DEPARTMENT OF TRANSPORTATION STUDIES

- Transportation Planning and Management (Non-Thesis Option), Master of Science (https://catalog.tsu.edu/graduate/schools-colleges/science-engineering-technology/transportation-studies/transportation-planning-management-non-thesis-option-ms/)
- Transportation Planning and Management (Thesis Option), Master of Science (https://catalog.tsu.edu/graduate/schools-colleges/science-engineering-technology/transportation-studies/transportation-planning-management-thesis-option-ms/)

TMGT 810 Fund Of Trans (3 Credits)
Lecture: 3, **Lab:** 0
Fundamentals of Transportation (3) This course presents an introduction to the organizational, economic, social, and environmental aspects of transportation; historical development and characteristics of various modes of travel, including rail, highway, air, pipeline and water transportation; comparative analysis of domestic and international systems; and administration of public transportation by providers, carriers and government.
College/School: Col of Science, Engr & Tech
Department: Dept of TransportStud

TMGT 811 Fund of Shipping (3 Credits)
Lecture: 3
Fundamentals of Shipping (3) This course is designed to provide graduate students with nonmaritime backgrounds an overview of the shipping industry. It presents elements of commercial shipping, shipping terminology, maritime geography, sea transport, cargo vessel types, vessel size groups, the liners, liner conferences, chartering, shipping documentation, the bill of lading, multimodal transport, marine insurance and general average.
College/School: Col of Science, Engr & Tech
Department: Dept of TransportStud

TMGT 812 Prin Trans & Des Engrng (3 Credits)
Lecture: 3, **Lab:** 0
Principles of Transportation Design and Engineering (3) This course presents criteria and parameters for the design and engineering of streets and highways, railroads and transit guideways, land transportation terminals, and air and water transportation facilities. Design considerations include system components, such as human factors, environmental constraints, and operational factors; Intelligent Transportation Systems (ITS), and other emerging technologies
College/School: Col of Science, Engr & Tech
Department: Dept of TransportStud

TMGT 815 Computer Apps In Trans (3 Credits)
Lecture: 3, **Lab:** 0
Computer Applications in Transportation (3) This course is an introduction to basic computer software for planning and analysis of transportation operations. Both general purpose and specialized software in such areas as traffic engineering, highway operations, transit operations and transportation planning will be considered. Examples of software to be covered include CORSIM, TRANSYT-7F, INTEGRATION, SYNCHRO, HCS, QRS II, etc.
College/School: Col of Science, Engr & Tech
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TMGT 818 Trans Research Method (3 Credits)
Lecture: 3
This course is designed to provided graduate students with the foundational knowledge required to conduct transportation related reseach. It introduces the basics of compositing a research question and objectives, determining appropiate methodoligical applications, linking literature with study objectives and identified methodologies, applying statistics and computer based tools for transportation operation and planning analysis and writing technically for transportation reports. 3 hours per week.
College/School: Col of Science, Engr & Tech
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TMGT 820 Trans Mgmt & Policy (3 Credits)
Lecture: 3, **Lab:** 0
Transportation Management and Policy (3) This course presents elements of the transportation environment; formulation and determinants of national, regional and urban/rural transportation policy; roles of regulation and community attitudes; and other impacts on transportation policy.
College/School: Col of Science, Engr & Tech
Department: Dept of TransportStud

TMGT 823 Economics Of Trans (3 Credits)
Lecture: 3, **Lab:** 0
Economics of Transportation (3) This course presents economic characteristics of selected transportation technologies; capital and operational costs of highway and public transportation modes; financing mechanisms and revenue sources for various modes; economic evaluation of alternative systems; cost effectiveness; micro-economic theoretical tools, investment appraisal, pricing techniques; role of domestic and international shipping in the U.S. economy; economic characteristics of waterborne transportation, including the nature of transport demand and cost functions; economic dimension of transportation service; and transportation market structures and transport pricing theory and practice.
College/School: Col of Science, Engr & Tech
Department: Dept of TransportStud

TMGT 825 Marine Trans Sys (3 Credits)
Lecture: 3, **Lab:** 0
Marine Transport Systems (3) This course presents types of ocean transportation and port facilities, role of port authorities in international transportation; domestic waterway operations; international water carriage; and elements and factors involved in international trade and their impact on transportation and marketing.
College/School: Col of Science, Engr & Tech
Department: Dept of TransportStud

