

Master's in Transportation Policy, Operations, & Logistics

Offered by



Program Description and Admissions Information

**School of Public Policy
George Mason University
Graduate Admissions
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Master's in Transportation Policy, Operations, & Logistics (TPOL)

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This Guide incorporates most of the requirements and rules pertaining to the master's program in the School of Public Policy. In addition, the University catalog (current edition) and associated requirements and rules, along with other pertinent University policies apply to, and in the case of inconsistency, take precedence over this Guide.

Revised: June 16, 2008

Program Overview

General Description and Program Information

The Master's in Transportation Policy, Operations, and Logistics (TPOL) program is designed for students and practicing professionals engaged in the planning, regulation, management and operation of transportation facilities and services. This 36 credit hour degree program provides students with a working knowledge of the theory, policy, law, research and practices required for effectively and efficiently supplying and operating transportation facilities and services. Students will also be able to think critically and analytically about the problems and challenges in this field, and to communicate their analyses clearly and effectively, both through written and oral presentations.

The School of Public Policy conducts policy research in a number of fields, including regional economic development, transportation policy, science and technology policy, electronic commerce and organizational informatics, governance and public management, and economic policy. The **School of Public Policy** is ranked third in the country for expenditures from federal sources and tenth in expenditures from all sources (NSF 2005 discipline research listing).

SPP began this program in Fall 2000 at its GMU – Arlington campus, with interactive television broadcasts to Richmond and Abingdon, Virginia. In Fall 2001, a cohort of students was admitted for study from Blacksburg, Virginia, and a cohort for study from Suffolk, Virginia entered the program in Fall 2002. Expansion has continued to Hampton Roads, Virginia (Fall 2002) and Helena, Montana (Spring 2003).

Program Format

The program consists of eight required core courses aimed at building a common perspective, and the language and skills of the new transportation professional (PUBP 501, PUBP 502, PUBP 503, PUBP 715, PUBP 716, PUBP 718, PUBP 721, and PUBP 722). One of these eight courses is taken towards the end of the student's program and provides a capstone practicum (PUBP 722). In addition, students take three elective courses (9 credit hours) that allow them to specialize in a particular aspect of the transportation field.

Program Summary

Required TPOL Core Courses:	27 credits
Elective Courses:	9 credits
Total:	<u>36 credits</u>

Program Curriculum

The Master of Arts in Transportation Policy, Operations & Logistics requires 36 credits of coursework.

Students may pursue the degree either as a full-time or part-time student. Most students are expected to enroll on as part-time students. Part-time students will be expected to complete 15 credit hours per year, with expected completion in 2-3 years. Sample course configurations might be 2-3, 2-2-1, and so forth. Students seeking full-time programs should consult with their advisor on scheduling.

The following course sequence illustrates a possible program of study for part-time students:

First semester (Fall)

- PUBP 501 (Policy and Organizational Analysis) **
- PUBP 715 (Transportation Systems) *Offered in the Fall semester only.*

Second semester (Spring)

- PUBP 502 (Governance and Policy Processes) **
- PUBP 718 (Transportation Planning & Policy) *Offered in the Spring semester only.*

Summer

- Elective 1
- Elective 2

Third semester (Fall)

- PUBP 716 (Transportation Operations & Logistics) *Offered in the Fall semester only.*
- PUBP 721 (Transportation Economics) *Offered in the Fall semester only.*

Fourth semester (Spring)

- PUBP 722 (Practicum) *Always offered in the Spring semester, sometimes offered in the Fall semester.*
- PUBP 503 (Culture, Organization and Technology) **

Summer

- Elective 3

**** Distance sections offered only in semester shown. Arlington sections typically offered every spring and fall.**

Certificate in Transportation and Logistics Policy

The School of Public Policy offers a number of graduate certificates in conjunction with its five masters degree programs. Certificate programs are open to those with a bachelor's degree who seek continuing education and skills to remain competitive in an increasingly complex global economy. The Transportation and Logistics Policy certificate requires the completion of PUBP 715 (*Transportation Systems*) and at least four courses (for a total of at least 15 credits) from the Transportation Policy, Operations, and Logistics sequence. Course options include (but are not limited to):

- Transportation Policy, Operations & Logistics
- U.S. National Policy Systems
- Managerial Economics and Policy Analysis
- Transportation Economics
- Metropolitan Transportation Policy
- International Transportation Logistics
- Policy and Program Evaluation
- Transportation Planning & Policy

Admission to a certificate program requires formal application to the School of Public Policy. Please refer to <http://policy.gmu.edu> for information about the school and about the application process.

Students pursuing a master's degree within the School of Public Policy who complete an additional nine semester hours in a specified emphasis will receive a certificate in addition to their master's degree.

SPP Administration and Faculty

Kingsley E. Haynes, Ph.D.	Dean	khaynes@gmu.edu	(703) 993-4108
James H. Finkelstein, Ph.D.	Vice Dean	jfinkel@gmu.edu	(703) 993-2269
Roger S. Stough, Ph.D.	Associate Dean for Research and Development	rstough@gmu.edu	(703) 993-2285
Jonathan L. Gifford, Ph.D.	Director, Master's in Transportation Policy, Operations & Logistics	jgifford@gmu.edu	(703) 993-2275
Leslie M. Levin	Assistant Dean of Graduate Admissions and Marketing	lmetzger@gmu.edu	(703) 993-8099
Tennille Haegele	Assistant Director of Graduate Admissions	thaegele@gmu.edu	(703) 993-8099
Jill V. Emerson	Assistant Dean of Student Services	jemerson@gmu.edu	(703) 993-8209
Duane D. Bradshaw	Associate Director of Career Development	dbradsha@gmu.edu	(703) 993-3188
Silva Pecini	Assistant Director of Student Services	specini@gmu.edu	(703) 993-4157
Nancy Dunham	Assistant Director of Student Services	ndunham1@gmu.edu	(703) 993-4975
Jocelyn S. Rappaport	Director of Communications	jrappapo@gmu.edu	(703) 993-8218
Jennifer L. Torney	Arlington Campus Administrator	jtorney@gmu.edu	(703) 993-3179
Darcelle Campbell	Arlington Campus, Administrative Assistant	dcampbe3@gmu.edu	(703) 993-8200
William H. Coester	Administrator	wcoester@gmu.edu	(703) 993-2261
Susan McClure	Assistant to the Dean	mmclure@gmu.edu	(703) 993-4108
Tim Crean	Office Manager, Transportation Policy, Operations & Logistics	tcrean@gmu.edu	(703) 993 4996

