

# Bachelor of Science in Information Technology (BSIT) Supporting Area Options 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: 21

*Includes an Academic Certificate?*



Courses:

- CSCE 4127 Digital Logic and Computer Organization Concepts
- CSCE 3550 Intro to Computer Security
- CSCE 4560 Secure Electronic Commerce
- CSCE 4600 Intro to Operating Systems
- Pick 3:
  - CSCE 4530 Computer Network Design
  - CSCE 3520 Data Communications
  - CSCE 4520 Wireless Networks and Protocols
  - CSCE 4565 Secure Software Systems
  - CSCE 3560 Cloud Security
  - CSCE 4050 Applications of Cryptography
  - CSCE 4570 Information Privacy
  - CSCE 4575 Blockchain and Applications
  - CSCE 4555 Computer Forensics
  - CSCE 4520 Intro to Wireless Communications (needs MATH 2730)

Note: Some courses may have pre-requisites that 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: 21

*Includes an Academic Certificate?*



**YES**

***Artificial Intelligence Certificate***

Choose 7 Courses from:

- CSCE 3201 Applied AI
- CSCE 4201 Intro to AI
- CSCE 3214 Software Development for AI
- CSCE 4205 Intro to Machine Learning
- CSCE 4290 Intro to Natural Language Processing
- CSCE 4300 Big Data and Data Science
- CSCE 4380 Data Mining
- CSCE 4890 Directed Study in AI/Data Analytics

Note: Some courses may have pre-requisites that 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 Programming

Total number of credit hours: 21

*Includes an Academic Certificate?*



**YES**

***Game Programming Certificate***

Courses:

- CSCE 4210 Game Programming 1
- CSCE 4220 Game Programming 2
- CSCE 4255 Programming Math and Physics for Games
- CSCE 4250 Topics in Game Development
- Choose 3 from
  - CSCE 2210 Introduction to Visual Scripting for Games
  - ENGL 2800 Intro to Game and Play
  - MRTS 3630 Perspectives on Video Games
  - ENGL 3500 Beginning Game Writing Workshop
  - ENGL 4680 Game Narrative as Literature
  - MRTS 3445 Video Game Histories
  - COMM 4320 Communications and Virtual Gaming

Note: Some courses may have pre-requisites that 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: 21  
Includes an Academic Certificate?



**YES**

***Security Certificate and NSA Cybersecurity Certificate***

Choose 7 courses from:

- CSCE 4560 Secure Electronic Commerce
- CSCE 4600 Intro to Operating Systems
- CSCE 3560 Cloud Security
- CSCE 4050 Applications of Cryptography
- CSCE 4357 Database Systems Security
- CSCE 4555 Computer Forensics
- CSCE 4565 Secure Software Development
- CSCE 4570 Information Privacy
- CSCE 4575 Blockchain and Applications
- CSCE 4890 Directed Study in Cybersecurity Topics

Note: Some courses may have pre-requisites that 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 Certificate

Total number of credit hours: 21

*Includes an Academic Certificate?*



**YES**

***Game Studies and Design Certificate***

Courses:

- CSCE 1010 Discovering Computer Science
- ENGL 2800 Intro to Game and Play
- MRTS 3630 Perspectives on Video Games
- ENGL 3500 Beginning Game Writing Workshop
- ENGL 4680 Game Narrative as Literature
- MRTS 3445 Video Game Histories
- COMM 4320 Communications and Virtual Gaming

Note: Some courses may have pre-requisites that 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 Analytics  
Total number of credit hours: 21  
Includes and Academic Certificate?