TMGT 826 Ship Operations & Mgmt (3 Credits)
Lecture: 3
Ship Operations and Management (3) This course presents thorough knowledge of key functions in ship management and responsibilities in each area, i.e. commercial, operational, technical, crewing, bunkers, finance and administration; different types of organizational structure from all functions in-house, partly contracted or fully contracted out. Students are expected to understand thoroughly the structure and essential components of a ship management contract and become aware of standard documents including BIMCO Shipman, FUELCON, Lloyds Open Form 2000.
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TMGT 830 Urban Trans Plng (3 Credits)
Lecture: 3, **Lab:** 0
Urban Transportation Planning (3) This course presents perspectives on the context of and approaches to planning for public transportation services; long range versus short range planning; the program development process for transportation systems management (TSM) strategies and the comprehensive planning process; and alternative approaches to planning and citizen participation.
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Department: Dept of TransportStud

TMGT 840 Quan Anal For Trans (3 Credits)
Lecture: 3, **Lab:** 0
Quantitative Analysis of Transportation (3) This course is an introduction to analytic tools for operational and managerial decision making in transportation, including linear programming, dynamic programming, network analysis, queuing analysis and simulation.
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Department: Dept of TransportStud

TMGT 842 Tran Project Implementation (3 Credits)
Lecture: 3, **Lab:** 0
Transportation Project Implementation (3) Project implementation is a key outcome of the transportation planning and management process. Environmental impact statement, and citizen involvement are critical elements leading to implementation. Students enrolled in this course will learn the federal requirements and environmental process relating to transportation projects, project management strategies and software and learn how to incorporate citizen input into the design and implementation process.
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Department: Dept of TransportStud

TMGT 845 Sys Anal In Trans (3 Credits)
Lecture: 3, **Lab:** 0
Transportation Systems Analysis (3) This course presents the system approach and its application to transportation engineering and planning; the transportation industry as a productive system; the use of Transportation System Management (TSM) strategies; and systems analysis techniques including optimization, evaluation and systems modeling.
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Department: Dept of TransportStud

TMGT 846 Tran Infrastructure Mgmt (3 Credits)
Lecture: 3
Transportation Infrastructure Management (3) This course presents an integrated approach to the management of infrastructure systems. Analysis methods are developed recognizing the multidimensional nature of performance of facilities, resource constraints and technological innovations and institutional factors. Emphasis on an integrated approach to the design, construction, operations, maintenance and rehabilitation of facilities is through an understanding of the performance of facilities, approaches to management and available tools and developing technologies.
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TMGT 850 Travel Demand Analysis (3 Credits)
Lecture: 3, **Lab:** 0
Travel Demand Forecasting and Analysis (3) This course presents travel demand forecasting theories and applications. It presents traditional four-step travel demand forecasting models: trip generation, trip distribution, modal split, and traffic assignment, as well as activity-based travel demand forecasting methods. Computer models to be covered include QRS II, EMME2, TransCad, and TRANSIM.
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TMGT 855 Site Traffic Analysis (3 Credits)
Lecture: 3, **Lab:** 0
Site Traffic Analysis (3) This course presents the basic theory and methodologies in site traffic analysis, including statistical applications in traffic engineering; volume studies and characteristics; speed, travel time, and delay studies; crash studies; and parking studies. Students will be trained through several field surveys of volume, speed and delay, and are expected to have the basic ability to conduct on-site traffi c analysis.
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TMGT 860 Special Lecture Series (3 Credits)
Lecture: 3
Transportation Special Lectures (3) This course invites transportation engineers, planners, and managers from both public and private organizations to give special lectures on various transportation topics.
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TMGT 862 Hwy Traffic Operations (3 Credits)
Lecture: 3, **Lab:** 0
Highway Traffic Operations (3) This course presents factors related to freeway operations and traffic signal operations: macroscopic and microscopic traffic stream characteristics, capacity analysis techniques, shockwave theory, freeway traffic management systems, freeway traffic simulations, and evaluation and optimization of traffic signal timings. Software to be covered in this course includes HCS, INTEGRATION, CORSIM, and TRANSYT-7F.
College/School: Col of Science, Engr & Tech
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TMGT 865 Traffic Signals & Signal Ctrl (3 Credits)
Lecture: 3
Traffic Signals and Signal Control (3) This course presents the basic elements of traffic signals and signal timings including controllers, cycle length, phase structure, offset, change interval, all-red-interval, and split-phase; signal warrants that are included in the Manual on Uniform Traffic Control Devices (MUTCD); traffic signal timing optimization and evaluation software such as TRANSYT-7F, PASSER, TEAPAC, SYNCHRO, CORSIM, etc.; real-time traffic signal control systems such as SCOOT, SCATS and RT-TRACS; and relations of traffic signal operations with other elements of ITS applications.
College/School: Col of Science, Engr & Tech
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TMGT 866 Mktg of Maritime Trans Svcs (3 Credits)
Lecture: 3
Marketing of Maritime Transportation Services (3) This course presents the basic knowledge and skills about marketing, planning, and analysis applicable to maritime related service firms, including both hip operators and ship owners. Topics include the assessment of internal vs. external customer needs; quality control; competitive strategies; applications of marketing principles and practices to the maritime industry.
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Department: Dept of TransportStud