TPOL FACULTY

- Brien Benson**, Research Associate Professor and Manager, National Center for ITS Implementation Research; Ph.D, George Mason University, 1998. Intelligent transportation systems, transportation, public policy.
- ***Kenneth J. Button**, Professor of Public Policy; Ph.D., Loughborough University, U.K, 1981. Transportation economics and policy, economics of regulation, aviation policy, analytic modeling, policy analysis.
- Jack Fearnside**s, Senior Research Associate and Research Professor; Senior Strategic Consultant to the President, Lockheed Martin Air Traffic Management; Ph.D., University of Maryland, 1971.
- ***Jonathan L. Gifford**, Director, Master's in Transportation Policy, Operations & Logistics, and Professor of Public Policy; Ph.D., University of California, Berkeley, 1983. Transportation policy & planning, intelligent transportation systems, infrastructure management and policy.
- ***Kingsley E. Haynes**, University Professor and Dean, School of Public Policy; Ph.D., Johns Hopkins, 1970. Infrastructure, regional economic analysis, regional development and policy.
- Robert J. Ravera**, Adjunct Professor; Ph.D., Lehigh University. Aviation policy.
- ***Laurie Ann Schintler**, Assistant Professor of Public Policy; Ph.D., University of Illinois at Urbana-Champaign, 1995. Regional development, transportation, and quantitative methods.
- ***Roger R. Stough**, NOVA Endowed Chair and Professor of Public Policy, and Associate Dean for Research and Development, School of Public Policy; Ph.D., Johns Hopkins, 1978. Intelligent transportation systems institutional issues, relationships between transportation and economic development, technology-led regional economic development.
- Irvin S. Varkonyi**, Adjunct Professor, MBA, American Graduate School of International Management, 1976. Logistics, supply chain management, transportation security.

* Faculty indicated with an asterisk also serve on the School of Public Policy Core Faculty

SCHOOL OF PUBLIC POLICY FACULTY

The SPP Faculty includes the George Mason University faculty whose primary appointments are in SPP, as well as several members from the Departments of Public and International Affairs, Sociology and Anthropology; and the School of Information Technology and Engineering.

Zoltan J. Acs, University Professor; Ph.D., The New School, 1980. Mathematical economics; microeconomics; macroeconomics; managerial economics and public policy; the global economic environment; technology management; entrepreneurship and innovation; new venture creation; global and domestic business environment; global and domestic business environment.

Mark Addleson, Associate Professor; Ph.D., University of Witwatersrand, 1992. Knowledge management; organizational change; learning organizations; methodology of social inquiry; Austrian economics.

David J. Armor, Professor of Public Policy; Ph.D., Harvard University, 1966. Education policy; family policy; welfare policy; civil rights/race relations policy (desegregation, affirmative action); military manpower; methodology (statistical analysis, survey design).

Philip E. Auerswald, Assistant Professor; Ph.D., University of Washington, 1999. Innovation; entrepreneurship; economics of security; energy policy.

Ann Baker, Associate Professor and Director, Organization Development & Knowledge Management; Ph.D., Case Western Reserve University, 1995. Organization change; group & organization communication to promote innovation; knowledge management; cross-cultural communication.

Kenneth J. Button, University Professor; Ph.D., Loughborough University, U.K., 1981. Transportation economics; transport planning; economics of privatization and regulation; environmental economics; regional economics; urban economics.

Desmond Dinan, Professor of Public Policy and Jean Monnet Chair; Ph.D., National University of Ireland, 1985. Global governance; European Union institutions, history and historiography.

Michael K. Fauntroy, Assistant Professor of Public Policy; Ph.D., Howard University, 2001. American government and politics; race and public policy; urban policy; District of Columbia governance.

James H. Finkelstein, Professor and Senior Associate Dean; School of Public Policy; Ph.D., The Ohio State University, 1980. Education policy and qualitative research methods.

Allison Friendak-Blume, Assistant Professor of Public Policy and Academic Director, Peace Operations Policy Program; Ph.D., George Mason University, 2004. Conflict analysis and resolution, international peacekeeping.

A. Lee Fritschler, Professor of Public Policy; Ph.D., Maxwell School of Citizenship and Public Affairs, Syracuse University, 1965. U.S. national government (Executive); relationship between the institutions of government; accountability; regulation; federalism; public management; science and public policy; higher education policy; U.S. Postal Service and communications policy.

Stephen S. Fuller, Dwight Schar Faculty Chair and University Professor of Public Policy and Regional Development; Ph.D., Cornell, 1969. Regional economic development; urban development; housing; urban planning; demographics; the Washington area's development; economic analysis; labor force; forecasting population, income, employment, real estate development; economic and fiscal impact analyses; economic development in developing countries.

Jonathan L. Gifford, Professor of Public Policy and Director, Transportation Policy, Operations, and Logistics Program; Ph.D., University of California, Berkeley, 1983. Transportation policy and planning; infrastructure policy and planning; urban and metropolitan planning and land use; technology standards and public policy; transportation and regional development policy; transportation finance and privatization.

Jack A. Goldstone, Virginia E. Hazel and John T. Hazel, Jr. Professor of Public Policy and Director, Public Policy Doctoral Program; Ph.D., Harvard University, 1981. Democratization; civil conflict; state failure and reconstruction; long-term social change; sources of economic growth.