**YES**

***Data Analytics Certificate***

Courses:

- IPAC 4130 Data Analytics and Computational Statistics 1
- IPAC 4230 Data Analytics and Computational Statistics 2
- IPAC 4340 Principles of Data Structures, Harvesting and Wrangling
- IPAC 4250 Principles of Data Visualization for Large Data
- IPAC 4340 Methods for Discovering and Learning from Data
- CSCE 4300 Intro to Big Data and Data Science
- CSCE 4380 Data Mining

Note: Some courses may have pre-requisites that 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: 21

*Includes an Academic Certificate?*



**No**

Courses:

- CSCE 4127 Digital Logic and Computer Organization Concepts
- CSCE 3610 Intro to Computer Architecture
- CSCE 3730 Reconfigurable Logic
- CSCE 4160 Parallel Programming
- CSCE 4610 Computer Architecture
- CSCE 4890 Directed Study in Computer Hardware and organization (2)

Note: Some courses may have pre-requisites that 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: Computing Foundations and Theory

Total number of credit hours: 21

Includes and Academic Certificate?



Courses:

- CSCE 4110 Algorithms
- CSCE 4115 Formal Languages, Automata and Computability
- CSCE 4430 Programming Languages
- CSCE 4600 Operating Systems
- CSCE 4650 Introduction to Compilation Techniques
- CSCE 4655 Principles of Compiler Optimization
- CSCE 4460 Software Testing and Empirical Methodologies

Note: Some courses may have pre-requisites that 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: 21

*Includes an Academic Certificate?*



Pick 7 Courses from:

- LTEC 3260
- LTEC 4560
- BCIS 3630
- BCIS 3680
- BCIS 4650
- BCIS 4720
- CSCE 3030
- CSCE 3210
- CSCE 4115
- CSCE 4240
- CSCE 4430
- CSCE 4440
- CSCE 4600

Note: Some courses may have pre-requisites that 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: 21

*Includes an Academic Certificate?*



Pick 7 Courses from:

- INFO 3010
- INFO 3020
- INFO 4050
- INFO 4501
- INFO 4670
- INFO 4707
- INFO 4730
- INFO 4907
- INFO 4080
- INFO 4230
- INFO 4206
- INFO 4307
- INFO 4365
- INFO 4745
- DSCI 2710
- DSCI 3710
- DSCI 3870
- DSCI 4330
- DSCI 4510
- DSCI 4520
- DSCI 4700

Note: Some courses may have pre-requisites that 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: Information Systems

Total number of credit hours: 21

*Includes an Academic Certificate?*



Pick 7 Courses from:

- INFO 4206
- INFO 4306
- INFO 4307
- INFO 4745
- BCIS 2610
- BCIS 3610
- BCIS 3615
- BCIS 3620
- BCIS 3630

Note: Some courses may have pre-requisites that 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 Analytics  
Total number of credit hours: 21  
Includes an Academic Certificate?



Pick 7 Courses from:

- IPAC 4130
- IPAC 4240
- IPAC 4250
- IPAC 4340
- MATH 1720
- MATH 3680
- IPAC 4230

Note: Some courses may have pre-requisites that 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: Scientific Computation

Total number of credit hours: 21

Includes an Academic Certificate?



No

Pick 7 Courses from:

- MATH1720
- MATH2700
- MATH3410
- MATH3350
- CSCE3850
- CSCE4810
- CSCE4820

Note: Some courses may have pre-requisites that 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

Total number of credit hours: 21

Includes an Academic Certificate?



**No**

Pick 7 Courses from:

- BCIS 2610
- BCIS 3610
- INFO 4300
- INFO 4306
- LTEC 3530
- LTEC 4550
- LTEC 4040
- LTEC 4060
- LTEC 4070
- MGMT 3330
- MGMT 3721
- MGMT 3820

Note: Some courses may have pre-requisites that 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: 21

Includes an Academic Certificate?



Pick 7 Courses from:

- DRTL2080
- DRTL2090
- DRTL3090
- DRTL3190
- DRTL4070
- DRTL4000
- DRTL4090
- JOUR2000
- MKTG3651
- MKTG3720
- MKTG4620
- CSCE4560

Note: Some courses may have pre-requisites that 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: 21

Includes an Academic Certificate?



Pick 7 Courses from:

- CSCE 4575 Blockchain & Applications
- CSCE 4205 intro to Machine Learning
- CSCE 4560 secure e-comm
- CSCE 3201 – Applied AI
- PAC 4130- Data Analytics and Computational Statistics 1
- CSCE 4650 – Database Systems
- Plus one additional related course or directed study

Note: Some courses may have pre-requisites that 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: 21

Includes and Academic Certificate?



