

Bachelor of Science in Information Technology (BSIT) Supporting Areas Guidebook

UNT Computer Science and Engineering
UNT College of Engineering
UNT Discovery Park
Denton, TX





Supporting Area: **Networking and Security**

Total number of credit hours: 18

Combining your IT degree with this supporting If you want to work as: **a Security Analyst, Penetration Tester, or Cloud Security Architec, Security Auditor, Security Engineer**. Entry-level salaries in 2026 typically range from **\$70,000 to \$95,000**

Courses:

Choose 6 courses from the following:

- CSCE 4560 - Secure Electronic Commerce
Prerequisite(s): CSCE 2110
- CSCE 4600 - Intro to Operating Systems
Prerequisite(s): CSCE, 3600
- CSCE 3560 - Cloud Security
Prerequisite(s): CSCE 3550, 3600
- CSCE 4050 - Applications of Cryptography
Prerequisite(s): CSCE 2100 and CSCE 2110
- CSCE 4565 – Secure Software Systems
Prerequisite(s): CSCE 3550
- CSCE 4570 – Information Privacy
Prerequisite(s): CSCE 3550
- CSCE 4357 - Database Systems Security
Prerequisite(s): CSCE 4350
- CSCE 4575 - Blockchain and Applications
Prerequisite(s): CSCE 3600
- CSCE - 4890 Directed Study in Cybersecurity Topics



Includes and Academic Certificate: yes

This supporting area, when combined with required major courses (especially CSCE 4560, 4600, 3550) aligns with the **Security Certificate** offered by the UNT Computer Science & Engineering department. Students who complete the necessary coursework and add the certificate to their academic plan will receive a **digital Security Certificate**.

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: **AI/Big Data**

Total number of credit hours: 18

Combining your IT degree with this supporting, will prepare you for positions such as.: AI Developer, Data Engineer, Machine Learning Specialist, Data Analyst,..... with **Salary (2026):** Entry-level positions start between **\$85,000 – \$110,000**.

Courses:

Choose 6 Courses from the following:

- DTSC 3010 Introduction to Data Science
Prerequisite(s): MATH 1650, CSCE 1030
- CSCE 4201 Introduction to Artificial Intelligence
Prerequisite(s): CSCE 2110
- CSCE 4205 Introduction to Machine Learning
Prerequisite(s): CSCE 2110
- CSCE 4300 – Intro to Big Data and Data Science
Prerequisite(s): CSCE 2110
- CSCE 4290 Intro to Natural Language Processing
Prerequisite(s): CSCE 2110
- DTSC 4510 - Deep Learning for Data
- CSCE 4890 Directed Study in AI/Data Analytics



Includes an Academic Certificate: **yes**

This supporting area, when combined with required major courses (especially CSCE 4201, 3214, 4205, 4290, 4300, 4890) aligns with the **Artificial Intelligenc (AI) Certificate** offered by the UNT Computer Science & Engineering department. Students who complete the necessary coursework and add the certificate to their academic plan will receive a **digital AI Certificate**.

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: **Computer Hardware**

Total number of credit hours: 18

Combining your IT degree with this supporting, **will** prepare you for positions such as: **Hardware Engineer, FPGA Designer, or Systems Architect**, with entry-level salaries in Texas averaging between entry level **\$113,000 and \$135,000** as of 2026. High-demand tech hubs like Dallas and Austin offer top compensation for these positions, with specialized roles in **ASIC design** and **embedded systems** starting near **\$140,000** and can climb toward **\$160,000 to \$210,000**.

Courses:

Choose 6 Courses from the following:

- EENG 2710 Digital Logic Design
Prerequisite(s): EENG 2711
- EENG 2711 Digital Logic Design Lab
Prerequisite(s): EENG 2710
- CSCE 3610 Introduction to Computer Architecture
Prerequisite(s): CSCE 2610 or CSCE 4127
- CSCE 3612. Embeded Systems Design
Prerequisite(s): CSCE 2610 or CSCE 4127, ENGR 2720/2730, or EENG 2720/2711
- CSCE 4600 Operating Systems
Prerequisite(s): CSCE 3600
- CSCE 4890 Directed Study (Hardware Topic)

Includes an Academic Certificate: NO

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: **Software Systems & Engineering**

Total number of credit hours: 18

Combining your IT degree with this supporting leads to Top 2026 IT roles like **Software Developer, Software Engineer, Systems Programmer, Algorithm Analyst, and Software Testing Engineer**. Graduates gain strong skills in algorithms, programming languages, operating systems, and software design, which are highly valued in both industry and research settings. Typical entry-level salaries in 2026 range from **\$65,000 to \$95,000** depending on location.

Courses:

Choose 6 Courses from the following:

- CSCE 4110 Algorithms
Prerequisite: CSCE 2110
- CSCE 4115 Formal Languages, Automata and Computability
Prerequisite: CSCE 2100 and CSCE 2110
- CSCE 4430 Programming Languages
Prerequisite: CSCE 2100 and CSCE 2110
- CSCE 4565 Secure Software Development
Prerequisite: CSCE 3550
- CSCE 4600 Introduction to Operating Systems
Prerequisite: CSCE 3600
- CSCE 4650 Introduction to Compilation Techniques
Prerequisite: CSCE 2100, CSCE 2110 and CSCE 3600
- CSCE 4460 Software Testing and Empirical Methodologies
Prerequisite: CSCE 2110
- CSCE 4665 Usability Testing in Software Engineering
Prerequisite: CSCE 3444



Includes an Academic Certificate: yes

This supporting area, when combined with required major courses (especially CSCE 4665) aligns with the **Software Engineering Certificate** offered by the UNT Computer Science & Engineering department. Students who complete the necessary coursework and add the certificate to their academic plan will receive a digital **Software Engineering Certificate**.

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: **Software / Web Development**

Total number of credit hours: 18

*Based on current 2026 data for the Texas tech market, the top three career outcomes for students Combining their IT degree with this supporting Software/Web Development stack: leads to **Full-Stack Software Engineer**: Your salary is Entry-level: \$70,000–\$95,000.*

Courses:

Choose 6 Courses from the following:

- BCIS 3630: Object-Oriented Programming for Business
Prerequisite: BCIS 2610
- BCIS 3680: Advanced Object-Oriented Programming for Business
Prerequisite: BCIS 3630
- BCIS 4720: Web-Based Information Technologies
Prerequisite: BCIS 3630
- LTEC 3261 – Advanced Web and Media Development
Prerequisite: LTEC 3260
CSCE 4200 - Web Search and Information Retrieval.
Prerequisite: CSCE 2110
- CSCE 4240 Introduction to Digital Processing
Prerequisite: CSCE 2100 and CSCE 2110
- CSCE 4430 Programming Languages
Prerequisite: CSCE 2100 and CSCE 2110
- CSCE 4440 Real Time Software Development
Prerequisite: CSCE 3612
- CSCE 4600 Introduction to Operating Systems
Prerequisite: CSCE 3600

Includes an Academic Certificate: yes



This supporting area, when combined with required major courses (especially CSCE 4200) aligns with the **Web Development Certificate** offered by the UNT Computer Science & Engineering department. Students who complete the necessary coursework and add the certificate to their academic plan will receive a digital **Web Development Certificate**.