Thomas R. Gulledge, Professor of Public Policy and Engineering; Ph.D., Clemson, 1981. Organizational informatics; enterprise integration.

David M. Hart, Associate Professor; Ph.D., Massachusetts Institute of Technology, 1995. Science and technology policy; business and politics; lobbying and representation; U.S. public policy process; U.S. policy history, especially business, economic and political history; international migration; entrepreneurship; global governance.

Kingsley E. Haynes, Ruth D. and John T. Hazel M.D. Endowed Chair and Eminent Scholar, Professor and Dean, School of Public Policy; Ph.D., Johns Hopkins University, 1970. Regional economic development and policy; infrastructure and transportation policy; knowledge management models; resource planning and analysis.

Jack C. High, Professor of Public Policy, Economics and Social Learning; Ph.D., UCLA, 1980. Economic regulation; economic growth; economic history; international trade and investment; international institutions.

Christopher T. Hill, Professor of Public Policy and Technology; Ph.D., University of Wisconsin, 1969. Science policy; technology policy; industrial innovation; R&D management; comparative science policy; Space; energy; homeland security policy and planning.

Andrew Hughes Hallet, Professor of Public Policy and Economics; DPhil, University of Oxford (Nuffield College), 1976. Open economy macroeconomics; policy coordination and exchange rate management; monetary integration (monetary and fiscal union in Europe); political economy models; fiscal policy; regionalism, policy choice and reform; the theory of economic policy and institutional design; dynamic games and bargaining models; risk and decisions under uncertainty; commodity markets, financial policy and strategic trade policy; numerical methods in economics.

Michael R. Kelley, Professor of Telecommunications; Ph.D., Catholic University of America, 1970. Telecommunications policy; policies for managing scarce radio frequency spectrum; government organizations and their approach to managing a variety of public assets (oil, gas, fishing, hunting, etc.).

Naoru Koizumi, Assistant Professor; Ph.D., Hyogo College of Medicine, Japan, 2005, and University of Pennsylvania, 2002. Stochastic modeling; simulation of health care systems; applied statistics in health care; spatial statistics and applications of geographic information systems (GIS) in public health.

Andrew Krepinevich, Distinguished Visiting Professor of Public Policy, Ph.D., Harvard University, 1984. Strategic Planning; Military Balance Assessments; Organizational Learning; National Security Strategy.

Todd M. LaPorte, Associate Professor; Ph.D., Yale University, 1989. Technologies and organizations; technology and society; technology and politics; technology in politics; technology assessment and policy analysis; information and communications technologies; energy technologies; digital government, both worldwide and in the U.S.; comparative political and economic systems, particularly European; critical infrastructures; large technical systems; high reliability organizations and organizational failure; organization studies; public management and public administration; qualitative methods; data collection methodologies.

Siona R. Listokin, Assistant Professor, Ph.D., University of California, Berkeley, 2007. Public finance; political economy; retirement and welfare policy; public management; private regulation.

Stuart S. Malawer, Distinguished Service Professor of Law & International Trade; Ph.D., University of Pennsylvania, 1976; Diploma, Hague Academy of International Law (Research Centre for International Law & International Relations) 1971; J.D., Cornell Law School, 1967. U.S. trade law; global trade law; global trade relations; World Trade Organization (WTO).

Monty G. Marshall, Research Professor, School of Public Policy. BA 1988, University of Colorado; MA 1990, University of Maryland; PhD 1996, University of Iowa.

Jeremy D. Mayer, Associate Professor and Director, Master of Public Policy Program; Ph.D., Georgetown University, 1996. Public opinion; racial politics; foreign policy; presidential elections; statistical methods; survey methods; media politics.

Connie L. McNeely, Associate Professor of Public Policy; Ph.D., Stanford University, 1990. Culture and policy; states and society; international development; complex organizations and institutional analysis; comparative education; race, ethnicity, and nations; gender; social theory.

Arnauld Nicogossian, Distinguished Research Professor; M.D., Teheran University, 1964; Internal Medicine, Mount Sinai Medical Center/Elmhurst City Hospital, NY; M.S., Ohio State University, 1972; Board Certified Preventive Medicine/Aerospace Medicine, 1973. Public health policy; program/project management; strategic planning and execution of research and development; health and medical policy analysis; global public health; aerospace medicine; internal medicine.

Wayne D. Perry, Professor of Public Policy and Operations Research; Ph.D., Carnegie Mellon University, 1975. Science and technology; defense; international security and arms control; healthcare; operations research/management science; statistical models; stochastic processes; managerial economics and econometrics; policy analysis; cost-benefit analysis.

John E. Petersen, Professor of Public Policy; Ph.D., University of Pennsylvania, 1967. Public finance (government finance), both domestic (state, local, federal) and international; international finance and financial institutions.

James P. Pfiffner, University Professor of Public Policy; Ph.D., Wisconsin, 1975. The presidency; Congress; American national government and policy process; public administration.

Ramkishan S. Rajan, Associate Professor of Public Policy; Ph.D., Claremont Graduate University, 2000. International economics (open economy macroeconomics, finance, and trade) with particular reference to Asia.

Kenneth A. Reinert, Associate Professor of Public Policy and Director, International Commerce and Policy Program; Ph.D. University of Maryland, 1988. International trade policy; international development policy; multilateral development organizations; foreign direct investment.

James D. Riggle, Research Associate Professor, Ph.D., George Mason University, 2002. American government and politics, regional economic development.

Charles S. Robb, Distinguished Professor of Law and Public Policy, J.D., University of Virginia, 1973.

Hilton L. Root, Professor of Public Policy; Ph.D., University of Michigan, 1983. International economics; international finance; international development; developing nations; political economy of the design and implementation of development policy, economic policy reform; North-South relations and Asian-Pacific affairs.