Pick 7 Courses from:

- CSCE 4710 – Introduction to Health Informatics
- INFO 4637 – Medical Informatics
- IPAC 4250 – Health Data Science I
- CSCE 4380 – Data Visualization
- HSCI 2010 - Medical Terminology
- HSCI 3020 - Health Care Law and Ethics.
- Plus one additional related course or directed study

Note: Some courses may have pre-requisites that 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: 21

Includes an Academic Certificate?



**No**

Pick 7 Courses from:

- PSYC- 1630- General Psychology I
- PSYC- 1650 - Biological Psycho
- PSYC 3620 - Developmental Psychology
- PSYC 3520 - Psychology of Personality
- PSYC -3100 - Abnormal Psychology
- IPAC 4130- Data Analytics and Computational Statistics 1
- CSCE 3214- Software Development for Artificial Intelligence
- PSYC 2580 - Health Psychology

Note: Some courses may have pre-requisites that 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: 21

Includes and Academic Certificate?



Pick 7 Courses from:

- ADVG 1000 - Principles of Advertising and Brand Strategy
- ADVG 2000 - Digital Advertising Tools and Analytics
- ADVG 3500 - Advertising Media Buying and Planning
- MKTG 4120 - Consumer Behavior
- ADVG 4200 - Advertising Automation and AI (more relevant to digital advertising)
- ADVG 2500 - User Experience (UX) Design for Advertising (more focused on advertising)
- CSCE 3201 Applied AI
- CSCE 3214 - Software Development for Artificial Intelligence
- CSCE 3220 - HCI

Note: Some courses may have pre-requisites that 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: Teacher Certification in Computer Science  
Total number of credit hours: 21  
Includes and Academic Certificate? No

See Teach North Texas website for more information.  
CSCE faculty contact [David.Keathly@unt.edu](mailto:David.Keathly@unt.edu)

Note: Some courses may have pre-requisites that 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: 21

Includes and Academic Certificate?



**No**

Pick 7 Courses from:

- LTEC 3600 - Instructional Design and Development
- LTEC 4200 - Learning Analytics
- LTEC 4300 - Human-Computer Interaction in
- LTEC 2600 - Digital Tools in Education
- CSCE 4890 – Directed studies - Data Analytics
- IPAC 4130- Data Analytics and Computational Statistics 1
- Plus one additional related elective or Directed Study

Note: Some courses may have pre-requisites that 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 Specialist

Total number of credit hours: 21

Includes an Academic Certificate?



No

Pick 7 Courses from:

- LTEC 2100 - Surviving the Information Age
- LTEC 3220 - Computer Graphics in Education and Training
- LTEC 3260 - Web Authoring
- LTEC 4160 - Advanced Computer Applications in Education and Training
- LTEC 4210 - Digital Multimedia in Education and Training
- LTEC 4550 or CSCE 4535 - Network Systems Administration
- CSCE 3201 Applied AI
- CSCE 3214 - Software Development for Artificial Intelligence

Note: Some courses may have pre-requisites that 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: 21

Includes an Academic Certificate?



No

Pick 7 Courses from:

- LTEC 3000 - Foundations of Learning Technologies in STEM
- LTEC 3100 - New Horizons for Learning Technologies in STEM
- LTEC 3440 - Introduction to Instructional Technology
- LTEC 4200 - Performance Improvement in Education and Training
- LTEC 4630 - Evaluation, Measurement and ROI
- LTEC 4300 – Human-Computer Interaction in Education
- CSCE 3201 Applied AICSCE 3214 - Software Development for Artificial Intelligence

Note: Some courses may have pre-requisites that 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: 21

Includes an Academic Certificate?



