PKSC 4640* Food and Health Care Packaging Systems 4 (3) Characteristics, engineering properties, and applications of various materials and systems used in the packaging of foods, pharmaceuticals, and medical devices. Packaging systems for specific food and medical applications are considered. Laboratory and field exercises on food and medical packaging operations and packaging materials are included. Emphasis is on evaluation methods. Includes Honors sections. Coreq: Packaging Science major or minor or Food Science major or minor; and one of PKSC 2010 or FDSC 2140; and PKSC 2040. Coreq: PKSC 4641.

PKSC 4614* Food and Health Care Packaging Systems Laboratory 0 (3) Non-credit laboratory to accompany PKSC 4640. Coreq: PKSC 4640.

PLPA 3100 Principles of Plant Pathology 3 (2) Introduction to diseases caused by biotic and abiotic agents, symptom development, diagnosis, and identification of plant pathogens and Koch’s postulates are taught. Diagnosis of a wide variety of diseases of cultivated and wild plants is carried out. Offered summer session only. Coreq: PLPA 4110.

PLPA 3101 Principles of Plant Pathology Laboratory 0 (3) Non-credit laboratory to accompany PLPA 3100. Coreq: PLPA 3100.

PLPA (ENT) 4060* Diseases and Insects of Turfgrasses 2 (2) Host-parasite relationships, symptomatology, diagnosis, economics, and control of infectious diseases of turfgrasses and life histories, diagnosis, and control of important insect pests of turfgrasses. May also be offered as ENT 4060. Coreq: ENT 3010 and PLPA 3100.

PLPA (ENT) 4080* Diseases and Insects of Turfgrasses Laboratory 1 (3) Laboratory to complement PLPA 4060 or ENT 4060 to learn symptomatology, diagnosis, and control of infectious diseases of turfgrasses and diagnosis of damage caused by important insect pests of turfgrasses. May also be offered as ENT 4080. Coreq: PLPA 4060 or ENT 4060.

PLPA 4110* Plant Disease Diagnosis I 3 (2) Methods and procedures used in the diagnosis of plant diseases, especially late spring and early summer diseases. Basic techniques of pure culture and identification of plant pathogens and Koch’s postulates are taught. Diagnosis of a wide variety of diseases of cultivated and wild plants is carried out. Offered summer session only. Coreq: PLPA 3100. Coreq: PLPA 4111.

PLPA 4111* Plant Disease Diagnosis Laboratory I 0 (3) Non-credit laboratory to accompany PLPA 4110. Coreq: PLPA 4110.

PLPA (Biol) 4250 Introductory Mycology 3 (3) Introduction to the biology of all the groups of fungi and some related organisms, with considerations of the taxonomy, morphology, development, physiology, and ecology of representative forms. May also be offered as BIOL 4250. Coreq: BIOL 1040 and BIOL 1060; or BIOL 1140. Coreq or concurrent enrollment: BIOL 4260 or PLPA 4261.

PLPA (Biol) 4260 Mycology Practicum 2 (1) Application of the principles of mycological techniques, microscopic study of fungi. Examples from all major groups of fungi are included. May also be offered as BIOL 4260. Coreq or concurrent enrollment: BIOL 4250 or PLPA 4250. Coreq: PLPA 4261.

PLPA (Biol) 4261* Mycology Practicum Laboratory 0 (2) Non-credit laboratory to accompany PLPA 4260. May also be offered as BIOL 4261. Coreq: PLPA 4260.

PLPA (Biol) 4540 Plant Virology 4 (3) Study of plant viruses: their morphology, biochemistry, purification, and transmission; symptoms resulting from virus infection; virus vector relationships. Serological and nucleic acid hybridization procedures. Diagnosis of viral diseases and the identification of causal agents. Replication of plant viruses, the interaction between viral host and plant genome. Control of plant viral diseases. May also be offered as BIOL 4540. Coreq: BCHM 3010 or MICR 3050. Coreq: PLPA 4541.

PLPA (Biol) 4541* Plant Virology Laboratory 0 (3) Non-credit laboratory to accompany PLPA 4540. May also be offered as BIOL 4541. Coreq: PLPA 4540.