Mark J. Rozell, Professor of Public Policy; Ph.D., University of Virginia, 1987. The presidency; media and politics; religion and politics.

Catherine Rudder, Associate Dean for Academic Affairs; Ph.D., Ohio State University, 1973. American political institutions and politics; Congress; tax policy making; self-regulation; governance; non-profit institutions.

Stephen R. Ruth, Professor; Ph.D., University of Pennsylvania, 1971. Rationalization of technology-based learning interventions; technology diffusion in developing nations; religious/theological issues in public policy formulation.

Laurie A. Schintler, Associate Professor of Public Policy; Ph.D., University of Illinois at Urbana-Champaign, 1995. Critical infrastructure; transportation; quantitative methods; regional development.

Louise Shelley, Professor of Public Policy; Ph.D., University of Pennsylvania, 1977. Transnational crime; terrorism; corruption; human trafficking; Soviet successor states.

Martin Jay Sherwin, Professor of History and Public Policy; Ph.D., University of California – Los Angeles. The Cold War (foreign policy, domestic politics & culture); history of United States foreign policy; history of the nuclear arms race (diplomacy, politics, science, culture); science and public policy; film (documentary and feature) and history.

Carlos E. Sluzki, Research Professor; M.D., University of Buenos Aires, 1960. Social networks; refugees; migration; violence.

Rainer Sommer, Associate Professor of Public Policy, and Director, Enterprise Engineering and Policy Program; Ph.D., Columbia Pacific University, 1991, and George Mason University, 1998. Enterprise engineering and telecommunications.

Roger R. Stough, NOVA Endowed Chair and Professor of Public Policy, and Associate Dean for Research and Outreach, School of Public Policy; Ph.D., Johns Hopkins, 1978. Regional economic development policy and analysis; information technology policy; transportation policy; entrepreneurship.

Tojo J. Thatchenkery, Professor of Organizational Learning; Ph.D., Case Western Reserve University, 1994. Organizational learning and development; knowledge management; ethnicity, organizational mobility, and diversity; information communication technology (ICT) and development of Southeast Asia.

Susan Tolchin, University Professor; Ph.D., New York University, 1968. Public policy theory; federal government (US); federal regulation; ethics.

Janine R. Wedel, Professor; Ph.D. University of California, Berkley, 1985. Governing; corruption and the state; foreign aid; social networks; eastern Europe; anthropology of public policy.

Alexander E.R. Woodcock, Professor; Ph.D., University of East Anglia, England, 1968. Mathematical modeling and analysis; command and control and combat modeling.

Selected Affiliated Faculty

Kevin Avruch, Professor of Anthropology; Ph.D., University of California, San Diego, 1978.
Timothy Conlan, Associate Professor of Government and Politics; Ph.D., Harvard, 1981.
Thomas Dietz, Professor of Sociology; Ph.D., University of California, Davis, 1979.
George L. Donahue, Professor of Systems Engineering and Operations Research; Ph.D., Oklahoma State University, 1972.
Robert L Dudley, Associate Professor of Government and Politics.
Terry L. Friesz, Professor of Systems Engineering & Operations Research; Ph.D., Johns Hopkins University, 1977.
Gregory A. Guagnano, Associate Professor of Sociology; Ph.D., University of California, Davis, 1986.
Hugh Hecllo, Robinson Professor of Public Affairs; Ph.D., Yale University, 1970.
James T. Hennessey, Chief of Staff; Ph.D., George Mason University, 1997.
Julianne G. Mahler, Associate Professor of Government and Politics; Ph.D., State University of New York, Buffalo, 1976.
John Paden, Robinson Professor of International Studies; Ph.D., Harvard University, 1968.
Priscilla M. Regan, Associate Professor of Government and Politics; Ph.D., Cornell University, 1981.
Joseph A. Scimecca, Professor of Sociology; Ph.D., New York University, 1972.
Edgar H. Sibley, University Professor; Sc.D., Massachusetts Institute of Technology, 1967.

Instructional and Research Faculty

Brien Benson, Research Associate Professor; Ph.D., George Mason University, 1998.
Audrey E. Clarke, Research Professor; Ph.D., Kent State University, 1992.
George Cook, Affiliate Professor; A.B., George Washington University, 1957.
David F. Davis, Research Assistant Professor, School of Public Policy; M.S. (Applied Mathematics), 1981, M.S. (Operations Research), Naval Postgraduate School, 1981.
Lisa Fowler, Research Assistant Professor; Ph.D., George Mason University, 2006.
Roger G. Harrison, Distinguished Visiting Professor; Ph.D., Claremont Graduate School, 1979.
Arthur S. Melmed, Research Professor; M.S.E.E., Columbia University, 1956.
Jean P.H. Paelinck, Distinguished Visiting Professor, Doctor of Law, University of Liege, Belgium, 1954.
Alexander E.R. Woodcock, Research Professor; Ph.D., University of East Anglia, England, 1968.

Adjunct Faculty

Simon Bensimon, Ph.D.	Robert A. Rogowsky, Ph.D.
Nirmala Cherukupalle, Ph.D.	John Rosenwasser, Ph.D.
Michael Curtis, Ph.D.	Bonnie Stabile, Ph.D.
Brent Eastwood, Ph.D.	John Sullivan, Ph.D.
G. Daniel Gaske, Ph.D.	Marc Thilbault, Ph.D.
Delio Gianturco, M.A.	George W. Thompson, J.D.
John Gordon, Ph.D.	Cathryn Q. Thurston, Ph.D.
David Muhlhausen, Ph.D.	Irvin Varkonyi, M.B.A.

Course Descriptions

Core Courses

PUBP 501 *Policy and Organizational Analysis* (4 credits)

This course prepares students to engage in systematic analysis, both qualitative and quantitative, and constitutes the foundation for advanced analytic techniques. The course will emphasize research design, application of data analysis techniques, and presentation, including writing for professional and lay audiences.