**No**

- Pick 7 Courses from:
  - SENM 4230 - International Brand Strategies in the Sport Entertainment Industry
  - SENM 4870 - Business Planning in the Sports Entertainment Industry
  - JOUR 4270 - Strategic Social Media
  - SENM 4325 - Fan Engagement Strategies in the Sport Entertainment Industry
  - CSCE 3201 – Applied AI
  - JOUR 4355 - Sport Media Relations
  - INFO 4306 – Data Visualization

Note: Some courses may have pre-requisites that 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: 21

Includes an Academic Certificate?



**No**

Pick 7 Courses from:

- HMGT 1500 - Orientation to the Hospitality Industry
- HMGT 3700 - Hotel Operations
- HMGT 4200 - Hospitality Marketing and Sales
- HMGT 4300 - Hospitality Financial Management
- LTEC 3260 - Web Authoring - Design and development of web applications for hospitality
- LTEC 4160 - Advanced Computer Applications in Education and Training
- LTEC 4630 - Evaluation, Measurement and ROI
- HMGT 3800 - Hospitality Law - Legal issues and risk management in hospitality
- HMGT 4500 - Hospitality Management Internship

Note: Some courses may have pre-requisites that 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: 21

Includes an Academic Certificate?



Pick 7 Courses from:

- ARCH 2800 – Archaeological Science
- GEOG 3500 – Introduction to Geographic Information Systems
- AMDS 3210 – Public Engagement in Heritage Management
- AMDS 3220 – Heritage Museum Studies
- AMDS 3230 – Heritage Travel
- AMDS 3240 – Heritage Laws and Ethics
- Plus one additional related elective or Directed Study

Note: Some courses may have pre-requisites that 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: 21

Includes an Academic Certificate?



**No**

Pick 7 Courses from:

- ADVG 1000 - Principles of Advertising and Brand Strategy
- ADVG 2000 - Digital Advertising Tools and Analytics
- ADVG 3500 - Advertising Media Buying and Planning
- MKTG 4120 - Consumer Behavior
- ADVG 4200 - Advertising Automation and AI (more relevant to digital advertising)
- ADVG 2500 - User Experience (UX) Design for Advertising (more focused on advertising)
- CSCE 3201 AI

Note: Some courses may have pre-requisites that 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: Psychological Science and Data Analytics

Total number of credit hours: 21

Includes an Academic Certificate?



**No**

Pick 7 Courses from:

- PSYC 1630 - General Psychology I
- PSYC 1650 - Biological Psycho
- PSYC 3520 - Introduction to Industrial Organizational Psychology
- PSYC 3620 - Cognitive Psychology,
- PSYC 2580 - Health Psychology or 3100
- IPAC 4130- Data Analytics and Computational Statistics 1
- CSCE 4205 – Machine Learning

Note: Some courses may have pre-requisites that 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: Bioinformatics and Computational Biology

Total number of credit hours: 21

Includes an Academic Certificate?



**No**

Pick 7 Courses from:

- BIOL 3451 – Genetics
- BIOL 3510 - Cell Biology
- BIOL 4850 - Biological Data Visualization
- BIOL 4050 - Biomedical Informatics
- BIOL 4210 - Biostatistics
- MATH 4410 - Mathematical Modeling in Biology
- CSCE 3201 AI

Note: Some courses may have pre-requisites that 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: Scientific Computation

Total number of credit hours: 21

Includes an Academic Certificate?



**YES**

***Mathematics of Scientific Computation Certificate***

Courses:

- MATH 1720 Calculus II
- MATH 2700 Linear Algebra
- MATH 3410 Differential Equations I
- MATH 3350 Intro to Numerical Analysis
- CSCE 3850 Intro to Computational Life Science
- CSCE 4810 Bioinformatic Algorithms
- CSCE 4820 Advances in Bioinformatics

Note: Some courses may have pre-requisites that 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: 21

Includes an Academic Certificate?



**YES**

***Technical Communications Certificate***

Courses:

- TECM 3100 Visual Technical Communications
- TECM 4100 Writing Proposals
- TECM 4180 Advanced Technical Communications
- TECM 4190 Technical Editing
- TECM 4250 Writing Technical Manuals and Procedures
- TECM 4300 usability and User Experience
- TECM 4400 Advanced Information Design

Note: Some courses may have pre-requisites that 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: 21

Includes an Academic Certificate?