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: **Game Studies and Design**

Total number of credit hours: 18

Based on current 2026 data for the Texas tech market, the top three career outcomes for students Combining their IT degree with this supporting Game programming: leads top positions in Game programmer with salary

- Average entry-level: ~\$73K with a range between: \$63K – \$115K depending on skills

Courses:

Choose 6 Courses from the following:

- CSCE 2210 Introduction to Visual Scripting for Games.
Prerequisite(s): CSCE 1010
- CSCE 4210 - Game Programming I
Prerequisite: CSCE 2110
- CSCE 4220 - Game Programming II
Prerequisite(s): CSCE 4210, CSCE 4255
- CSCE 4230 - Introduction to Computer Graphics
Prerequisite(s): CSCE 2100, CSCE 2110, Math 2700,
- CSCE 4250 Topics in Game Development
Prerequisite(s): CSCE 4210
- CSCE 4255 Programming Math and Physics for Games
Prerequisite(s): CSCE 2110, MATH 2700, PHYS 1710/PHYS 1730,

- MRTS 3630 Game Studies: Players, Culture and Industry
Prerequisite(s): MRTS/CBCM major status, MRTS 1330, MRTS 2010,
- ENGL 3500 Beginning Game Writing Workshop
- ENGL 4680 Game Narrative as Literature
- MRTS 3445 Video Game Histories
Prerequisite(s): MRTS 1330, MRTS 2010



Includes an Academic Certificate: yes

This supporting area, when combined with required major courses (especially CSCE 4210, 4220, 4255, 4250, 2210, 4230) aligns with the **Game Programming Certificate** offered by the UNT Computer Science & Engineering department. Students who complete the necessary coursework and add the certificate to their academic plan will receive a digital **Game Programming Certificate**

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements



Supporting Area: **Data and Decision Sciences**

Total number of credit hours: 18

Combining your IT degree with this supporting leads to Top 2026 IT roles like **Data Scientist**: Your salary is **\$72,025 (Entry) to \$120,586 (Average)**. **Business Intelligence Analyst**: Your salary is **\$65,838 (Entry) to \$102,008 (Average)**. **Data Analyst**: Your salary is **\$71,701 (Entry) to \$91,816 (Average)**. **DB Admin Avg 108,00**.

Courses:

Pick 6 courses from the following:

- ADTA 4130 Data Analytics and Computational Statistics or Math 3680 Applied Statistics
Prerequisite(s): Math 1100 or Math 1680
- ADTA 4250: Principles of Data Visualization for Large Data
- DSCI 4330: Enterprise Applications of Business Intelligence
Prerequisite(s): BCIS 2610 or DSCI 2710
- DSCI 4510: Modeling for Business Intelligence
Prerequisite(s): DSCI 3870, BCIS 3610
- CSCE 4380: Data Mining
Prerequisite(s): CSCE 2110
- INFO 4707: Data Modeling and Data Warehousing
- INFO 4745: Information Architecture



Includes an Academic Certificate: yes

This supporting area, when combined with required major courses (especially ADTA 4130, 4250) aligns with the **Data Analytics Certificate** offered by the UNT Computer Science & Engineering department. Students who complete the necessary coursework and add the certificate to their academic plan will receive a digital **Data Analytics Certificate**

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: Enterprise Systems & Software Architecture.
Total number of credit hours: 18

Combining your IT degree with this supporting leads to *Top 2026 IT roles like **Software Architect**: Your salary is **\$136,800** (Entry) to **\$158,400** (Average), an **Enterprise Systems Developer**: Your salary is **\$112,500** (Average) to **\$144,200** (Senior). A **Systems Engineer**: Your salary is **\$105,600** (Average) to **\$128,900** (Mid-level).*

Courses:

Pick 6 courses from the following:

- BCIS 3680: Advanced Object-Oriented Programming for Business
Prerequisite(s): BCIS 3630
- BCIS 4720: Web-Based Information Technologies
Prerequisite(s): BCIS 3630
- BCIS 4610: Analysis of Business Information Systems
Prerequisite(s): BCIS 3610
- CSCE 4210 - Game Programming I
Prerequisite: CSCE 2110
- CSCE 3550 Foundation of Cybersecurity
Prerequisite(s): CSCE 2110,
- CSCE 4430: programming languages
Prerequisite(s): CSCE 2100, CSCE 2110,
- CSCE 4600: Introduction to Operating Systems
Prerequisite(s): CSCE 3600

Includes an Academic Certificate: NO

Note: All courses pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: **Computational Intelligence & Analytics**

Total number of credit hours: 18

Combining your IT degree with this supporting leads to *Top 2026 IT roles like **Machine Learning Engineer** has **Entry-Level: \$68,000 – \$95,000 (average ~\$73,000 in Texas)** **Experienced: \$138,000 – \$182,000. Bioinformatics Analyst / Engineer** with **Entry-Level: \$62,000 – \$89,000 (average ~\$70,000 - \$75,000 in Texas).** **Experienced: \$102,000 – \$144,000. Quantitative Data Analyst** with **Entry-Level: \$71,000 – \$107,000. Experienced: \$128,000 – \$184,000+***

Courses:

Pick 6 courses from the following:

- MATH 1720 Calculus II
Prerequisite(s): Math 1710
- MATH 3350 Introduction to Numerical Analysis
Prerequisite(s): Math 2700
- MATH 3410 Differential Equations I
Prerequisite(s): Math 1720, Math 1830, Math 2700
- CSCE 4110 Algorithms
Prerequisite(s): CSCE 2110
- CSCE 4115 Formal Languages, Automata and Computability
Prerequisite(s): CSCE 2100 and CSCE 2110
- CSCE 4430 Programming Languages
Prerequisite(s): CSCE 2100 and CSCE 2110
- CSCE 4650 Introduction to Compilation Techniques
Prerequisite(s): CSCE 2100, CSCE 2110 and CSCE 3600
- ADTA 4130 Data Analytics and Computational Statistics 1
Prerequisite(s): Math, 1100, Math 1680
- ADTA 4230 Data Analytics and Computational Statistics 2
Prerequisite(s): ADTA 4130, Math 3680
- ADTA 4250 Principles of Data Visualization for Large Data