PUBP 502 *Governance and Policy Processes* (4 credits)

This course assesses governance processes in public and private organizational settings on the basis of economic and political standards such as efficiency, accountability, and responsiveness to societal needs in a rapidly changing global environment. Using cases, simulations, and fieldwork, students learn to evaluate the quality of institutional governance in specific venues and to appraise the implications for public policy.

PUBP 503 *Culture, Organization and Technology* (4 credits)

This course focuses on the influence of culture in societal, political, economic, and technological processes, nationally and internationally. Culture is seen as dynamic and interactional. Using case studies, students learn pertinent approaches to the study of culture, from the analysis of organization and social networks to that of belief systems and identities. Students also develop practical skills in observation, participation, and intervention.

PUBP 715

Introduction to Transportation Systems

Transportation is a service that contributes substantially to the well being of advanced economies. The resource requirements and byproducts of transportation also pose sobering environmental challenges for society. This course examines the history and development of transportation systems, their contribution to and impact on society, the institutions and practices that govern their planning, design, construction, operation, maintenance, and retirement from service, the policy and managerial challenges that they pose, and the tools and techniques available for addressing them.

PUBP 716

Transportation Policy, Operations and Logistics

This course provides a survey of freight logistics issues, methods, problems, and strategies. Topics include: origins of logistics, industry structure, pricing, underwriting, rate making, compliance, inventory effects, just-in-time inventory management (JIT), materials requirements planning (MRP), customer service and order processing operations, sales functions and operations, dispatch/fleet manager functions and operations, rate-setting between three parties, typical document flow (electronic and paper), routing and scheduling; route selection, satellite load tracking – through dispatch – customer web inquiry, role of ITS in route selection, toll system use, congestion, training activities, logistics markets.

PUBP 718

Transportation Planning and Policy

This course is an introduction to highway, rail, air and water transport planning in the United States. Students will learn about the legislative, organizational, fiscal, legal and political environment within which planning for transportation facilities and services takes place. The course will also introduce the student to some of the technical and analytical methods for transportation planning. While the focus of the course is largely on the public sector, some consideration of commercial transport planning and the role of the private sector in helping to design, manage, and finance transport systems is also considered.

PUBP 721

Transportation Economics

Provides a basis for understanding the economics of the transport system and how transportation relates to urban and regional development. The course treats transport generically, but includes case studies of specific modes.

PUBP 722**Practicum in Transportation Policy, Operations & Logistics**

Engages students in an in-depth field study of ongoing transportation policy, operations, or logistics situations, and the design and delivery of actions to manage or resolve problems and opportunities. The range of application areas for these practica depends jointly on the particular interests of the student body and opportunities faculty identify for “clients” or real-world projects. Illustrative domain areas include surface transportation (highways and transit), airports, and aviation.

Elective Courses**PUBP 717****Analysis for Transportation Managers**

This course introduces basic methods of transportation analysis and evaluation and relates these to a policy framework. Methods covered include descriptive statistics, hypothesis testing, contingency tables (Chi-Square analysis), regression, optimization, demand elasticities and the gravity model. Sources of transportation data and research design are also covered. While the student will learn the mathematical base and logic of each technique, the application of these methods to relevant policy and management problems will be the primary emphasis of the course. Students will be required to complete a series of assignments along with a research proposal focused on applying one or more of the methods to a problem of their own interest.

PUBP 601**Theory & Practice of Regional Development**

Focuses on traditional theories of economic development (economic base, growth pole, infrastructure investment, location theory, central place theory) as well as non-traditional perspectives, emphasizing application of theory to practice through case studies.

PUBP 710**Topics in Public Policy**

Focuses on selected topics in public policy not covered by fixed-content public policy courses.

PUBP 714**Topics in Transportation Policy, Operations and Logistics**

Current issues in transportation policy, operations, and logistics in the U.S. and abroad. Practical applications of theories and analysis to policy problems are included. Competence in improving policy in selected domains is emphasized. Note: may be taken up to three times and simultaneously for sections addressing different subject matter

PUBP 719**Transportation Law**

Legal issues in transportation policy, operations, and logistics are pervasive. Laws are a fundamental part of the general context of business and govern a vast range of issues from labor relations, environmental controls, right of way procurement and eminent domain, liability, rights and responsibilities in international contracts and services. Regulation of price and service was also a long tradition in the U.S. beginning in the 19th century, and abandoned in most respects beginning in the late 1970s. This course examines the legal environment of transportation. Topics include: basic legal concepts and institutions, history and evolution of price and service regulation, environmental law and regulation, labor relations, and property.

PUBP 723**Metropolitan Transportation Policy & Planning**

This course is an advanced study in metropolitan transportation planning and policymaking. Students will explore in some depth the history and evolution of transportation planning in the United States, a variety of current issues in transportation planning and analytical methods used in the planning process. The course will use Washington, D.C. as a case study throughout the semester. Students will be asked to participate in weekly discussions of these topics and complete a research paper focusing on a transportation policy or planning issue of interest.

PUBP 724**Intelligent Transportation Systems & Technology**

This course provides an overview of intelligent transportation systems (ITS), which include a wide range of information technology applications to surface transportation. Categories of ITS include traffic management systems, traveler information systems, fleet control systems, commercial vehicle regulation systems, transit systems, rural systems, and vehicle control systems. Key institutional and policy issues involve the appropriate federal role in ITS; state and local government collaboration; public-private partnerships; how privacy interests can be protected as ITS surveillance and enforcement technologies become increasingly sophisticated; and how driver information systems, including cell phones, can be used to optimal advantage without burdening drivers with “information overload.”