TMGT 867 Marine Trans Sys Dsgn & Policy (3 Credits)
Lecture: 3
Marine Transportation System Design and Policy (3) This course presents a historical review of the interaction between American shipping policy, and the design of Vessels, Fleets, and Port Systems. It will also introduce the effects of market structure on economics and finance; port performance and performance measures; the impact of Cabotage Laws, CDS and ODS subsidies, and fleets of a Planned Economy upon domestic and global trade.
College/School: Col of Science, Engr & Tech
Department: Dept of TransportStud

TMGT 868 Maritime Operations & Tech (3 Credits)
Lecture: 3
Maritime Operations and Technology (3) This course examines the role of technology in the maritime business environment. Topics include the technical knowledge of selected aspects in vessel design and operation and/or related maritime land-based or offshore structures, sub-sea engineering/mining, maritime related research, smart locks, use of Physical Oceanographic Real-Time System (PORTS®), AIS, VTS, VDR, GPS, AVRA in vessel and cargo tracking, safety and accident investigations, economic efficiency, coastal resource protection, litigation, and risk assessment.
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TMGT 869 Marine Ins & Cargo Loss Ctrl (3 Credits)
Lecture: 3
Marine Insurance and Cargo Loss Control (3) This course presents the theory, techniques, participants and background of risk assessment and management with emphasis given to contemporary issues in marine insurance law. Topics include admiralty salvage claims, general average history and evolution into its present form, marine liability coverage, cause of loss, additional perils, exclusions, warranties, duration of risk, adjustment clauses, operating clauses, civil commotions, war insurance, and project risk management techniques.
College/School: Col of Science, Engr & Tech
Department: Dept of TransportStud

TMGT 870 Freight & Log Mgmt (3 Credits)
Lecture: 3, **Lab:** 0
Freight and Logistics Management (3) This course presents U.S. and international movement of goods, including railroads, trucking, air carriers and ocean transport; coordination between the modes; principles of logistics management.
College/School: Col of Science, Engr & Tech
Department: Dept of TransportStud

TMGT 871 Maritime Global Trading Sys (3 Credits)
Lecture: 3
Maritime Global Trading System (3) This course introduces the theory of international waterborne trade. It provides a basis for examining American foreign trade policy, and regional and world trade institutions such as the WTO, ASEAN, the EU, GATT, and NAFTA. Topics include: International trade theory and policy, open-economy macroeconomic policy, tariffs, non-tariff barriers and enhancements, multinational enterprises and foreign direct investment, global competition and integration.
College/School: Col of Science, Engr & Tech
Department: Dept of TransportStud

TMGT 872 Maritime Ship & Port Security (3 Credits)
Lecture: 3
Maritime Ship and Port Security (3) This course examines ground-level issues, tasks, and responsibilities managed by the Port Security, Officer, Port Director, Federal and local law enforcement agencies to deal with various levels of Threat Analysis as well as responses by Vessels, Companies, and Terminals to various emergencies such as disasters from fire, explosion, petrochemical releases, or hurricanes that may require evacuations of various scale. It will also examine the role of third party contractors in Vessel and Facility Threat Assessment and countermeasures used as response to Piracy and Terrorism.
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TMGT 875 Seminar on Ports and Waterways (3 Credits)
Lecture: 3
Ports and Waterway (3) This course presents problems and issues related to ports and waterway transportation.
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Department: Dept of TransportStud