Includes an Academic Certificate? yes



This supporting area, when combined with required major courses (especially ADTA 4130, 4250) aligns with the **Data Analytics Certificate** offered by the UNT Computer Science & Engineering department. Students who complete the necessary coursework and add the certificate to their academic plan will receive a digital **Data Analytics Certificate**

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: Project Management & Organizational Leadership

Total number of credit hours: 18

Combining your IT degree with this supporting leads to *Top 2026 IT roles like entry-level positions include **Project Coordinator, Junior IT Project Manager, or Scrum Team Member**. These roles start around **\$60,000–\$75,000 per year**, with potential growth to **\$90,000–\$110,000** after a few years of experience and professional certifications. (PMP cert/PMI, Agile/Scrum Certification prep, tools (**JIRA, MS Project, Trello**)).*

Courses:

Pick 6 courses from the following:

- BCIS 3610 – Basic Information Systems
Prerequisite(s): BCIS 2610
- BCIS 4690 Information Technology Management
Prerequisite(s): BCIS 4610
- BCIS 4730 International Issues of Information
Prerequisite(s): BCIS 3610
- MGMT 3330 – Communicating in Business
- MGMT 3721 – Essentials of Organizational Behavior for Non-Business Majors
- MGMT 3820 Management Concepts
- LTEC 4060 – Advanced Digital Project Strategies
- LTEC 3640 Leadership and Team Leadership

Includes an Academic Certificate: NO

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: Digital Retail Marketing
Total number of credit hours: 18

Combining your IT degree with this supporting prepares you for roles such **Digital Marketing Specialist** — \$55,000–\$75,000, **Ecommerce Specialist** — \$60,000–\$80,000. **SEO/SEM Analyst** — \$60,000–\$85,000, **Marketing Data Analyst** — \$65,000–\$90,000

Courses:

Pick 6 courses from the following:

- DBUS 2050 Introduction to Digital Retailing
- DBUS 2080 Ecommerce Platform Development in Digital Retailing
- DBUS 3090 – Digital Channel Strategies
- DBUS 3190 – Digital Retail Marketing Campaigns
Prerequisite(s): DBUS 2050
- DBUS 4070 – Retail Web Analytics
Prerequisite(s): DBUS 2050, MDSE 2700
- MKTG 3651 – Foundations of Marketing Practice for Non-Business Majors
- MRTS 3525 Content Development for Digital Media
Prerequisite(s): MRTS 2210

- CSCE 3420 – Internet Programming
Prerequisite(s): CSCE 2100 and CSCE 2110
- CSCE 4240 – Introduction to Digital Image Processing
Prerequisite(s): CSCE 2100 and CSCE 2110

Includes an Academic Certificate? NO

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: Human-Centered AI & UX
Total number of credit hours: 18

Combining your IT degree with Applied Psychology prepares you to *Top positions in UX ‘Design Researcher, Human-Computer Interaction Specialist, Behavioral Data Analyst, AI Product Analyst, and Human Factors Specialist, U.S. salaries range from \$60,000 to \$120,000+ per year depending on role and experience.*

Courses:

Pick 6 courses from the following:

- PSYC 1630- General Psychology I
- PSYC 1650 - Biological Psychology
- PSYC 3000 - Positive Psychology
Prerequisite(s): PSYC- 1630 or PSYC- 1650
- PSYC 3620 - Developmental Psychology
Prerequisite(s): PSYC 1630
- CSCE 3201 – Applied Artificial Intelligence
Prerequisite(s): MATH 1650
- CSCE 4205 – Introduction to Machine Learning
Prerequisite(s): CSCE 2110
- CSCE 4300 – Intro to Big Data and Data Science
Prerequisite(s): CSCE 2110
- DSCI 3710 – Business Statistics with Spreadsheets
Prerequisite(s): DSCI 2710



Includes an Academic Certificate: yes

This supporting area, when combined with required major courses (especially CSCE 3201, CSCE 4205, CSCE 4300) aligns with the **Artificial Intelligence Certificate** offered by the UNT Computer Science & Engineering department. Students who complete the necessary coursework and add the certificate to their academic plan will receive a digital **Artificial Intelligence Certificate**

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: Digital Advertising Technology
Total number of credit hours: 18

Combining your IT degree with this supporting can pursue roles such as:

- **Digital Marketing Specialist / Coordinator** — \$50,000–\$70,000/yr
- **Social Media & Content Strategist** — \$55,000–\$75,000/yr
- **Web Analytics / Data Analyst** (Campaign performance analysis) —\$60,000–\$85,000/yr
- **UX/Interaction Designer** (entry level) —\$65,000–\$90,000/yr
- **Digital Campaign Manager / Advertising Account Manager** —\$60,000–\$90,000/yr.
Salaries vary by location, experience, and industry,

Courses

Pick 6 courses from the following:

- ADVG 1000 – Principles of Advertising and Brand Strategy
- ADVG 2000 – Digital Advertising Tools and Analytics
- CSCE 3201 – Applied Artificial Intelligence
Prerequisite(s): Math 1650
- ADVG 3200 – Advertising Account Management
Prerequisite(s): ENGL 1310, 1320 or TECM 1700 and TECM 2700, ADVG 1000 and 2000
- MKTG 4120 – Consumer Behavior
Prerequisite(s): MKTG 3650 or MKTG 3651
- ADVG 3500 – Advertising Media Buying and Planning
Prerequisite(s): ENGL 1310, 1320 or TECM 1700 and TECM 2700, ADVG 1000 and 2000
- CSCE 3214 - Software Development for Artificial Intelligence
Prerequisite(s): Math 1650

Includes an Academic Certificate? NO

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: **Educational Technology and Computing**

Total number of credit hours: 18

Combining your IT degree with this supporting can get positions in: **Instructional Technology Specialist, Learning Experience Designer, Educational Data Analyst, Educational Software Developer, and Technology Integration Specialist**- supporting tech implementation in education or corporate training. U.S. salaries range from about **\$55,000–\$75,000** for entry-level specialists to **\$80,000–\$110,000**.

