STATE OF TENNESSEE
Department of Commerce and Insurance
BOARD OF EXAMINERS FOR LAND SURVEYORS
500 James Robertson Parkway
Nashville, TN 37243-1146
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www.tn.gov/regboards/surveyors

TO: All Tennessee Land Surveyor Applicants

FROM: Tennessee Board of Examiners for Land Surveyors

RE: TCA 62-18-109
Category A, B, C Educational Courses (Internal Guide Only to Expedite Applications)

In order to assist applicants with the process of obtaining the educational surveying requirements toward the application process for the state of Tennessee, the attached pre-approved lists are offered for your convenience.

This list is preliminary and will be under continuous revision as the Board receives appropriate information. The Administrative Director of the Board and the Department website personnel will be responsible for the website update. Our website address is: www.tn.gov/regboards/surveyors.

If an individual is applying for licensure and has already obtained their four-year baccalaureate degree in Land Surveying ***Category A or (Pathway i)***, then the individual will have already taken all required courses and the attached listings will not apply to them.

An individual applying under ***Category B or (Pathway ii)*** will be required to submit 24 semester hours of courses relating directly to surveying. Acceptable courses may have been taken while pursuing your four-year degree or you may need to select courses from List I or II. To expedite your application, the Board suggests a minimum of 18 hours be equivalent to courses shown in List I and the remainder from List II or III.

An individual applying under ***Category C or (Pathway iii)*** will be required to submit 36 hours of courses relating directly to surveying. Acceptable courses may have been taken while pursuing your four-year degree or you may need to select a total of 36 hours from List I, II, or III. To expedite your application, the Board suggests a minimum of 18 hours be equivalent to courses shown in List I, six hours from List II and the remaining 12 hours from List I, II or III.

An individual applying under ***Category D or (Pathway iv)*** will be required to submit 30 hours of courses relating directly to surveying. Acceptable courses may have been taken while pursuing your two-year degree or you may need to select a total of 30 hours from List I, II, or III. To expedite your application, the Board suggests a minimum of 18 hours be equivalent to courses shown in List I, six hours from List II and the remaining 6 hours from List I, II or III.

An individual applying under ***Category E or (Pathway v),*** **having passed the FS exam after 6/30/2017**, will be required to submit 12 hours of courses relating directly to surveying. To expedite your application, the Board suggests the 12 hours be equivalent to courses shown in List I.

An additional list attached are the institutions where the board has pre-approved courses relating to surveying: East Tennessee State University, Johnson City, TN; Pellissippi State Community College, Knoxville, TN; Austin Peay State University, Clarksville, TN; Columbia State Community College, Columbia, TN; University of Tennessee – Martin, Martin, TN; University of Memphis, Memphis, TN; Murray State University, Murray, KY; Nashville State Community College, Nashville, TN; Jackson State Community College, Jackson, TN; Southwest Tennessee Community College, Jackson, TN; Chattanooga State Community College, Chattanooga, TN; Louisiana Technical College, Mississippi State University.

SURVEYING AND GEOMETRICS

THIS LIST IS SUBJECT TO CHANGE

(Revised May 25, 2023)

UNLESS THE COURSE THAT YOU ARE REQUESTING CREDIT FOR IS SPECIFICALLY RELATED TO SURVEYING, YOU WILL ONLY RECEIVE CREDIT ONE TIME. YOU WILL NOT RECEIVE CREDIT FOR EVERY TIME YOU TAKE THE SAME COURSE, FOR EXAMPLE, IF YOU ARE GIVEN CREDIT FOR CALCULUS I, YOU WILL NOT RECEIVE CREDIT FOR CALCULUS II, III OR ANY OTHER CALCULUS COURSE.