PUBP 725**International Transportation Logistics**

The increasing internationalization and globalization of markets is producing new challenges for transportation services. The challenges are not only in terms of offering efficient and effective freight transportation options, but also in terms of the international movement of people both as part of international trade and as part of direct consumer services such as tourism. Technology shifts have created new supply conditions to meet the new demands of international commerce that transcend transportation to embrace communications. The changes are also embedded in new institutional structures, including liberalized regulatory regimes and the emergence of international bodies such as the WTO that are beginning to influence the trade in transportation services themselves. This course is concerned with making an efficient match between these new demands on transportation and the ways they can be met. Topics covered embody a multidisciplinary approach to international transportation logistics drawing on economics, law, information technology, and network analysis. Subjects covered include international supply-chain management, global performance indicators, international inter-modal transportation, air-freight logistics, new technologies, and border-crossing issues.

PUBP 727**Transportation Evaluation**

Transportation impinges on many aspects of life, some economic, some social and some political. The provision and operation of transportation services, therefore, involves a wide-range of trade-offs. The aim of this course is to look at the range of evaluation techniques and concepts that are applied in making decisions over such matters as transportation investments, transportation operating strategies and public policy as it affects transportation. The course will involve considering both the theory and concepts involved, together with more detailed assessments of standard evaluation methods used in the US and elsewhere. A number of case studies will be reviewed in depth.

PUBP 728**Fleet Operations**

The course provides an overview of the most important factors affecting fleet operations today. Topics include: goals for government fleet operations, goals for privately owned fleets (truck, rail, air, water modes), pro-forma cost analysis, fleet operations including route and vehicle and operator selection, asset-based versus non-asset based fleets, fleet design and make-up based on multiple objectives, scheduled maintenance requirements and trade-offs, shared capacity issues (trailers, containers, consolidators), reverse logistics policies, costs, operations, environmental constraints on fleets (fuels, waste, emissions), fuel logistics (purchasing, location, cost), fleet decision-making (en-route changes, delays, and environmental challenges, competitive and market challenges and opportunities in fleet management.

PUBP 729**Transportation Asset Management**

This course introduces the main elements of Transportation Asset Management, a subject that has attracted significant attention, both in the U.S. and internationally over the past decade. It is a response to a number of developments that have challenged the traditional framework for transportation service delivery, including changes in the transportation environment; a shift in the public’s attitude towards the provision of public goods; and extraordinary advances in communication and computer technologies. The adoption of transportation asset management poses significant challenges on both the organizational structure and the existing knowledge-base

- within transportation agencies. This course provides an overview of these challenges and introduces theoretical frameworks within which the challenges may be analyzed.
- PUBP 732** **Transport and the Environment**
 The aim of this course, which is multi-disciplinary in its orientation, is to examine the implications of transportation and to look at ways in which public policy has attempted to handle them and at ways in which policy may move in the future. It looks at all modes of transportation and at most of the environmental ramifications.
- PUBP 741** **U.S. Financial Policy Processes and Procedures**
 This course examines the executive financial and budget management processes in the federal and state government systems, as well as parallel processes in the other nonprofit sectors, including management control, financial statements, cost accounting, control structures, performance reporting, and management information systems for fiscal control.
- PUBP 742** **Transportation Safety and Security**
 Transportation safety has long been a paramount consideration in the design, construction, operation and regulation of transportation systems. In recent years, the security of transportation systems has become increasingly important, in light of breaches such as aircraft hijackings and truck bombs. This course examines transportation safety and security from a multimodal perspective for both passenger and freight. Topics include: historical context and policy framework, regulation, institutional issues, new security arrangements for preventing organized terrorist attacks, infrastructure design, vehicle design, operating protocols, and information systems.
- PUBP 745** **Transportation and the Environment**
 Multidisciplinary examination of implications of transportation and ways public policy has attempted to handle them, and how policy may move in the future. Explores all modes of transportation and most environmental ramifications.
- PUBP 746** **Maritime Policy, Operations and Logistics**
 This course examines how the international maritime transportation system has evolved, and discusses its current challenges and options for future developments. Maritime shipping is an ancient enterprise that has dominated transportation since long before industrialization led to the development of steam propulsion, railroads, motor trucks, and airplanes. Topics include: globalization, e-commerce, just-in-time manufacturing, quick response capabilities, and integrated logistic systems, and the relevance of maritime transportation, especially in light of emerging technological advances.
- PUBP 747** **Air Transportation Policy, Operations, and Logistics**
 Aviation is a form of transportation with global reach. This course reviews the evolution of various forms of air transport; i.e. airlines, general aviation and military aviation and includes at least the following topics: the basics of airline economics, especially as they intersect with airline operations and the management of hub and spoke networks; air traffic control technologies and operations and their intersection with airline economics; safety and security technologies and regulations; the future of the various elements of air transportation; and the effects of deregulation on air travel.
- PUBP 748** **Public Transit Policy, Operations and Logistics**
 Public transportation plays an important role in providing mobility in both urban and rural areas. This course provides a general system description for the components comprising the typical publicly funded transit property. Topics include: organizational structure, historical context, budget development including operating and capital budgets, personnel and labor relations, regulatory framework, operations management (bus and commuter rail), the reporting structure (e.g., appointed boards), customer service and contracted operations. The course also discusses current topics of interest, such as security of transit systems and transit's role in the pursuit of air quality.

PUBP 749**Highway Transportation Policy, Operations, and Logistics**

Highways have played a central role in the development of the American transportation system. In particular, the Interstate highway system has revolutionized both freight and passenger transport. This course examines the history and development of the highway system, the institutions responsible for its development and ongoing operation, its environmental impacts and efforts to mitigate them, the emerging emphasis on operations and management of the highway system, and its role in the freight logistics and supply chain management system.

PUBP 752**Infrastructure Finance**

This course covers the planning, budgeting and financing of infrastructure, including air, water and surface transportation, public utilities, and other major public works. It focuses on private capital markets for projects funding as well as domestic and international loan and grant programs.

PUBP 794**Internship**

Prerequisite: 12 PUBP credits or permission of instructor. Open only to TPOL students. Contact TPOL Program director one semester before enrollment. Work-study programs with specific employers. Credit is determined by the TPOL Program.