PLPA 4590* Plant Nematology 3 (2) Introduction to nematodes emphasizing plant parasitic nematodes. Introduces morphology of nematodes as it relates to their taxonomic position and ability to cause diseases. Includes diagnosis and control of nematode diseases, along with use of nematodes in studies of molecular interaction and genetics involvement in developing resistance. Coreq: PLPA 3100.

PLPA 4591* Plant Nematology Laboratory 0 (3) Non-credit laboratory to accompany PLPA 4590. Coreq: PLPA 4590.

PLPA 4700* Molecular Plant Pathogen Interactions 3 (3) Study of the interactions of plants and pathogens at the molecular level. Investigates the molecular and genetic components of plant disease and how these can be used for improvement and understanding of how diseases occur and how these can be used for possible disease management. Coreq: PLPA 3100.

PORTUGUESE

PORT 1010 Elementary Portuguese 4 (3) Introduction to speaking, listening, and writing. Attention is given to the sound system of Portuguese to develop basic communication skills. Coreq: PORT 1011.

PORT 1011 Elementary Portuguese Laboratory 0 (1) Non-credit laboratory to accompany PORT 1010. Coreq: PORT 1010.


PORT 1021 Elementary Portuguese Laboratory 0 (1) Non-credit laboratory to accompany PORT 1020. Coreq: PORT 1020.

PORT 2010 Intermediate Portuguese 3 (3) Intermediate course with more emphasis on communication skills and structure. Reading and writing practice in and outside the classroom, with special attention to idiomatic usage. Introduction to perspectives through readings and cultural activities. Coreq: PORT 2020.


POLITICAL SCIENCE

POSC 1010 American National Government 3 (3) Introduction to American national government and politics examining topics such as the Constitution, federalism, political institutions, political behavior, and political participation. Includes Honors sections.

POSC 1020 Introduction to International Relations 3 (3) Overview of both theory and practice in contemporary global politics. Topics include the structure of and primary actors in the international system; reasons conflict occurs; and roles of international institutions, law, and policy. Includes Honors sections.

POSC 1030 Introduction to Political Theory 3 (3) Introduction to major themes and thinkers in the Western tradition of political thought. Students examine classic primary texts of the ancient and modern periods, including Plato, Aristotle, Hobbes and Locke, to acquire a working conceptual vocabulary of normative and theoretical terms, political ideologies, and basic patterns of political organization. Includes honors sections.
POSC 1040 Introduction to Comparative Politics 3 (3) Introduction to the study of comparative politics in the post-Cold War era, with emphasis on theories and applications. Topics include democratic and non-democratic systems; ideology; political culture; party systems; and legislative, executive, and judicial structures. Includes Honors sections.

POSC 1990 Introduction to Political Science 1 (1) Introduction to political science as a discipline. Topics include an overview of the subfields within political science, core research methodologies and source materials, and ethical issues related to the study of political science.

POSC 3020 State and Local Government 3 (3) Introduction to American state and local governments, including examination of nature and scope of non-national governments and their interaction with the U.S. federal system. Emphasis is on structural features, functions, and policies of non-national governments.

POSC 3050 Creative Inquiry—Political Science 1-3 (1-3) Engages students in faculty-led research projects. May be repeated for a maximum of six credits. No more than three hours from POSC 3050, 3100, 3110, 3120, 3130, 4090, 4100 may be applied toward a Political Science major, minor, or a Global Politics minor. Preq: Consent of instructor.

POSC 3100 Political Science Internship 1-3 (1-3) Off-campus internship for at least one semester equivalent. May be repeated for a maximum of three credits. No more than three hours from POSC 3050, 3100, 3110, 3120, 3130, 4090, 4100 may be applied toward a Political Science major, minor or a Global Politics minor. No more than six hours from POSC 3100, 3110, 3120, 3130 may be applied toward any other degree. Preq: Consent of instructor.

POSC 3110 Model United Nations 1 (1) United Nations simulation exercises. May be repeated for a maximum of six credits. No more than three hours from POSC 3050, 3100, 3110, 3120, 3130, 4090, 4100 may be applied toward a Political Science major, minor, or a Global Politics minor. No more than six hours from POSC 3100, 3110, 3120, 3130 may be applied toward any other degree.