(I) A Minimum of 18 Hours*

Advanced Surveying Principles
Control Surveys
Land Boundary/Real Estate Law
Land Subdivision and Mapping/Platting
Positioning with GPS
Land Survey Systems
Survey Measurement and Analysis
Survey Projects
Hydrographic Surveying
Mine Surveying
Map Projections and State Planes
Geodetic Science
Cartography III or above
Surveying and Lab (Level 300 or above)
Site Planning & Development
Road Design/Route Survey
Legal Aspects of Surveying
Precision Tech Ag&NRM GIS/GPS
Advance GIS (Level 300 or Above)
Advanced Surveying Math
Production Monitoring and Automation
Boundary Control & Legal Principles for Surveyors
Surveying & GIS
GIS & GPS Application to Biosystems
Quantitative Methods in Geography
Surveying Natl Resources w/GPS

*The Board recommends that these courses be 300 and 400 level courses.

(II) A Minimum of 6 Hours

Digital Image & Base Maps
Automated Surveying & Mapping (CAD)
Hydrology
Photogrammetry
Surveying Measurement Fundamentals/Principles
Engineering and Construction Surveys
Construction Surveys
Field Mapping
Surveying I and II
Cartography I and II
Hydraulics and Water Systems
Dendrology
Remote Sensing
Advanced AutoCAD & Civil Drawing
Surveying and Soil & Water Engineering
Transportation/Highway Engineering
Environmental Instrumentation & Monitoring
CAD Applications to Biosystems
Engineering Technology
Geomatics
Environmental Instrumentation and Monitoring
Applications to Biosystems Engr. Tech

(III)
Computer Programming
Surveying Graphics
Technical Communication
Soil and Water Engineering/Earth Science
Professional Ethics
Resource Management/GIS
Statistics
Trigonometry
Calculus
Geometry
Physics
Engineering CAD Drawing
Geology for Engineers

PRE-APPROVED EDUCATION HOURS FOR APPLICATION

THIS LIST IS SUBJECT TO CHANGE

SUBJECT / COURSE /COURSE TITLE	LIST	HOURS
East Tennessee State University		
SURV 1550 Introduction to Surveying	II	3
SURV 1570 Portfolio I	III	1
SURV 2038 Honors Professional Ethics	III	3
SURV 2520 Introduction to Surveying Law	I	3
SURV 2550 Surveying Measurement Fundamentals	II	4
SURV 2560 Surveying Graphics	II	3
SURV 3030 Technical Communications	III	3
SURV 3048 Honor Methods of Research		3
SURV 3510 Engineering and Construction surveys	II	3
SURV 3520 Land Survey Systems	I	2
SURV 3525 Intro to Unmanned Aircraft Systems	II	3
SURV 3530 Survey measurement and computational analysis	I	3
SURV 3540 Junior Surveying Projects	I	2
SURV 3550 Advanced Surveying Mathematics	I	3
SURV 3560 Geodetic Science	I	3
SURV 3570 Photogrammetry	II	4
SURV 3580 Surveying Topics	II	3
SURV 3630 Surveying Hydrology I	II	4
SURV 4500 Senior Surveying Projects	I	2
SURV 4517/5517 Photogrammetry	II	4
SURV 4520 Survey Science Topics		3
SURV 4537/5537 Land Boundary Location	I	4
SURV 4547/5547 Land Subdivision and Platting	I	4
SURV 4550 Automated Surveying and Mapping	I	3
SURV 4567 Positioning with GNSS	I	3
SURV 4570 Portfolio II	III	1
SURV 4617/5617 Digital Imagery Processing	I	3
ENTC 3030 Technical Communication	III	3
ENTC 3989 Internship/Cooperative Education	I	2
FNCE 3130 Real Estate Law	I	3
GEOS 1040/1041 Earth & Society Lecture	II	3
GEOS 1120 Landforms and Processes	II	4
GEOS 3500 Geographic Information Systems	II	3
ASTR 1010 Astronomy I	II	4
ASTR 1020 Astronomy II	II	4
MATH 1530 Probability and Statistics - Noncalculus	III	3
MATH 1920 Calculus II	III	4
MATH 2010 Linear Algebra	III	3
MATH 2050 Probability and Statistics Calculus Based	III	3