Courses:

Pick 6 courses from the following:

- LTEC 2600 - Digital Tools in Education
- LTEC 3200- Leadership & Ethical Practices for STEM Professionals
- LTEC 4160- Advanced Computer Applications in Education and Training
- LTEC 4200 – Performance Improvement in Education & Training
- CSCE 3201 – Applied Artificial Intelligence
Prerequisite(s): Math 1650
- CSCE 3214 - Software Development for Artificial Intelligence
Prerequisite(s): Math 1650
- CSCE 4205 – Machine Learning
Prerequisite: CSCE 2110
- LTEC 4040 – Organization Development & Performance Improvement
- ADTA 4130- Data Analytics and Computational Statistics 1
Prerequisite(s): Math 1100 or MATH 1680 or equivalent

Includes an Academic Certificate: yes



This supporting area, when combined with required major courses (especially CSCE 3201, CSCE 3214, CSCE 4205) aligns with the **Artificial Intelligence Certificate** offered by the UNT Computer Science & Engineering department. Students who complete the necessary coursework and add the certificate to their academic plan will receive a digital **Artificial Intelligence Certificate**

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: **Learning Technologies Specialist in STEM**

Total number of credit hours: 18

Combining your IT degree with this supporting can get positions in: **STEM Instructional Technologist, Learning Experience Designer (STEM), STEM Curriculum Developer, Educational Data Analyst (STEM-focused), and EdTech Project Coordinator**. U.S. salaries range from \$55,000–\$70,000 for entry-level positions, \$70,000–\$90,000 for mid-level roles, and \$90,000–\$110,000+ for senior or specialized positions.

Courses:

Pick 6 courses from the following:

- LTEC 3000 - Foundations of Learning Technologies in STEM
- LTEC 3100 - New Horizons for Learning Technologies in STEM
- LTEC 3440 - Introduction to Instructional Technology
Prerequisite(s): LTEC 1100
- LTEC 4200 - Performance Improvement in Education and Training
- LTEC 4630 - Evaluation, Measurement and ROI
- CSCE 3201 Applied Artificial Intelligence
Prerequisite(s): Math 1650
- CSCE 3214 -Software Development for AI.
Prerequisite(s): Math 1650
- ADTA 4130- Advanced Data Analytics
Prerequisite(s): Math 1100 or MATH 1680 or equivalent
- CSCE 4205 – Machine Learning
Prerequisite(s): CSCE 2110



Includes an Academic Certificate: yes

This supporting area, when combined with required major courses (especially CSCE 3201, CSCE 3214, CSCE 4205) aligns with the **Artificial Intelligence Certificate** offered by the UNT Computer Science & Engineering department. Students who complete the necessary coursework and add the certificate to their academic plan will receive a digital **Artificial Intelligence Certificate**

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: Sports Entertainment and Analytics
Total number of credit hours: 18

*Combining your IT degree with this supporting can get you positions in: **Sports Data Analyst** (\$72k – \$95k), **Performance Analyst (Sports Teams/Clubs)** – \$70k–\$95k, **Marketing/Data Analytics Specialist (Entertainment/Sports)** – \$68k–\$100k, **Operations Analyst (Sports/Entertainment Venues)** – \$65k–\$90k, **Fan Engagement Specialist** (\$65k – \$88k)*

Courses:

Pick 6 courses from the following:

- SENM 4230 - International Brand Strategies in the Sport Entertainment Industry
Prerequisite(s): MKTG 3650
- SENM 4325- Fan Engagement Strategies in the Sport Entertainment Industry
- SENM 4870 - Business Planning in the Sports Entertainment Industry
- CSCE 3201 Applied Artificial Intelligence
Prerequisite(s): Math 1650
- JOUR 4270 - Strategic Social Media
- INFO 4709 – Data Visualization
- INFO 4206: Information Management & Security
- CSCE 4205 – Machine Learning
Prerequisite(s): CSCE 2110

Includes an Academic Certificate: yes



This supporting area, when combined with required major courses (especially CSCE 3201, CSCE 4205) aligns with the **Artificial Intelligence Certificate** offered by the UNT Computer Science & Engineering department. Students who complete the necessary coursework and add the certificate to their academic plan will receive a digital **Artificial Intelligence Certificate**

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: **Hospitality Technology Management**

Total number of credit hours: 18

*Combining your IT degree with this supporting can land you positions in: **Hospitality Technology Specialist, Operations/Data Analyst (Hospitality), IT Systems Coordinator for Hotels/Resorts, E-Commerce & Digital Experience Coordinator, or Hospitality Revenue/Analytics Specialist.** U.S. salaries range from \$50,000–\$65,000 for entry- and \$85,000–\$100,000+ for specialized or managerial technology positions in larger hotel/resort or tech-enabled hospitality companies.*

Courses:

Pick 6 courses from the following:

- HMGT 1500 - Orientation to the Hospitality Industry
- HMGT 2280 – Hospitality Accounting 1
- HMGT 2480 – Hospitality Accounting 2
- HMGT 3200 – Hospitality Industry Law
- CSCE 3214 -Software Development for AI.
Prerequisite(s): Math 1650
- LTEC 3260 – Web Authoring
Prerequisite(s): LTEC 2100
- HMGT 3700 – Hotel Operations
- LTEC 4160- Advanced Computer Application in Education & Training
- LTEC 4630- Evaluation, Measurement and ROI
- INFO 4670 – Data Analysis and Knowledge Discovery
- HMGT 4490- Hospitality Revenue Management
Prerequisite(s): HMGT 3700
- INFO 4745 – Information Architecture

Includes an Academic Certificate: **yes**



This supporting area, when combined with required major courses (especially HMGT 2280, HMGT 2480, HMGT 4490) aligns with the **Hospitality Finance and Accounting Management certificate** offered by the UNT College of Merchandising, Hospitality and Tourism.

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: Applied Heritage Management
Total number of credit hours: 18

Courses:

Pick 6 courses from the following:

- ARCH 2800 – Archaeological Science
- GEOG 3500 – Introduction to Geographic Information Systems
- AMDS 3210 – Public Engagement in Heritage Management
Prerequisite(s): ENGL 1310 and ENGL 1320
- AMDS 3220 – Heritage Museum Studies
- AMDS 3230 – Heritage Travel
- AMDS 3240 – Heritage Laws and Ethics

Includes an Academic Certificate? NO

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.