POSC 3120 State Student Legislature 1 (1) State student legislature simulation exercises. May be repeated for a maximum of six credits. No more than three hours from POSC 3050, 3100, 3110, 3120, 3130, 4090, 4100 may be applied toward a Political Science major, minor, or a Global Politics minor. No more than six hours from POSC 3100, 3110, 3120, 3130 may be applied toward any other degree.

POSC 3130 Clemson University Model United Nations Conference 1 (1) Facilitation of annual high school Model United Nations conference held on Clemson campus. No more than three hours from POSC 3050, 3100, 3110, 3120, 3130, 4090, 4100 may be applied toward a Political Science major, minor, or a Global Politics minor. No more than six hours from POSC 3100, 3110, 3120, 3130 may be applied toward any other degree.

POSC 3210 Public Administration 3 (3) Introduction to public administration, including the elements of organization, personnel and financial management, administrative law, and administrative responsibility. Preq: Sophomore standing.

POSC 3410 Quantitative Methods in Political Science 3 (3) Introduction to quantitative research methods in political science. Topics include research design, measurement, data collection, sampling procedures, and applications of statistical techniques to research problems in political science. Also stresses computer use for elementary data analysis.

POSC 3430 Mass Media in American Politics 3 (3) Role and impact of the mass media in the American political system, emphasizing the media's role in shaping public opinion and in influencing government and public policy. Preq: POSC 1010.

POSC 3610 International Politics in Crisis 3 (3) Factors contributing to the prevalence of tension and conflict in the contemporary global arena are identified and analyzed, with particular emphasis on political, economic, and military elements. Includes Honors sections. Preq: Sophomore standing.

POSC 3620 International Organizations 3 (3) Examines normative and institutional foundations of civil society. Explains the formal institutions, decision-making processes, and multilateral capacities of international governmental and nongovernmental organizations. Preq: Sophomore standing.

POSC 3630 United States Foreign Policy 3 (3) American foreign policy in historical perspective, with particular emphasis on the decision-making process, contemporary American capabilities and challenges, and analysis of key issues. Preq: Sophomore standing.

POSC 3710 European Politics 3 (3) Major emphasis on European governments and issues of importance in the European context. Current methods of comparison are studied and applied to the formal and informal functioning of European governments. Preq: Sophomore standing.

POSC 3720 Political Culture of East Asia 3 (3) Introduction to political culture that commonly characterizes East Asian countries, with emphasis on political subcultures of different nations, and on the analysis of the mutual influence between politics and culture. Preq: Sophomore standing.

POSC 3750 European Integration 3 (3) Survey course analyzing increasing institutional cooperation between European countries with a focus on the European Union. Includes Honors sections. Preq: Sophomore standing.

POSC 3810 African American Politics 3 (3) Examination of African American political thought, interests and agenda setting, and dynamics of African Americans' participation in political and governmental decision making. Preq: Sophomore standing.

POSC 3890 Selected Topics 1-3 (1-3) Study of a selected area of political science. May be repeated for a maximum of six credits, but only if different topics are covered. Preq: Junior standing.

POSC 3950 Junior Honors Research Seminar 1 (1) Readings and discussion to prepare for the Junior Research Paper and the Senior Thesis. Preq: Junior standing and membership in Calhoun Honors College.

POSC 3960 Junior Honors Research 1 (1) Readings and research in conjunction with an approved political science course at the 3000 or 4000 level. Preq: Junior standing and membership in Calhoun Honors College.

POSC 4030 United States Congress 3 (3) Examination of the evolution of Congress, congressional elections, the organization of the legislative branch, congressional rules and procedures, decision making, styles of representation, and policymaking. Preq: Sophomore standing.

POSC 4050 The American Presidency 3 (3) Examines the evolution of the presidency, the powers of the chief executive, the public presidency, executive branch organization and staffing, decision making, and political relations with Congress and the federal judiciary. Preq: Sophomore standing.

POSC 4070 Religion and American Politics 3 (3) Examines the impact of religion on American politics, including an analysis of the role of religion in politics, political behavior of major religious groups, constitutional issues and voting behavior. Preq: Sophomore standing.