University of Tennessee at Martin		
ENGR 350 Prin of Land Surveying and Geomatics	I	3
AGET 354 Advanced Land Surveying & Geomatics	I	3
AGET 454 Land Surveying With GPS	I	3
AGET 456 Boundary Control & Legal Principles	I	3
AGET/CIEG 458 Subdivision Site Planning & Development	I	3
ENGR 352 Transportation Engineering	I	3
ENGR 490 Special Topics - Surveying Process	I	3
GEOG 471 Cartography	I	3
AGRI 270 Introduction to Geospatial Technology	II	3
AGET 220 Surveying and Soil & Water Engineering	II	3
AGET 482 Principals of GIS and GPS for Agricultural and Natural Resource Management	II	3
ENGR 353 Hydraulics and Hydrology	II	3
GEOG 310 Principals of GIS	II	3
GEOG 364 Introduction to Remote Sensing	II	3
GEOG 410 Geographic Information Systems: Modeling & Application	II	3
PLSC 341 Dendrology & Forest Ecology	II	3
ENGR 101 Engineering Graphics	III	3
ENGR 311 Engineering Applications of Probability and Statistics	III	3
ENGR 409 Engineering design and Project Management	II	3
GEOG 201 Introduction to Physical Geography	III	3
MATH 210 Elementary Statistics and Probability	III	3
MATH 251 Calculus I, II, III	III	4
PHIL 160 Exploring Ethics	III	3
PHSY 210/211 College Physics I, II, III	III	4
SOIL 210 Soil Science	II	4
University of Tennessee at Chattanooga		
ETCM 1740 Surveying	II	4
ENCE 2620 Introduction to Geomatics	II	2
ANTH 3350 Archaeological Field Methods	II	3
GEOG 2210 Maps and Mapping	II	3
GEOG 2100 Intro to GIS and Remote Sensing	II	4
FIN 3710 Real Estate Fundamentals	III	3
ENCE 1020 Intro to Engineering Graphics	III	1
ENCE 3610 Soil Mechanics	II	3
ENCE 3620 Transportation Engineering I	I	3
ENCE 4620 Transportation Engineering II	I	3
GEOL 4450 Hydrology	II	4
GEOL 4530 Geographic Information Systems for Geoscientists	I	4
ESC 4660 Geographic Information Systems	II	3
GEOL 4660 Geographic Information Systems	II	3
Cleveland State Community College		
BIOL 2310 Conservation	III	3

BIOL 2320 Dendrology	II	3
COMM 2025 Fundamentals of Communication	III	3
ENST 1311 Computer Aided Design I	III	3
ENST 1332 Surveying and Mapping	II	3
ENST 1233/1333 3D CAD Mapping	II	2
ENST 1334 Geomatics	I	3
ENST 1350 Industrial Safety	III	3
ENST 2331 Route Surveying	I	3
ENST 2333 Mapping with GIS	II	3
ENST 2336 GPS and Survey Adjustments	I	3
ENST 2337 Legal Principles of Surveying	I	3
ENST 2390 Capstone	I	3
ENST 2391 Internship	I	3
MATH 1050 Trig Applications for Surveying	II	3
MATH 1530 Intro Statistics	III	3
MATH 1720 Pre-Calc Algebra	III	3
MATH 1920 Calculus	III	3
Murray State University		
GSC 202 Introduction to Geographic Information Systems	II	3
GSC 305 Introduction to Cartography	II	3
GSC 350 Field Techniques in Geosciences	II	3
GSC 522 Digital Cartography	II	3
GSC 622 Digital Cartography	I	3
AGR 350 Soil Survey	II	3
AGR 470 Soil and Water Engineering	II	3
CET 280 Plane Surveying	II	3
CET 370 Route Surveying	I	3
CET 381/CMA 381 Boundary Surveying **I**	II	3
CET 486 Boundary Surveying II	I	3
CET 385/CMA 385 Construction Estimating	II	3
CET 620 Advanced Geodetic Surveying	I	3
CMA 460 Geodesy	I	3
CMA 480 Construction Planning & Mgmt	II	3
EES 312 Intro to Remote Sensing	II	4
EES 507 Land Use Planning	I	3
EES 521 Geo Information Systems	II	4
ENT 382 Hydraulics	II	4
COM 161 Intro to Public Speaking	III	3
ARC 300 Archaeological Method and Theory	II	3
ARC 302 Archaeological Fieldwork	II	3
ARC 605 Archaeological Information Systems	II	3
CET 410 Transportation Systems and Design	I	3
ITD 107 Intro to Technical Drawing	III	4
IOE 125 Analytic Methods in Eng. Technology	III	3
PHI 202 Ethics	III	3