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Supporting Area: **Music Technology**

Total number of credit hours: 18

*Combining your IT degree with this supporting lead to roles in: **Audio Software Developer, Sound Designer / Audio Engineer, Music Data Analyst, Interactive Media Developer, and AI Music Systems Engineer**—U.S. salaries range from \$55,000–\$75,000 for entry-level and \$95,000–\$120,000+ for specialized software development or AI-focused audio engineering roles.*

Courses:

- **Pick 6 courses from the following:** (Programming for Audio / DSP course)
 - MUCP 3670 – Introduction to Electroacoustic Music
Prerequisite(s): 6 credit hrs. of MUCP courses with grade B or better
 - PHYS 1270 – Science and Tech of Musical Sound
 - PHYS 3510 – Physics, Computation, and Software Applications
 - MUAE 3100 – Fundamentals of Digital Audio Workstations
 - MUAE 3200 – Digital Audio Workstations
 - CSCE 3214 – Software Development for AI
Prerequisite(s): Math 1650
 - ADTA 4130 Data Analytics and Computational Statistics or Math 3680 Applied Statistics
Prerequisite(s): Math 1100 or Math 1680
 - PHYS 3910 – Intermediate Computational Modeling of Physical Systems
Prerequisite(s): PHYS 3510, PHYS 1520 or PHYS 2220

 - MUCP 4690 – Topics in Computer Music Media (*specialized tech/media electives*)
Prerequisite(s): MUCP 3670
 - MUEN 4595 (1) and MUCP 4590 (2) Intermedia Performance Arts (co-requisites)
 - MUAC 1530 (2), 1535 (2), 1540 (2) and 3540 (2) Electronics Concentration Lessons
 - MULB 1822 (1) Electronics Ensemble

Includes an Academic Certificate? NO

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: IT & Criminal Justice
Total number of credit hours: 18

Combining your IT degree with this **Supporting** can land you positions in: **Digital Forensics Analyst, Cybercrime Investigator, Criminal Data Analyst, Threat Intelligence Analyst, and IT Specialist in Law Enforcement**. U.S. salaries range from \$55,000–\$70,000 for entry-level analysts and \$95,000–\$120,000+ for senior forensic analysts, cybersecurity specialists, or leadership positions in law enforcement technology units.

Courses:

Pick 6 courses from the following:

- CJUS 2100 – Crime and Justice in the United States
- CJUS 3310 – Organized & Consensual Crime
- CJUS 3330 – Intro to Criminalistics
- CJUS 3340 – Computer Crime
- ADTA 4130 Data Analytics and Computational Statistics or Math 3680 Applied Statistics
Prerequisite(s): Math 1100 or Math 1680
- CSCE 4205 – Machine Learning
Prerequisite(s): CSCE 2110
- INFO 4710 – Information Technology Management (*managing IT systems in law enforcement*)
- CJUS 3600 – Criminology (*theoretical foundation for advanced analytics*)
- CJUS 4250 – Law and Social Problems (*societal/legal context in IT-enabled investigations*)

Includes an Academic Certificate? NO

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: Pre-MBA (General Business)

Total number of credit hours: 18

*Combining your IT degree with the **Pre-MBA (General Business)** supporting area can lead to positions such as **Business Analyst, Financial Analyst, Marketing Analyst, Operations Analyst, IT Business Consultant, or Management Trainee**. U.S. salaries range from **\$55,000–\$70,000** for entry-level analysts, **\$70,000–\$90,000** and **\$90,000–\$120,000+** for senior consultants, managers, or MBA-prepared professionals.*

Courses:

Pick 6 courses from the following:

- Econ 1100 – Principles of Microeconomics
- ACCT 2010 – Accounting Principles I
- ACCT 2020 – Accounting Principles II
Prerequisite(s): ACCT 2010, ECON 1100, MATH 1100 or MATH 1180
- BLAW 3430 – Legal & Ethical Environment of Business
Prerequisite(s): psci 2306 & psci 2305
- FINA 3770 – Finance
Prerequisite(s): ACCT 2010, ACCT 2020
- MKTG 3651 – Foundations of Marketing Practice
- BCIS 2610 – Intro to Computers in Business
- INFO 4670 – Data Analysis and Knowledge Discovery

Includes an Academic Certificate? NO

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: Digital Supply Chain Management
Total number of credit hours: 18

*Combining your IT degree with this supporting can lead to positions in: **Logistics Analyst, Supply Chain Data Analyst, Transportation Planner, Warehouse Automation Specialist, Supply Chain Technology Consultant, or Operations Data Specialist.** U.S. salaries range from \$55,000–\$70,000 for entry-level analysts and \$90,000–\$120,000+ for senior supply chain technology specialists or consultants in large logistics, manufacturing, or e-commerce companies.*

Courses:

Pick 6 courses from the following:

- LSCM 4530 – E-Logistics in Supply Chain Management
- LSCM 4540 – Logistics Application of Enterprise Resource Planning Systems
- LSCM 4560 – Business Transportation and Management
- LSCM 3960 – Logistics & Supply Chain Management
- LSCM 4360 – Global Alliances and International Supply Chain Management
pre-req LSCM 3960
- ADTA 4130- **Advanced Data Analytics**
Prerequisite(s): MATH 1100, MATH 1680
- CSCE 3214 – Software Development for AI (*AI in warehousing, predictive logistics, automation*)
Prerequisite(s): MATH 1650

- LSCM 4510 – Logistics & Business Analysis
Prerequisite(s): LSCM 3960
- INFO 4670 – Data Analysis and Knowledge Discovery (*for ERP or supply chain data insights*)

Includes an Academic Certificate? NO

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: **Business Information Systems**

Total number of credit hours: 18

*Combining your IT degree with this supporting can lead to positions in: **Business Analyst, Systems Analyst, IT Consultant / Technology Consultant, Database Analyst / Junior Database Administrator, Business Intelligence (BI) Analyst, and IT Security Analyst (Entry-Level)**, with typical U.S. starting salaries ranging from **\$60,000 to \$95,000**.*

Courses:

Pick 6 courses from the following:

- BCIS 3610 – Basic Information Systems
Prerequisite(s): BCIS 2610
- BCIS 3620 - Mainframe Concepts
Prerequisite(s): BCIS 2610
- BCIS 3630 – Object-Oriented Programming for Business
Prerequisite(s): BCIS 2610
- BCIS 4610 – Analysis of Business Information Systems
Prerequisite(s): BCIS 3610
- BCIS 3615 – Visual Display of Business Information
Prerequisite(s): BCIS 2610
- BCIS 4750 – Blockchain for Business
- INFO 4745- Information Architecture
- BCIS 4780- Cloud Computing for Business
Prerequisite(s): BCIS 3610

Includes an Academic Certificate? NO

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: Manufacturing Engineering Technologies
Total number of credit hours: 18

Combining your IT degree with this supporting can lead to positions in: Manufacturing Systems Analyst, Digital Manufacturing Engineer, or IT Systems Specialist. U.S Salary: Starting at \$71,000 – \$88,000 in DFW, with senior roles exceeding \$130,000.