POSC 4090 Directed Study in American Politics 1-3 (1-3) Supervised reading/research in selected areas of American politics. May be repeated for a maximum of six credits. No more than three hours from POSC 3050, 3100, 3110, 3120, 3130, 4090, 4100 may be applied toward a Political Science major, minor, or a Global Politics minor. Preq: Consent of instructor.

POSC 4100 Directed Study in International Politics 1-3 (1-3) Supervised reading/research in selected areas of international/comparative politics. May be repeated for a maximum of six credits. No more than three hours from POSC 3050, 3100, 3110, 3120, 3130, 4090, 4100 may be applied toward a Political Science major, minor, or a Global Politics minor. Preq: Consent of instructor.

POSC 4160 Interest Groups and Social Movements 3 (3) Empirical and normative examination of the origins, roles, and influence of interest groups and social movements in the United States and of the relationships among interest groups, social movements, and democratic theory. Preq: Sophomore standing.

POSC 4210 Public Policy 3 (3) Introduction to the major approaches to public policy making in American government. Topics include theories and models of policy making, the identification of policy problems, agenda setting, the formulation and adoption of policy, implementation, and program evaluation. Preq: Sophomore standing.

POSC 4230 Urban Politics 3 (3) Examines the nature and scope of politics in urban communities and offers an analysis of urban governance, especially in the interaction of public authority and private institutions in metropolitan areas. Emphasis is on the structure, processes, and problems challenging governments in urban America. Preq: Sophomore standing.

POSC 4240 Federalism and Intergovernmental Relations 3 (3) Introduction to the historical, theoretical, legal, and fiscal aspects of constitutionally divided government. Federal, state, and local division of responsibility for public services is emphasized, along with the emerging devolution of those responsibilities from the federal government to states and localities. Preq: Sophomore standing.
POSC 4280* National Security Policy 3 (3) National security threats and policy decision making. Issues covered include weapons of mass destruction, terrorism, organized crime, narcotics, arms control, intelligence, and homeland security. Students deliberate and assess threat priorities and crisis management. Preq: Sophomore standing.

POSC 4290* Global Issues 3 (3) Analysis, assessment, and management of the principal threats facing global security today. Topics include rogue nations, regional superpowers, alliances, organized crime, illegal weapons proliferation, and corruption. Emphasis is on the strategies available to the international community for dealing with these threats. Preq: Sophomore standing.

POSC 4300 Public Policy Evaluation 3 (3) Discussion of the role of policy analysis in government. Applications of analytical and computer tools to substantive policy areas such as transportation, economic/community development, education, poverty, and health. Students focus on assessing a policy from a set of options based on analytic criteria as well as developing policy alternatives. Preq: POSC 3410 or STAT 2300 or STAT 3300.

POSC 4360 Law, Courts, and Politics 3 (3) Introduces the principal features of the American legal system. Analyzes how and why legal actors and institutions operate as they do. Explores how the law functions as both a tool and an institution of government, as well as how the court system affects the formation and implementation of public policies. Preq: Sophomore standing.

POSC 4570* American Constitutional Law: Rights and Liberties 3 (3) Examination and analysis of Supreme Court decisions and other legal materials in the areas of civil rights and civil liberties, with an emphasis on freedom of speech, freedom of religion, equal protection of the laws, and privacy rights. Preq: Sophomore standing.

POSC 4580* American Constitutional Law: Structures of Government 3 (3) Examination and analysis of Supreme Court decisions and other legal materials in the areas of national power, federalism, the separation of powers, and the role of the judiciary. Preq: Sophomore standing.

POSC 4420* Political Parties and Elections 3 (3) Study of the distinctive features of the American two-party system with emphasis on presidential elections. Parties are examined as formal organizations, coalitions of voters and interest groups, coordinators of nomination and election processes, and managers of policy-making institutions. Preq: Sophomore standing.

POSC 4430 Political Behavior 3 (3) Offers students a comprehensive introduction to how individuals think, act and behave in their engagement in politics. Preq: Sophomore standing.

POSC 4470 International Law 3 (3) Study of the inherently political nature of international law and the ways in which international law relates closely to both international and domestic politics. This course examines the use, design and consequences of international law for a wide range of players in world politics. Preq: Sophomore standing.