PHY 130/131 General Physics	III	3
UAS 110 Intro to UAS Applications	II	3
Southwest Tennessee Community College		
CIVT 1550 Surveying Fundamentals	II	4
CIVT 2550 Advanced Surveying	II	4
CADD 2300 Civil 3D Site Design	III	3
CADD 1200 Autocad Fundamentals	III	3
CADD 1250 Advanced Autocad Topics	III	3
University of Memphis		
PLAN 6502 Computer Cartography	II	3
ESCI 6122 Soils & Soil Processes	III	3
ESCI 6531 Field Methods/Geography	III	3
ESCI 7333 Advanced Archaeology Field Tech	III	2
CIVL 6164 Route Location & Design	I	3
CIVL 6180 Advanced Hydrology/Hydraulics	II	3
CIVL 7165 Geometric Design of Transportation Systems	I	3
Columbia State Community College		
ESCI 1020 Landforms	III	4
AGRI 1040 Introduction to Agricultural Engineering	III	3
PHIL 1040 Introduction to Ethics	III	3
Tennessee Tech University		
CEE 3600 Surveying	II	3
AGET 3510 Agricultural Surveying	II	3
AGET 3110 Natural Resource Systems	II	3
GEOL 3830 Field Geology	II	4
AGET 3520 Agricultural Spatial Technologies I	II	3
AGET 4520 Agricultural Spatial Technologies II	I	3
GEOG 4210 Cartography	I	3
CEE 3610 Transportation Engineering	I	3
CEE 4640 Highway Engineering	I	3
AGET 3540 Fundamentals of GIS and GPS	II	3
GEOG 4510 Theory of GIS I	II	3
GEOG 4511 Theory of GIS II	II	3
CEE 4460 Geospatial Modeling and Analysis in Engineering	II	3
GEOL 3210 Geology for Engineers	III	3
CEE 4920 Professionalism And Ethics	III	1
CEE 3710 Principals of Engineering Economy	III	3
CE 3720 Engineering Statistics	III	3
ENGR 1110 Engineering Graphics	III	2
ENGR 1210 Intro to Engineering	III	1
CEE 3420 Hydraulics	III	3
CEE 4420 Engineering Hydrology	III	3
AGHT 3450 Dendrology	III	3