**YES**

***Manufacturing Engineering Technologies Certificate***

Courses:

- MFET 3110 Machining Principles and Processes
- MATH 1720 Calculus II
- MFET 4190 Quality Assurance
- MFET 4200 Engineering Cost Analysis
- ENGR 1304 Engineering Graphics
- MFET 4210 CAD/CAM System Operations
- MFET 4220 CNC Programming and Operation

Note: Some courses may have pre-requisites that 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 Systems

Total number of credit hours: 21

Includes an Academic Certificate?



**YES**

***Geographic Information Systems Certificate***

Courses:

- GEOG 3500 Intro to GIS
- GEOG 4560 Intro to Python Programming
- GEOG 4550 Advanced GIS
- GEOG 4590 Advanced GIS Programming
- GEOG 4525 Using LiDAR Data in GIS
- GEOG 4530 Digital Image Analysis
- GEOG 4540 Intro to Enterprise GIS Applications

Note: Some courses may have pre-requisites that 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: 21

Includes and Academic Certificate?



**YES**

***Location Intelligence Certificate***

**Courses:**

- ECON 1100 Principles of Microeconomic
- GEOG 3500 Intro to GIS
- GEOG 4560 Intro to Python Programming
- GEOG 4220 Applied Retail Geography
- ECON 1110 Principles of Macroeconomics
- ECON 3200 Behavioral Economics
- ECON 4870 Intro to Econometrics

Note: Some courses may have pre-requisites that 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: 21

Includes and Academic Certificate?



**YES**

***Digital Media Studies Certificate***

Courses:

- COMM 3420 Communications and New Technology
- MRTS 3620 Digital Media and Society
- TECM 1500 New Media Experience
- COMM 3820 Social Media Perspectives
- COMM 4320 Communication and Virtual Gaming
- JOUR 3270 Media Entrepreneurship and Innovation
- JOUR 4270 Strategic Social Media

Note: Some courses may have pre-requisites that 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 Name: Music Technology

Total number of credit hours: 21

Includes an Academic Certificate?



### **Courses**

Select 21 credit hours from the following list:

- MUCP 3670 Intro to Electronic Music 1 (3)
- MUCP 3675 Intro to Electronic Music 2 (3)
- MUCP 4690 Topics in Computer Music Media (3)
- 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
- PHYS 1270 (3) Science and Tech of Musical Sound
- PHYS 3510 (3) Physics, Computation and Software Applications
- PHYS 3910 (3) Intermediate Computational Modeling of Physical Systems
- MUAE 3100 (3) Intro to DAW Techniques
- MUAE 3200 (3) Advanced DAW Techniques

Note: Some courses may have pre-requisites that 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: Criminal Justice  
Total number of credit hours: 21  
Includes and Academic Certificate?

Courses:

- CJUS 2100 Crime and Justice in the US
- CJUS 3201 Criminal Law
- CJUS 3330 Intro to Criminalistics
- CJUS 3340 Computer Crime
- CJUS 3600 Criminology
- CJUS 4250 Law and Social Problems
- CSCE 4555 Computer Forensics

Note: Some courses may have pre-requisites that 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: 21

Includes and Academic Certificate?



**YES**

***Water Resources Certificate***

Courses:

- GEOG 3800 Weather and Climate
- GEOG 4750 Surface Water Hydrology
- GEOL 4850 Intro to Groundwater Hydrology
- GEOG 2110 Foundations of Geographic Research
- GEOG 2180 Geosystems, Environment and Society
- GEOL 3010 Environmental Geography
- PHIL 4650 Philosophy of Water

Note: Some courses may have pre-requisites that 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: 21  
Includes and Academic Certificate?



**YES**

***Urban Studies Certificate***

**Courses:**

- 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
- Choose 1 course from:
  - SOCI 3300 Urban Sociology
  - SOCI 3800 Sociology of Work
  - SOCI 4350 Community Organization

Note: Some courses may have pre-requisites that 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: 21

Includes and Academic Certificate?