POSC 4480* International Political Economy 3 (3) Provides students with background knowledge and conceptual tools for understanding the politics of contemporary international economic relations. Students are introduced to the major issues of the international political economy and different perspectives approaching these issues. Preq: Sophomore standing.

POSC 4490 Political Theory of Capitalism 3 (3) Examines the ethical foundations of capitalism. Focuses primarily on the major ethical theories that have supported or criticized capitalism throughout history. Topics include justification of private property, role of corporations, the profit motive, and the source of wealth creation. Preq: Sophomore standing.

POSC 4500 Special Topics in Political Theory 3 (3) Intensive examination of a selected political philosopher, conceptual area within political theory, or political thought of a particular era. May be repeated for a maximum of six credits, but only if different topics are covered. Preq: Sophomore standing.

POSC 4530 American Political Thought 3 (3) American political philosophy from the 17th century to the present with emphasis on political and social developments since the 1770's. Preq: Sophomore standing.

POSC 4540* Southern Politics 3 (3) Examination of the unique political environment of the American South, with emphasis on the events and social forces that have shaped politics in the region since World War II. Course material is approached from a variety of perspectives, including history, literature, social themes, and political culture. Preq: Sophomore standing.

POSC 4550 Political Thought of the American Founding 3 (3) Intensive seminar of the principles and practices of America’s founders (e.g., Washington, Adams, Jefferson, Madison, and Hamilton). Examines how American revolutionaries struggled between 1765 and 1788 to develop new ideas about rights, liberty, equality, constitutions, republicanism, separation of powers, representation, federalism, etc. Preq: Sophomore standing.

POSC 4560 Diplomacy: The Art of Negotiation 3 (3) Examines the conduct of foreign policy in the historical and contemporary context. Explores theories and key concepts of international negotiation, offering a comparative look at the behavior and practice of major powers. Preq: Sophomore standing.

POSC 4570* Political Terrorism 3 (3) Examination and analysis of the international phenomenon of terrorism in terms of origins, operations, philosophy, and objectives. Preq: Sophomore standing.

POSC 4580* Political Leadership 3 (3) Comparative examination of political leaders, focusing particularly on types, methods, and consequences of leadership and the relationship between leaders and followers. Preq: Sophomore standing.

POSC 4590 Ethnic Violence 3 (3) Examination of both theories and case studies of ethnic violence in today’s world, with emphasis on understanding potential strategies of conflict resolution. Preq: Sophomore standing.

POSC 4600* American Diplomacy and Politics 3 (3) Analyzes the process of making and implementing strategies to protect and promote American national interests. Focuses on the role of government agencies and executive-legislative relations, as well as the participation and influence of interest groups and the media. Includes a five-day seminar in Washington, DC. Preq: Consent of instructor.

POSC 4660 African Politics 3 (3) Comprehensive survey of major regional blocks, as well as analysis of individual states and thematic concepts. Preq: Sophomore standing.

POSC 4710 Russian Politics 3 (3) Comprehensive examination of the Russian Federation since the fall of the Soviet Union. The successes and failures of democratic transition are analyzed, with topics covering political participation, organized crime and corruption, center-periphery conflict, and ethnic/religious unrest. Preq: Sophomore standing.

POSC 4760 Middle East Politics 3 (3) Comprehensive thematic and empirical analysis of the Middle East region. Issues covered include democratization, political and religious freedom, oil, the role of women, and terrorism. States analyzed include Syria, Jordan, Iran, Iraq, Saudi Arabia, Turkey, and the Gulf States. Preq: Sophomore standing.

POSC 4770 Chinese Politics 3 (3) Concepts and operation of contemporary China’s political system; emphasizes institutional innovation and political economy in recent reforms. Preq: Sophomore standing.

POSC 4780 Latin American Politics 3 (3) Survey of prominent trends in Latin American politics, with a focus on major countries in the region and major issues affecting the region. Relations between Latin America and the United States and other prominent countries are also considered. Preq: Sophomore standing.

POSC 4800 Gender and Politics 3 (3) Examination of the role of gender in politics in the United States and in other countries. Particular emphasis on the role of women in electoral politics, issues of gender, women’s rights as human rights, and feministic theory. Preq: Sophomore standing.