Austin Peay State University		
AGRI 4210/4211 Soil Genesis, Taxonomy, Mapping	II	4
GEOG 3150/3151 Geographic Information Systems I	II	4
GEOG 3920 Field Mapping and the Global Positioning System	II	3
GEOL 4990 Geology Field Camp	II	6
ENGT 1720 Plane Surveying	II	3
GEOG 4250 Applied Geographic Information Systems	II	3
GEOG 425 Applied Geographic Information Systems	II	4
GEOG 3250 Geographic Information Systems	II	3
GEOG 1010 Physical Geography	III	3
ENGT 3730 Soil Mechanics	III	3
ENGT 3010 Engineering Economics	III	3
Nashville State Community College		
CIVT 1550 Surveying Fundamentals	II	4
CIVT 2400 Hydrology/Site Design - Civil 3D	II	3
CIVT 1200 Geographic Information Systems	III	3
CIVT 1230 Soils and Foundations	III	3
CADD 1200 AutoCAD Fundamentals	III	3
Louisiana Tech University		
CVEN 254 Plane Surveying	II	3
CVEN 355 Advanced Surveying	I	3
CVEN 357 Engineering and Construction Surveying	II	2
CVEN 457 Practical Surveying	I	3
CVTE 255 Computer Applications in Surveying	II	3
CVEN 324 Introduction to Soils Engineering	III	2
ENSC 310 Soil Science	III	3
CVEN 456 Legal Aspects Boundary Survey	I	3
CVTE 210 Basic Hydraulics	II	3
CVTE 475 Soils in Construction	III	3
GISC/GEOG 341 Computer Cartography	II	3
CVEN 322 Highway Engineering I	II	3
CVEN 333 Highway Engineering II	II	3
BLAW 441 Real Property	I	3
FINC 442 Principles of Real Estate and Land Economics	II	3
University of Tennessee at Knoxville		
CE 210 Geomatics	II	4
CSM 224 Construction Surveying	II	2
ESS 326 GIS/GPS Applications in Agriculture	II	3
GEOG 413 Remote Sensing of the Environment	II	4
GEOL 424 GIS for Geoscientists	II	3
GEOG 421 Maps, Society, Power	III	3
ESS 210 Introduction to Soil Science	III	4

FWF 212 Dendrology and Silvics of North American Trees	II	3
CE 355 Transportation Engineering	I	3
CE 455 Transportation Engineering	I	3
Pellisippi Community College		
CIVT 2550 Advanced Surveying	I	4
CIVT 1550 Surveying Fundamentals	II	4
CADD 1200 AutoCAD Fundamentals	III	3
COM 2025 Fundamentals of Communication	III	3
CADD 2301 Civil 3D Site Design	II	3
CIVT 2500 Soil Mechanics	II	3
PHED 2660 Wilderness Orienteering	III	1
LEGL 2340 Property Law	II	3
Louisiana State University		
ANTH 2016 Field Methods in Archaeology	II	3
ANTH 4021 Advanced Field Methods in Archaeology	II	3
CE 3500 Plane Surveying and Measurements	II	3
CE 4530 Control Surveying with GPS	I	3
GEOG 4020 Aerial Photo Interpretation and Image Processing	II	3
GEOG 4044 Computer Cartography	II	3
CE 4500 Geodetic and Photogrammetric Surveying	I	3
CE 4520 Advanced Surveying	I	3
CE 4550 Boundary Surveying	I	3
CM 2105 Construction Surveying	II	3
CE3600 Principles of Highway and Traffic Engineering	I	3
CE 4560 Engineering Applications of Remote Sensing	I	3
CE 7255 Advanced Hydraulics	II	3
CE 7600 Transportation Engineering Data Collection Methods	II	3
CE 4200 Hydrology	II	3
GEOG 4047 Geographic Information Systems	II	3
CM 1102 Construction Plan Reading	III	3
CM 2116 Construction Plan Reading	III	3
CM 3165 Highway Construction	III	3
RNR 3004 Photogrammetry, GPS and GIS	II	3
GEOG 2040 Geospatial Technology	III	3
GEOG 4049 Geospatial Applications of Small UAS	II	3
GEOG 4042 Enterprise Geographic Information Systems	II	3
CE 4600 Geometric Design of Highways and Airports	II	3
CE 7615 Advanced Highway Design and Traffic Safety	II	3
ANTH 4020/4024 Aerial Photo Interpretation and Image Processing	II	3
GEOG 7975 Advanced Remote Sensing Seminar	II	3
RNR Field Studies in Dendrology	II	3
McNeese University		