**YES**

***Theatre Technologies Certificate***

Courses:

- THEA 1030 Lighting and Sound I
- THEA 1046 Stagecraft I
- THEA 3130 Lighting II
- THEA 4920 Theatre Practicum
- THEA 4920 Theatre Practicum 9repeat for credit)
- THEA 3146 Stagecraft II
- THEA 4190 Sound Production and Design for the Theatre

Note: Some courses may have pre-requisites that 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: 21

Includes and Academic Certificate?



**YES**

***Statistics Certificate***

Courses:

- MATH 1720 Calculus II
- MATH 2730 Multivariable Calculus
- MATH 3680 Applied Statistics
- MATH 4610 Probability
- MATH 4650 Statistics
- ECON 4870 Intro to Econometrics
- ECON 4875 Empirical Linear Modeling

Note: Some courses may have pre-requisites that 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: 21

Includes and Academic Certificate?



**YES**

***Legal Studies Certificate***

Courses:

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

Note: Some courses may have pre-requisites that 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: 21

Includes and Academic Certificate?



**YES,**

***Entrepreneurship and Enterprise Management Certificate***

Courses:

- MGMT 3850 Foundations of Entrepreneurship
- MGMT 4200 Business Planning for Entrepreneurs
- MGMT 4210 E-Management
- MGMT 4235 Social Entrepreneurship
- MGMT 4335 Technology and Innovation Management
- MGMT 4560 Topics in Entrepreneurship
- MGMT 4710 Family Entrepreneurship

Note: Some courses may have pre-requisites that 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: 21  
Includes and Academic Certificate?



**YES**

***Social Justice Certificate***

Courses:

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 3700 - Peoples and Cultures of South Asia
- 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 4 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
- COMM 4240 - Rhetoric and Popular Culture
- GEOG 4245 - Geography of International Development
- GEOG 4420 - Capitalism, Nature, and Climate Change
- HIST 4174 - Revolutions in Twentieth-Century Latin America
- PHIL 3475 - Philosophy of Climate Change
- 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

Supporting Area: Risk and Insurance

Total number of credit hours: 21

Includes and Academic Certificate?



**YES**

***Risk and Insurance Certificate***

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
- RMIN 4310 Insurance Company Operations
- RMIN 4400 Retirement Planning and Employee Benefits
- RMIN 4500 Estate Planning

Note: Some courses may have pre-requisites that 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  
Includes and Academic Certificate?



**YES**

***Applied Anthropology Certificate***

**Courses:**

- 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

Note: Some courses may have pre-requisites that 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: 21

Includes an Academic Certificate?



Courses:

- Econ 1100 Principles of Microeconomics (take in University Core if possible)
- ACCT 2010 Accounting Principles I
- ACCT 2020 Accounting Principles II
- BLAW 3430 Legal and Ethical Environment of Business
- FINA 3770 Finance
- MKTG 3651 Foundations of Marketing Practice (non-Business Majors)
- BCIS 2610 Intro to Computers in Business
- BCIS 3610 Basic Info Systems or OPSM 3830 Operations Management (needs BCIS 2610)

Note: Some courses may have pre-requisites that 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: 21

Includes an Academic Certificate?



**No**

Pick 7 Courses from:

- LSCM 4530
- LSCM 4540
- LSCM 4560
- LSCM 3960
- LSCM 4360
- LSCM 4510
- LSCM 4860

Note: Some courses may have pre-requisites that 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: Management  
Total number of credit hours: 21  
Includes and Academic Certificate?



Pick 7 Courses from:

- BUSI 1340
- MGMT 3610
- MGMT 3721
- MGMT 3820
- MGMT 3850
- MGMT 4210
- MGMT 4300
- MGMT 4350
- MGMT 4470

Note: Some courses may have pre-requisites that 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 Associates Degree Transfers

Total number of credit hours: 21

Includes an Academic Certificate?



Courses:

21 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 (note this is not an exhaustive list):

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: 21  
Includes an Academic Certificate?



**NO**

Courses:

A 21-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.