Courses:

Pick 6 courses from the following:

- MFET 3110: Machining Principles and Processes
Prerequisite(s): MATH 150 or MATH 1710
- MFET 4190: Quality Assurance
Prerequisite(s): MATH 1720
- MFET 4200: Engineering Cost Analysis
Prerequisite(s): MATH 1720
- MFET 4210 - CAD/CAM System Operations
Prerequisite(s): MFET 3110, ENGR 1304
- MFET 4220 - CNC Programming and Operation
Prerequisite(s): MFET 4210
- MEET 3750 - Digital Manufacturing
*Corequisite: ENGR 3450**
- ENGR 3450 - Engineering Materials
Prerequisite(s): ENGR 2332 and PHYS 1710. CHEM 1410/PHYS 1430 or CHEM 1415/CHEM 1435



Includes an Academic Certificate: yes

This supporting area aligns with the [Manufacturing Engineering Technologies Certificate](#) offered by the **UNT Mechanical Engineering department**. Students who complete the necessary coursework and add the certificate to their academic plan will receive a **digital Security Certificate**.

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: **Financial Technology**
Total number of credit hours: 18

Combining your IT degree with this supporting can lead to positions in: FinTech Software Engineer, Financial Data Analyst, Blockchain Developer, or FinTech Product Manager. U.S Salary: Starting at \$75,000 – \$95,000, with senior roles exceeding \$180,000.

Courses:

Pick 6 courses from the following:

- CSCE 4575- Blockchain & Applications
Prerequisite(s): CSCE 3600
- CSCE 4205- Introduction to Machine Learning
Prerequisite(s): CSCE 2110
- CSCE 3201 – Applied Artificial Intelligence
Prerequisite(s): Math 1650
- ADTA 4130- Data Analytics and Computational Statistics 1
- FINA 3600- Applied Topics in Banking
- FINA 3770 - Finance
Prerequisite(s): ACCT 2010 and ACCT 2020
- FINA 4300- Financial Statement Analysis
Prerequisite(s): FINA 3770

Includes an Academic Certificate? NO

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: **Health Information Technology**
Total number of credit hours: 18

Combining your IT degree with this supporting can lead to positions in: Health Informatics Specialist, Clinical Systems Analyst, Healthcare Data Analyst, or Electronic Health Records (EHR) Specialist. U.S Salary: Starting at \$65,000 – \$85,000, with senior roles exceeding \$130,000.

Courses:

Pick 6 courses from the following:

- HINF 4506- Artificial Intelligence in Health,
- INFO/HINF 4637- Introduction to Health Informatics,
- HINF 4770- Introduction to Health Data Analytics
- CSCE 4575 - Blockchain and Applications.
Prerequisite(s): CSCE 3600
- CSCE 4380 – Data Mining
Prerequisite(s): CSCE 2110
- INFO 4709- Data Visualization
- BIOL 1500 - Medical Terminology

Includes an Academic Certificate? NO

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: Applied Psychology and Human Behavior
Total number of credit hours: 18

*Combining your IT degree with this supporting area in **Applied Psychology and Human Behavior** can lead to positions in: UX Researcher, Human Factors Specialist, Behavioral Data Analyst, Organizational/HR Analyst, or AI Human Behavior Specialist.*
U.S. Salary: Starting at \$65,000 – \$85,000, with senior roles exceeding \$120,000 – \$140,000.

Courses:

Pick 6 courses from the following:

- PSYC- 1630- General Psychology I
- PSYC- 1650 - Biological Psychology
- PSYC -3100 – Social Psychology
Prerequisite(s): PSYC 1630 or PSYC 1650
- PSYC 3620 - Developmental Psychology
Prerequisite(s): PSYC 1630
- PSYC 3520 – Introduction to Industrial Organizational Psychology
Prerequisite(s): PSYC 1630
- ADTA 4130- Data Analytics and Computational Statistics 1
- CSCE 3214- Software Development for Artificial Intelligence
Prerequisite(s): Math 1650
- PSYC 2580 - Health Psychology

Includes an Academic Certificate? NO

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: Learning Technologies Specialist in STEM
Total number of credit hours: 18

Courses:

Pick 6 courses from the following:

- LTEC 3000 - Foundations of Learning Technologies in STEM
- LTEC 3100 - New Horizons for Learning Technologies in STEM
- LTEC 3440 - Introduction to Instructional Technology
Prerequisite(s): LTEC 1100
- LTEC 4200 - Performance Improvement in Education and Training
- LTEC 4630 - Evaluation, Measurement and ROI
- CSCE 3201 Applied Artificial Intelligence
Prerequisite(s): Math 1650
- CSCE 3214 -Software Development for AI.
Prerequisite(s): Math 1650

Includes an Academic Certificate? NO

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: Technical Communications
Total number of credit hours: 18

*Combining your IT degree with this supporting area in **Technical Communications** can lead to positions in: Technical Writer, Documentation Specialist, UX Writer or Content Strategist.
U.S. Salary: Starting at \$60,000 – \$80,000, with senior roles exceeding \$110,000 – \$130,000.*

Courses:

Pick 6 courses from the following:

- TECM 3100 Visual Technical Communications
Prerequisite(s): TECM 2700
- TECM 4100 Proposal Writing
Prerequisite(s): TECM 2700
- TECM 4180 Advanced Technical Communications
Prerequisite(s): TECM 2700
- TECM 4190 Technical Editing
Prerequisite(s): TECM 2700
- TECM 4250 Writing Technical Manuals and Procedures
Prerequisite(s): TECM 2700
- TECM 4300 usability and User Experience
Prerequisite(s): TECM 2700, TECM 3010
- TECM 4400 Advanced Information Design In Technical Communication
Prerequisite(s): TECM 3200

Includes an Academic Certificate: yes



This supporting area aligns with the **Technical Communications Certificate** offered by the UNT.

TECM 2700, plus Nine additional hours in TECM courses at the 3000 or 4000 level.

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: *Geographic Information*
Total number of credit hours: 18

Courses:

Pick 6 courses from the following:

- GEOG 3500 Introduction to Geographic Information Systems
- GEOG 4560 Introduction to Python Programming
- GEOG 4550 Advanced Geographic Information Systems
Prerequisite(s): GEOG 3500
- GEOG 4590 Advanced GIS Programming
Prerequisite(s): GEOG 4560
- GEOG 4525 Using LiDAR Data in GIS
Prerequisite(s): GEOG 3500
- GEOG 4530 Remote Sensing and Digital Image Processing
Prerequisite(s): GEOG 3500
- GEOG 4540 Intro to Enterprise GIS Applications

Includes an Academic Certificate: **yes**



This supporting area, when combined with required major courses (especially GEOG 3500, GEOG 4560, GEOG 4550, GEOG 4590) aligns with the *Geographic Information Systems Certificate*.