CIEN 313 Transportation Engineering	I	3
CIEN 310 Elementary Surveying	II	3
CIEN 402 Soil Mechanics	II	3
GEOG 231 GIS I, Map Analysis and Thematic Mapping	II	3
ENGR 101 Engineering Graphics	III	2
GEOG 361 GIS II, Principles and Methods in GIS	II	3
Nicholls State University		
EGSC101 Engineering Graphics	III	2
EGSC111 Engineering Graphics with CAD	III	3
EGSC222 Geovisualization	II	3
EGSC301 Introduction to CAD	III	3
EGSC302 Computer Aided Survey Drawing	II	3
FINC 341 Principles of Real Estate	II	3
LASS 215 Legal Research	II	3
LASS 220 Real Estate Law	II	3
GEOM 101 Intro to Geomatics	II	3
GEOM 111/201 Geomatics Methods I	II	3
GEOM 112/202 Geomatics Methods II	II	3
GEOM 140/240/340 Summer Internship	I	1
GEOM 205 Problems in Geomatics	II	3
GEOM 207 Geodesy and Geodetic Coordinates I	II	3
GEOM 209 GIS Theory and Applications	II	3
GEOM 218 Photogrammetry I	II	3
GEOM 301/302 Route & Construction Surveys	I	3
GEOM 305 Geodesy and Geodetic Coordinates I	1	3
GEOM 304/306 Measurement Science I	II	3
GEOM 307 Geodesy and Geodetic Coordinates II	I	3
GEOM 309 Advanced GIS	I	3
GEOM 310 Boundary Control & Legal Principles	I	3
GEOM 311 GIS Theory and Applications	II	3
GEOM 318 Photogrammetry II	II	3
GEOM 340 Internship	I	3
GEOM 401 Subdivision Design & Planning	I	3
GEOM 405 Geodetic Positioning Systems (GPS)	I	3
GEOM 406 Measurement Science II	I	3
GEOM 410 Surveying and Mapping Practice	I	3
GEOM 411 Mapping by Photogrammetry and Remote Sensing	I	3
GEOM 418 Remote Sensing	I	3
GEOM 439 Special Topics	I	3
GEOM 440 Senior Seminar	I	3
Middle Tennessee State University		
CCM 3500 Land Surveying	II	3
CIM 3070 Site Planning, Layout and Preparation	II	3
PGEO 3000 Maps and Mapping	II	3
PLSO 3340 Fundamentals of Soil Science	III	3

PLSO 4350 Soil Survey and Land Use	II	3
BLAW 4470 Real Property Law for Commerce and Agriculture	II	3
PGEO 4380 Cartography	II	3
GEOL 3060 Computer Methods in Geology	II	3
PGEO 4530 Geographic Information Systems	II	3
PGEO 4560 Intermediate Geographic Information Systems	I	3
Vanderbilt University		
CE4100 Geographic Information Systems (GIS)	II	3
CE4500 Transportation Systems Design	I	3
ASTR 1010 Introductory Astronomy	III	3
Troy State University		
ART 2201 Introductory Drawing	III	3
GEM 1100 CAD I	III	2
GEM 1101 CAD II	III	2
GEM 2200 Basics of Surveying	II	3
GEM 3309 Land Survey Principles	II	3
GEM 3310 Land Survey Practice	II	3
GEM 3330 Advanced Measurement Analysis	II	3
GEM 3366 Photogrammetry and Remote Sensing	II	3
GEM 3379 Introduction to Least Squares Adjustment	II	3
GEM 3390 Fundamentals of GIS	II	3
GEM 3391 Application of GIS	II	3
GEM 4405 Route & Construction Surveying	I	3
GEM 4407 Land Development	I	3
GEM 4408 Geodesy & Geodetics	I	3
GEM 4409 Hydrology	II	3
GEM 4410 Introduction to Global Positions	II	3
GEM 4490 Geomatics Capstone	I	1
GEM 4499 Geomatics/GIS Projects	I	2
GEM 3395 Cooperative Work Experience I/II	I	1
UAS 2200 Unmanned Aerial Systems Overview	III	3
UAS 2202 Principles of UAS Design	III	3
UAS 2204 Principles of UAS Sensors & Sensing Systems	III	3
UAS 2206 Human Factors in UAS Operations & Accidents	III	3
UAS 2208 Legal & Ethical Considerations for UAS Ops	III	3
UAS 2210 UAS Real World Applications	II	3
UAS 2212 UAS Piloting Familiarization	II	3
GIS 3301 Cartography and Geo-Visualization	II	3
GIS 3305 Spatial Information and Analysis	II	3
GIS 3390 Fundamentals of GIS and Analysis	II	3
GIS 3300 Principles of Physical Geography	III	3
GIS 3310 Introduction to Remote Sensing	II	3
GIS 3391 Application of GIS	II	3
GIS 4401 Spatial Database Design and Management	II	3
GIS 4405 Spatial Modeling and Programming	II	3