School of Public Policy Student Services

Advising

The Office of Student Services works in conjunction with faculty advisors to counsel students on academic issues through the exploration of the students' academic, career, and personal goals. The Student Services staff is available to assist students with course selection and the registration process as well as the interpretation of academic regulations and policies. The office also helps students track their progress towards degree completion and provides resource referral when students are in need of specialized assistance.

Career Development

The School of Public Policy (SPP) offers comprehensive career services at the Arlington campus. The Student Services staff provides one-on-one assistance reviewing resumes and cover letters, exploring your career goals, identifying employment opportunities, and providing you with the skills needed to do a successful career search. We publish a weekly Career Services Newsletter which includes information on job postings, local events, career fairs, and networking events.

A number of workshops and information sessions are offered every semester. Examples of past events include "Finding and Securing a Federal Government Job", Foreign Service Information Session, Job Search Strategies, Job Search Strategies for F-1 International Students, Peace Corp Information Session, "What is the Presidential Management Internship Program," and "Developing your KSA's for the Federal Government Application".

During the Spring semester, SPP sponsors an annual career fair on the Arlington campus. In recent years, employers in attendance have included: U. S. Department of State, The Heritage Foundation, Congressional Budget Office, Macfadden & Associates, Inc., US Department of Commerce, and Clean Water Action. For more information on upcoming Career Development workshops and events, and to view our newsletter go to: <http://policy.gmu.edu/career>.

Alumni Relations

We launched the SPP Alumni Association (SPPAA) in the Fall of 2002. We have around 3,000 alumni, 2,100 of whom reside in the DC metro area. We maintain a database of Chapter members who serve as a source of information, career guidance, and mentoring for current students. In addition, the chapter sponsors workshops, networking events, and socials. For more information on SPPAA, go to: <http://policy.gmu.edu/alumni>.

Internships

Internships provide an opportunity for students to gain real world, practical experience and professional skills that will complement their academic program and enhance their career opportunities. Past internship hosts have included the US Department of Commerce, Department of State, Office of Management and Budget, USDA Foreign Agricultural Service, the US International Trade Commission, the Academy for Academic Development, and the Benton Foundation. Internship credit is available to all of our degree seeking master's students. The Office of Student Services is available to assist you with your internship search.

Admissions and Application Procedures

Applications are invited for Fall and Spring semesters, for both full-time and part-time study. Applicants seeking degree admission to the **Master of Arts in Transportation Policy, Operations, and Logistics** must follow the admissions procedures as outlined below.

Courses are open to all students who hold a bachelor's degree or equivalent from an accredited university or college in any field. A minimum undergraduate grade point average of 3.00 (on a 4.0 scale) is preferred.

Students may be admitted for non-degree study, which allows the student to take individual courses, and apply the courses to degree study in the Master of Arts in Transportation Policy, Operations & Logistics.

The GMU graduate application process requires the applicant to submit a complete set of documents with the application. All application credentials must be received before applications will be reviewed. Please review pages 1-5 of the Graduate Application for more detailed instructions; to download a GMU graduate application visit: <http://admissions.gmu.edu/grad/>.

1. Graduate application and the \$60.00 online application fee (\$75 if applying via paper application). There are no fee waivers. **Please note** that when completing the online application, you will be required to submit this fee by credit card payment.
2. A 750-1000 word written statement of student's goals and interest for the program.
3. A current resume.
4. Two copies of official transcripts of all university work completed.
Students presenting international credentials must provide official transcripts, degree certificates or diplomas, and certified translations of the documents in English (if applicable).
5. Two letters of recommendation. At least one recommendation should be from an individual who is qualified to attest to the candidate's academic potential.
6. TOEFL scores (required for international applicants) – minimum score of 575 (paper-based), 230 (computer-based), or 88 (internet-based.) ****Please note that students submitting internet-based exam results must earn a minimum score of 20 on each individual exam section. An official score report is required. In addition, students may be required to be tested by the GMU English Language Institute.**
7. International Graduate Student Form (required for international applicants who are requesting an F-1 or J-1 visa) – submit completed form along with required supporting financial documents with your application.

Please Note: All students seeking funding consideration from the School of Public Policy in the form of Merit-Based Scholarships are required to submit Graduate Record Examination (GRE) scores. Those seeking Federal Financial Aid only are not required to submit GRE scores.

Application Deadlines: Applications are reviewed on a rolling basis; applicants are encouraged to apply early.

- **Fall** **Priority Deadline:** May 1: International Students*
June 1: Domestic Students
- **Spring** **Priority Deadline:** November 1: International Students*
December 1: Domestic Students

**Please adhere to the International student deadlines if you have done your undergraduate or graduate study outside of the U.S.*

Submit ALL application materials to:

*School of Public Policy - Graduate Admissions
3401 Fairfax Drive, MS 3B1
Arlington, VA 22201*

To Contact Graduate Admissions: Telephone: (703) 933-8099, Email: spp@gmu.edu

Financial Aid and Cost Information

George Mason University Federal Title IV School Code: 003749

For more information, visit the *GMU Financial Aid web site*: <http://financialaid.gmu.edu>

For more information, visit the *Student Accounts web site*: <http://studentaccounts.gmu.edu/>

1. Complete the Free Application for Federal Student Aid (FAFSA) or Renewal FAFSA Application and mail it to the federal processing center **as soon as possible after January 1st of the year** for which you are applying to receive financial aid. You do not have to be admitted to a degree program to complete the FAFSA application. To determine if you are eligible for need-based financial aid and to establish eligibility for alternative non-need based financial aid resources, you must apply each year.