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: *Location Intelligence*
Total number of credit hours: 18

Courses:

Pick 6 courses from the following:

- ECON 1100 Principles of Microeconomic
- GEOG 3500 Intro to Geographic Information Systems
- GEOG 4560 Intro to Python Programming
- GEOG 4220 Applied Retail Geography
- ECON 1110 Principles of Macroeconomics
- ECON 3200 Behavioral Economics for non-Economic Majors
- ECON 4870 Intro to Econometrics

Prerequisite(s): ECON 4630 or MATH 3680 or DSCI 3710 or MATH 1190 or MATH 1710

Includes an Academic Certificate: *yes*



This supporting area, when combined with required major courses (especially ECON 1100, GEOG 3500, GEOG 4560) aligns with the *Location Intelligence Certificate*.

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements



Supporting Area: Digital Media Studies
Total number of credit hours: 18

Courses:

Pick 6 courses from the following:

- COMM 3420 Communications and New Technology
Prerequisite(s): COMM 3010
- MRTS 3620 Digital Media and Society
Prerequisite(s): MRTS 1330, MRTS 2010
- TECM 1500 New Media Experience
- COMM 3820 Social Media Perspectives
Prerequisite(s): COMM 3010
- COMM 4320 Communication and Virtual Gaming
Prerequisite(s): COMM 3010
- JOUR 3270 Media Entrepreneurship and Innovation
- JOUR 4270 Strategic Social Media

Includes an Academic Certificate: yes



This supporting area, when combined with required major courses (especially COMM 3420, MRTS 3620, TECM 1500) aligns with the ***Digital Media Studies Certificate***

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements



Supporting Area: Cybersecurity
Total number of credit hours: 18

Courses:

Pick 6 courses from the following:

- CSCE 4600 Intro to Operating Systems
Prerequisite(s): CSCE 3600
- CSCE 3560 Cloud Security
Prerequisite(s): CSCE 3600 & CSCE 3550
- CSCE 4050 Applications of Cryptography
Prerequisite(s): CSCE 2100 & CSCE 2110
- CSCE 4357 Database Systems Security
Prerequisite(s): CSCE 4350
- CSCE 4555 Computer Forensics
Prerequisite(s): CSCE 2110
- CSCE 4565 Secure Software Development
Prerequisite(s): CSCE 3550
- CSCE 4570 Information Privacy
Prerequisite(s): CSCE 3550
- CSCE 4575 Blockchain and Applications
Prerequisite(s): CSCE 3600
- CSCE 4890 Directed Study in Cybersecurity Topics

Includes an Academic Certificate: yes



This supporting area, when combined with required major courses (especially CSCE 4357, CSCE 3560, CSCE 4555, CSCE 4565, CSCE 4570) aligns with the ***Cybersecurity certificate*** ***And the Secure Software certificate***

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements



Supporting Area: *Water Resource Management*
Total number of credit hours: 18

Courses:

Pick 6 courses from the following:

- GEOG 2110 Foundations of Geographic Research
- GEOG 2180 Geosystems, Environment and Society
Prerequisite(s): GEOG 1710
- GEOG 3800 Weather and Climate
- GEOG 4750 Surface Water Hydrology
Prerequisite(s): GEOG 2180 and MATH 1680
- GEOL 3010 Environmental Geography
- GEOL 4850 Intro to Groundwater Hydrology
Prerequisite(s): GEOG 2110, GEOG 2180, MATH 1680
- PHIL 4650 Philosophy of Water

Includes an Academic Certificate: *yes*



This supporting area, when combined with required major courses (especially GEOG 3800, GEOG 4750, GEOL 4850) aligns with the *Water Resource certificate*

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements



Supporting Area: *Urban Planning*
Total number of credit hours: 18

Courses:

Pick 6 courses from the following:

- ANTH 4765 Urban Beings
- GEOG 4210 Urban Geography
- ANTH 4760 Inequality, Social Justice and the City
- GEOG 3010 Economic Geography
- PADM 3210 Population Demographics and Urban Planning
- PADM 4250 Community Development and Collaborative Planning
- SOCI 3300 Urban Sociology
- SOCI 3800 Sociology of Work
- SOCI 4350 Community Organization

Includes an Academic Certificate: *yes*



This supporting area, when combined with required major courses (especially ANTH 4765, GEOG 4210) aligns with the *Urban Studies Certificate*

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements



Supporting Area: Theatre Technologies
Total number of credit hours: 18

Courses:

Pick 6 courses from the following:

- THEA 1030 Lighting and Sound I
- THEA 1046 Stagecraft I
- THEA 3130 Lighting II
Prerequisite(s): THEA 1030
- THEA 4920 Theatre Practicum
- THEA 4920 Theatre Practicum (repeat for credit)
- THEA 3146 Stagecraft II
Prerequisite(s): THEA 1046
- THEA 4190 Sound Production and Design for the Theatre
Prerequisite(s): THEA 1030

Includes an Academic Certificate: yes



This supporting area, when combined with required major courses (especially THEA 1030, THEA 1046, THEA 3130, THEA 4920, THEA 3146) aligns with the ***Theatre Technologies Certificate***.

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements



Supporting Area: *Statistics*
Total number of credit hours: 18

Courses:

Pick 6 courses from the following:

- MATH 1720 Calculus II
Prerequisite(s): MATH 1710
- MATH 2730 Multivariable Calculus
Prerequisite(s): MATH 1720 or MATH 1830
- MATH 3680 Applied Statistics
Prerequisite(s): MATH 1710, MATH 1720
- MATH 4610 Probability
Prerequisite(s): MATH 2730, MATH 3680
- MATH 4650 Statistics
Prerequisite(s): MATH 4610, MATH 3680
- ECON 4870 Introduction to Econometrics
Prerequisite(s): ECON 4630 or MATH 3680 or DSCI 3710, MATH 1190 or MATH 1710
- ECON 4875 Empirical Linear Modeling
Prerequisite(s): ECON 4870

Includes an Academic Certificate: *yes*



This supporting area, when combined with required major courses (especially *MATH 3680*, *MATH 4610*, *MATH 4650*, *ECON 4870*, *ECON 4875*) aligns with the ***Statistics Certificate Certificate***.