TMGT 876 Advanced Maritime Law (3 Credits)
Lecture: 3, **Lab:** 0
Advanced Maritime Law (3) This course introduces the American legal system and analysis of the public policy behind the law. Fundamental and advanced concepts of maritime law to give the students an understanding of the role and importance of maritime law in inland and ocean shipping transportation. Topics include: nature and sources of the law, jurisdiction, constitutional law, administrative law, torts, contracts, seaman rights, collision, pollution, and salvage.
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Department: Dept of TransportStud

TMGT 880 ITS Tech & Applications (3 Credits)
Lecture: 3
ITS Technologies and Applications (3) This course introduces the basic concepts and applications of the Intelligent Transportation Systems (ITS) technologies. Selected technologies in each category of ITS User Services that are defined in The National Architecture for ITS are introduced. Methodologies for evaluating the effectiveness and efficiency of ITS systems will be introduced with an emphasis on the advanced simulation models. The selected deployment examples of ITS systems will be examined to identify the policy, institutional and technological barriers that effect the ITS development and deployment.
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TMGT 882 GIS for Transportation (3 Credits)
Lecture: 3, **Lab:** 0
Geographical Information Systems for Transportation (3) This course will include three parts. The first part will introduce the basic concepts of GIS system, including the definition of GIS, the data structures that support spatial and attribute data, coordinate system, map projections and so on. In the second part, the basic skills of ArcGIS software package will be taught through lectures and laboratory work. The third part will introduce some feature GIS applications in transportation, such as GPS data analysis for deriving travel time information, transit bus stops and routes design, hurricane evacuation route design and monitoring, identifying hot spots of accidents, etc.
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TMGT 885 Quan Asmt Tran Envir Impact (3 Credits)
Lecture: 3
Quantitative Assessment of Transportation Environmental Impact (3) This course will include five parts. The first part will discuss the overall effects of transportation and related activities on the environment and present the indicators of these impacts. The second part will introduce the environmental laws and regulations in transportation and their roles in the project development process. The third part will focus on the air quality impacts of transportation. The fourth part of this course will focus on the transportation noise issues. In the last part of this course, the solutions or the traffic management strategies for mitigating the environmental impacts of transportation will be introduced.
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TMGT 890 Transportaton Seminar (3 Credits)
Lecture: 3, **Lab:** 0
Transportation Seminar (3) This course provides an opportunity for students and the instructor to discuss recent developments and issues in transportation, i.e., policies, energy and environmental issues, notably implementation of the Clean Air Act Amendments (CAAA); urban air quality and the economic impact of various strategies, and applications of advanced technologies in transportation including the Intelligent Transportation Systems (ITS).
College/School: Col of Science, Engr & Tech
Department: Dept of TransportStud

TMGT 895 Internship (3 Credits)
Lecture: 0, **Lab:** 9
Internship (3) Students enrolled in this course are required to submit a written report of the internship or project experience, detailing the specific tasks performed, contributions and the organizational setting is required.
College/School: Col of Science, Engr & Tech
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TMGT 896 Internship II (1 Credits)
Lecture: 1
College/School: Col of Science, Engr & Tech
Department: Dept of TransportStud

TMGT 899 Thesis (1-6 Credits)
Lecture: 0, **Lab:** 12
Thesis (3) Students enrolled in this course are required to submit a written research thesis. Thesis must be the product of independent research and must exhibit substantive depth, logical organization, and clarity of presentation. A faculty committee will evaluate the student's progress, and the thesis. A thesis option student needs to enroll three times in this course in order to get the required 9 semester credit hours.
College/School: Col of Science, Engr & Tech
Department: Dept of TransportStud

AJ 614 Issues in Terrorism and AJ (3 Credits)
Lecture: 3
AJ 614 Issues in Terrorism and the Administration of Justice (3) This course presents an analysis of the impact of terrorism on administration and management of justice agencies. Topics covered include domestic and international terrorism, integrated terrorism information systems, secure confinement, and technological developments. (Prerequisites: AJ 501, 607.)
Prerequisite(s): AJ 501 and AJ 607
College/School: The School of Public Affairs
Department: Dept of Admin of Justice