GIS 4415 Advanced Geospatial Technologies	II	3
GIS4420 Web based GIS/Spatial Data Applications	II	3
Tennessee State University		
GEOG 3100 Cartography	II	3
CVEN 4520 Civil Engineering Design	II	3
CVEN 3130 Soil Mechanics	II	3
CVEN 3250 Hydraulic Engineering	II	3
CVEN 4320 Highway Engineering	II	3
CVEN 3350 Hydrology	II	3
CVEN 4090 Traffic Engineering	I	3
Walters State Community College		
LEGL 2340 Property Law	III	3
ETDD 1020/1021 Engineering Graphics II	III	4
ETDD 1010/1011 Engineering Graphics I	III	2
ENST 1380 Engineering Technical Communication	III	3
EGRT 2170 CADD Computer Aided Design Drafting	III	4
Dyersburg State Community College		
AGRI 1050 Introduction to Soil Science	II	4
ASTR 1030 Survey of Astronomy	III	4
Chattanooga State Community College		
CI 174 Surveying 1	II	4
ET 220 Communications in Engineering Technology	III	3
CI 224 Hydraulics and Hydrology	II	3
DD 218 Civil 3D	II	3
ET 215 Statistics and Quality Control for Eng. Technology	III	3
CI 134 Print Reading and CAD	III	3
Lipscomb University		
BI 3123 Engineering Ethics	II	3
CEE 1123 Fundamentals of Engineering Design	II	3
EN 3143 Technical Writing	III	3
CEE 2133 Surveying and Geomatics	II	3
CEE 3513 Transportation Engineering	I	3
CEE 4513 Transportation Engineering II	I	3
CEE 4613 Urban Hydrology and Hydraulic Systems	II	3
Christian Brothers University		
CE 111 Civil Engineering Graphics	III	3
CE 225 Geomatics	II	3
CE299 Hydraulics	II	3
CE 313 Hydrology	II	3
CE 318 Highway Engineering	II	3
CE322 Soil Mechanics	II	3

Florida Atlantic University		
BS in Geomatics Engineering		
CCE 4514C Intro Laser Mapping Technology	II	3
CGN 2327 Computer-Aided Design	III	3
CWR 3201C Applied Hydraulics	II	3
ENG 2213 Comp Apps In Engineering 1	II	3
GIS 3015C Intro to Mapping and GIS	II	3
MAP 3305 Engineering Mathematics 1	II	3
SUR 3103 Geomatics	II	2
SUR 3103L Geomatics Lab	II	1
SUR 3141L Auto Surveying and Mapping Lab	II	1
SUR 3205 Engrg Constr Surveying	II	2
SUR 3205L Engrg Constr Surveying Lab	II	1
SUR 3463L Land Subdivision and Platting Lab	I	1
SUR 3520 Meas Theory Data Adjustments	I	3
SUR 4384 Thermal Infrared Remt Sens/Apps	I	3
SUR 4403 Cadastral Prin Legal Aspects	I	3
SUR 4463 Subdivision Design	I	2
SUR 4530 Geodesy Geodetic Positioning	I	2
SUR 4530L Geodesy Geodetic Positioning Lab	I	1