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements



Supporting Area: **Legal Studies**

Total number of credit hours: 18

Courses:

Pick 6 courses from the following:

- CJUS 3210 Judicial and Legal Systems
- COMM 2140 Advocating in Public
- COMM 3840 Argumentation and Debate
Prerequisite(s): COMM 2140
- PADM 4000 Mediation
- PADM 4050 Negotiation
- BLAW 4450 Corporation Law or CJUS 3201 Criminal Law
- PHIL 3120 Social and Political Philosophy

Includes an Academic Certificate: **yes**



This supporting area, when combined with required major courses (especially CJUS 3210, COMM 2140, COMM 3840,) aligns with the *Legal Studies Certificate*

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements



Supporting Area: Entrepreneurship
Total number of credit hours: 18

Courses:

Pick 6 courses from the following:

- MGMT 3850 Foundations of Entrepreneurship
- MGMT 4100 Business Planning for Entrepreneurs
Prerequisite(s): MGMT 3850
- MGMT 4210 E-Management in Digital Economy
- MGMT 4235 Social Entrepreneurship
- MGMT 4335 Technology and Innovation Management
- MGMT 4560 Topics in Entrepreneurship
- MGMT 4710 Family Entrepreneurship
Prerequisite(s): MGMT 3850

Includes an Academic Certificate: yes



This supporting area, when combined with required major courses (especially *MGMT 3850*, *MGMT 4100*, *MGMT 4210*, *MGMT 4235*, *MGMT 4355*, *MGMT 4560*, *MGMT 4710*) aligns with the ***Entrepreneurship and Enterprise Management Certificate***

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements



Supporting Area: **Social Justice**

Total number of credit hours: 18

Pick 6 courses from the following:

ANTH 4550 Race, Ethnicity and Identity
ANTH 4760 Inequality, Social Justice and the City

Choose 1 from:

- ANTH 3130 - African American Anthropology
- ANTH 3140 - Latinos in the U.S.
- ANTH 4060 - Community Engagement through Action Research
- ANTH 4130 - Anthropology of Non-Governmental Organizations
- ANTH 4210 - Culture and Human Sexuality
- ANTH 4310 - Citizenship, Borders and Belonging in the United States
- ANTH 4400 - Environmental Anthropology
- ANTH 4720 - Human Rights Anthropology

Choose 3 from

- CJUS 3500 - Diversity Issues in Criminal Justice
- CJUS 3600 - Criminology
- CJUS 4250 - Law and Social Problems
- COMM 3260 - Storytelling, Narrative and Everyday Life
- COMM 4140 - Gender and Communication
- PHIL 4740 - Environmental Justice
- PSCI 3103 - U.S. Immigration Politics
- PSCI 4210 - Constitutional Law: Rights and Liberties
- PSCI 4520 - International Human Rights
- PSCI 4823 - International Criminal Tribunals and War Crimes
- SOCI 3330 - Social Inequality and Stratification

Includes an Academic Certificate: **yes**



This supporting area, when combined with required major courses aligns with the ***Social Justice Certificate***

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements



Supporting Area: **Risk and Insurance**

Total number of credit hours: 18

Courses:

Pick 6 courses from the following:

Courses:

- RMIN 3100 Intro to Risk Management and Insurance
- RMIN 4600 Corporate Risk Management
- RMIN 4200 Life Insurance
- RMIN 4300 Property/Liability Risk Management and Insurance
Prerequisite(s): RMIN 2500, RMIN 3100
- RMIN 4310 Insurance Company Operations
- RMIN 4400 Retirement Planning and Employee Benefits
- RMIN 4500 Estate Planning

Includes an Academic Certificate: yes



This supporting area, when combined with required major courses aligns with the ***Risk Management and Insurance Certificate***.

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements



Supporting Area: Anthropology

Total number of credit hours: 21

Courses:

Pick 6 courses from the following:

- ANTH 2300 Culture and Society
- ANTH 4000 Applied Anthropology
- ANTH 4110 Design Anthropology
- ANTH 4200 Health, Healing and Culture: Medical Anthropology
- ANTH 4230 Psychological Anthropology
- ANTH 4400 Environmental Anthropology
- ANTH 4720 Human Rights Anthropology

Includes an Academic Certificate: yes



This supporting area, when combined with required major courses aligns with the *Applied Anthropology Certificate*

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements



Supporting Area: Logistics
Total number of credit hours: 18

Courses:

Pick 6 courses from the following:

- LSCM 4530 – Logistics in Supply Chain Management
- LSCM 4540- Logistics Application of Enterprise Resource Planning Systems
- LSCM 4560- Business Transportation Management
- LSCM 3960- Logistics and Supply Chain Management minor
- LSCM 4360- Global Alliances and International Supply Chain Management
Prerequisite(s): LSCM 3960
- LSCM 4510- Logistics and Business Analysis
Prerequisite(s): LSCM 3960
- LSCM 4860 Advanced Logistics Management
Prerequisite(s): LSCM 3960

Includes an Academic Certificate? NO

Note: All pre-requisites must be completed. Generally, any Pre-requisites can also be used in the supporting area unless they are required in another portion of the overall degree requirements.



Supporting Area: **Community College associate degree Transfers**

Total number of credit hours: 18

Courses:

18 hours of related coursework can be transferred from any Community College Associates Degree or single or multiple certificate programs into the supporting area. Typical examples would include CISCO Certification Programs, Network Associates Degrees, Web Design programs, technical support Programs, Health Informatics, Biotech, and many others. A CENG or CSE advisor can help you with your specific course set.

Below are some examples from DFW area Community Colleges:

AA/AS and Fields of Study in:

- Business, Criminal Justice
- Engineering
- CS/IT
- Electrical Engineering

AAS and Certificates in:

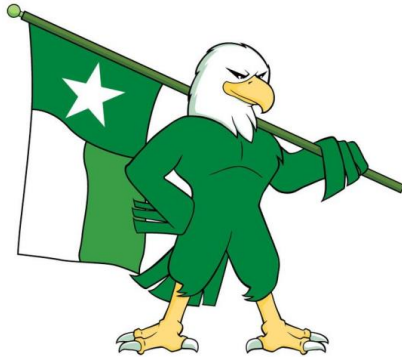
- Animation
- Information systems
- Cyber Security
- Robotics and Automation Technology
- Web Development
- Biotechnology
- Business Management
- Cloud Computing
- Computer Networking
- Communications Design
- Database Development
- Electrical Engineering Technology
- Geographic Information Systems
- Health Information Management



Supporting Area: Design your own
Total number of credit hours: 18

Courses:

A 18-hour custom supporting area can also be created by a student in consultation with an advisor. If the course set has some relationship between the courses such that we can give it meaningful title, then it will likely be approved.



END

