	\$37.16	10.7%	5,468	

\* Living wage potential is based on MIT's Living Calculator ([livingwage.mit.edu](http://livingwage.mit.edu)) for Illinois in 2024. Occupations with median salaries higher than the living wage for 1 adult + 1 child (\$39.63/hour) are considered as having a "high" living wage potential. Occupations with median salaries only higher than the living wage of 1 adult, no children (\$22.86/hour) are considered as having a "medium" living wage potential, and occupations with median salaries below the living wage of 1 adult, no children (less than \$22.86/hour) are considered as having a "low" living wage potential.

\*\* Illinois Department of Employment Security (2022). Wage Information: Occupational Employment and Wage Statistics (Statewide). Retrieved April 2, 2024, from [ides.illinois.gov/resources/labor-market-information/oews.html](https://ides.illinois.gov/resources/labor-market-information/oews.html)

\*\*\* Illinois Department of Employment Security. Employment Projections (Long-Term Occupational Projections 2020-2030). Retrieved April 2, 2024, from [ides.illinois.gov/resources/labor-market-information/employment-projections.html](https://ides.illinois.gov/resources/labor-market-information/employment-projections.html)