You may also use the electronic FAFSA Express software to submit your application electronically. Applications received by the processing center after March 1st for the next academic year are considered "late" and cannot be given priority consideration, and may be reviewed only for Federal Pell Grants, Federal Direct Stafford Loans, and Federal Direct Parent loans. The federal processor should receive FAFSA applications **by March 1** to be considered "on-time"; however, you may still submit your FAFSA application after this date.

You can complete the FAFSA using ESTIMATED income and tax figures. If necessary, do this rather than missing the priority filing date. Be prepared to provide complete copies of your Federal tax returns, tax schedules, and W-2 forms if requested

2. Approximately 4-6 weeks after you mail the application you will receive a Student Aid Report (SAR). You must review it, and if it is not correct, make appropriate corrections, sign it and send Part 2 back to the federal processor.

3. If additional information is required to process your file, you will receive a Missing Information Letter from the Office of Student Financial Aid. You should respond to this request as quickly as possible. Failure to respond in a timely manner can drastically affect the amount of aid that you are offered.

4. After all information is received by the Financial Aid Office you will receive an award eligibility notification in the mail. This will include the types and amounts of aid you are offered and instructions for applying for the Federal Direct Stafford Loan program. If you are found ineligible for need-based financial aid, information will be provided to assist you in applying for an Unsubsidized Federal Direct Stafford Loan and/or a Federal Direct Parent Loan. For on-time new incoming First Year Students, this award notification should arrive sometime in April. For on-time new transfer students and returning students, this award notification should arrive sometime after May 1st.

Graduate Tuition and Fees for the 2008-2009 Academic Year:

In-State graduate tuition and fees:	\$545.00/credit hour
Out-of-State graduate tuition and fee:	\$1,003.00/credit hour

George Mason University Libraries and Resources

GMU Libraries have a vast array of resources to support students and faculty in their academic endeavors. These materials come in various formats, including books, journals, newspapers and electronic resources. The latter are of particular importance and most databases are accessible to students from off-campus. These include products such as *Lexis-Nexis*, *Dow Jones Interactive*, *JSTOR*, and *Economist Intelligence Unit (EIU)*, among many others.

The Arlington Campus Library is open from 8:00 a.m. to 10:00 p.m. weekdays, all day Friday and Saturday, and from 12:00 noon to 8:00 p.m. on Sunday. Professional librarians are available to serve GMU students, faculty and staff. The library supports 25 computer terminals, two photocopying machines, and two printers. GMU Libraries offer a personalized Ask-a-Librarian Service that enables patrons and a reference staff member to chat online in real-time. The service allows the reference staff to share web pages and other materials to assist patrons with their research.

As part of the Washington Research Library Consortium (WRLC), GMU students have use of major academic libraries in the Washington Metropolitan area, including The George Washington University, American University and Catholic University. Much of the document delivery from these universities is Web-based through the consortium loan service (CLS), as is interlibrary lending. (For a full list of the WRLC, see below.)

Further information can be obtained from GMU Libraries' website: <http://library.gmu.edu>

GMU Bookstores

GMU operates an Arlington Campus Bookstore. Both School of Public Policy and School of Law students, faculty, and staff can conveniently obtain required texts, educational supplies, and other items at the Arlington Campus.

Washington Area Consortium of Universities

Additionally, students are permitted to take up to six credits at other schools in the Washington Area Consortium of Universities. The schools in the Consortium are: American University, Catholic University of America, Gallaudet University, George Mason University, The George Washington University, Georgetown University, Howard University, Marymount University, Southeastern University, Trinity College, University of the District of Columbia, University of Maryland at College Park.

The Washington Research Library Consortium includes American University, Catholic University, Gallaudet University, George Mason University, George Washington University, Marymount University, and the University of the District of Columbia.

Directions to the George Mason University – Arlington Campus

Parking: Meter parking for GMU Campus Visitors is only available on surrounding streets. Parking in the GMU Lot is available only to registered GMU students with a valid *GMU – Arlington* decal.

By Metro:

Take the Orange Line to the Virginia Square (GMU Law School) Metro Stop. Crossover Fairfax Dr. and go to the right one block. We are in the GMU red brick building, next to the FDIC Building. Enter at street level and the ICP Office is the first office suite on the right.

By Car:

Via I-66 from D.C. - Take Interstate 66 West to Exit 71: Glebe Road/Ballston Exit in Arlington. Turn Left onto Glebe Road heading toward Ballston. Proceed to Fairfax Drive. Turn LEFT onto Fairfax Drive, proceed East for seven or eight blocks. You will see the GMU Campus on the LEFT (we are in the red brick building) next to the FDIC building.

Via I-66 from Fairfax - Take Interstate 66 East to Exit 71: Glebe Road/Ballston Exit in Arlington. The exit ramp turns into Fairfax Drive. Proceed East for seven or eight blocks. You will see the GMU Campus on the LEFT (we are in the red brick building) next to the FDIC building.

Via I-395 from D.C. - Take I-95 South. Take exit 7: Glebe Road North. Take a right onto Quincy Street (just before you reach the Ballston Center Mall). Make a RIGHT at the next light (Quincy and Fairfax Dr.) Follow Fairfax Dr. down for three blocks. You will see the GMU Campus on the LEFT (we are in the GMU red brick building) next to the FDIC building and new GMU Law School.

Via I-395 from the South - Take I-95 North. Take exit 7: Glebe Road North. Take a right onto Quincy Street (just before you reach the Ballston Center Mall). Make a RIGHT at the next light (Quincy and Fairfax Dr.) Follow Fairfax Dr. down for three blocks. You will see the GMU Campus on the LEFT (we are in the GMU red brick building) next to the FDIC building and new GMU Law School.

Via the Beltway (495) - Take the Beltway/495 to I-66 toward D.C. Take Interstate 66 East to Exit 71: Glebe Road/Ballston Exit in Arlington. The exit ramp turns into Fairfax Drive. Proceed east seven or eight blocks. You will see the GMU Campus on the LEFT (we are in the GMU red brick building) next to the FDIC building and new GMU Law School.