POSC 4820 Political Novel and Film 3 (3) Examination of political novels and films. Emphasizes the development of these media as art forms; the relationship between political novels and films and politics at large; and the role of these media in shaping public opinion. Preq: Sophomore standing.

POSC (LANG) 4850* Global Affairs and Governments 3 (3) Designed for teachers and education students who wish to learn how to incorporate global affairs more fully into high school curricula. Overview of major topics involving foreign policies and world politics is provided. May also be offered as LANG 4850.

POSC 4890* Selected Topics 1-3 (1-3) Intensive examination of a selected area of political science. May be repeated for a maximum of six credits, but only if different topics are covered. Preq: Junior standing.

POSC 4900 Senior Honors Thesis Research 3 (3) Reading and research related to the senior honors thesis. Preq: POSC 3960 and Senior standing and membership in Calhoun Honors College.
Parks, Recreation and Tourism Management


PRTM 1010 Concepts of Leisure 3 (3) Introduces recreation professions and organizations: government, voluntary, and commercial; oversees professional preparation; outlines development of man’s uses of leisure and evolution of recreation, city parks, natural resources conservation, and preservation movements as philosophical forces affecting leisure services. Restricted to Parks, Recreation and Tourism Management majors.

PRTM 1950 Professional Golf Management Seminar 111 (1) Covers career planning and professional development training needed in the golf industry with special emphasis on topics covered in the PGA/PGM Level I Training Program. Prereq: PRTM 2810 and consent of instructor.

PRTM 1980 Creative Inquiry—Parks, Recreation and Tourism Management I 14 (1-3) In consultation with and under the direction of a faculty member, students pursue scholarly activities individually or in teams. These creative inquiry projects may be interdisciplinary. Arrangements with mentors must be established prior to registration. May be repeated for a maximum of eight credits. To be taken Pass/No Pass only. Prereq: Consent of faculty member/mentor. Coreq: PRTM 8198.


PRTM 2000 The Profession and Practice in Parks Recreation, and Tourism Management 1 (1) Introduces students to the Parks, Recreation and Tourism Management field. Covers the history and development of the PRTM profession, including professional organizations, current issues and trends, ethical principles and professionalism, and professional competencies and development. To be taken Pass/No Pass only.

PRTM 2050 Program and Event Planning 3 (2) Principles and methods of program development. Time and facility utilization for sports activities, social functions, arts and crafts, outdoor activities, hobbies or special-interest groups, and activities in the cultural and performing arts are pursued. Prereq: PRTM 1010. Coreq: PRTM 2051.

PRTM 2051 Program and Event Planning Laboratory 0 (2) Non-credit laboratory to accompany PRTM 2050. Coreq: PRTM 2050.

PRTM 2060 Practicum I 1 (1) Students conduct a recreation program in a supervised setting. A minimum of 90 hours with a leisure agency approved by the University is required. To be taken Pass/No Pass only. Prereq: PRTM 2270.

PRTM 2070 Practicum II 1 3 (2) Continuation of PRTM 2060. Experience in a leisure situation different from the PRTM 2060 exposure. A minimum of 90 hours with a leisure agency approved by the University is required. To be taken Pass/No Pass only. Prereq: PRTM 2270.

PRTM 2100 Serving Diverse Populations in Parks, Recreation and Tourism Management 3 (3) Introduces students to the leisure patterns and constraints of diverse constituents, including members of ethnic and racial minorities, people of diverse socioeconomic status, women, older adults, people with disabilities, and people with alternative lifestyles. Prereq: PRTM 1010.

PRTM 2110 Impacts of Technology and Science in the Context of Play, Recreation and Tourism 3 (3) Examines the relationship among society, technology, and tourism and recreation. Introduces theories of play, recreation and tourism as they relate to social concerns. Students learn how science and technology have impacted how people play, recreate and travel.

PRTM 2200 Conceptual Foundations of Parks, Recreation and Tourism 3 (3) Introduces students to the background, nature and scope of the profession, including its history, philosophy, and social and behavioral science underpinnings.

PRTM 2210 Delivery Systems for Parks, Recreation and Tourism 2 (2) Introduces students to the various roles, interrelationships, and importance of leisure service delivery systems in designing and operating programs and facilities to serve diverse populations. Also includes discussion of the role and impact of leisure services and community and economic development. Prereq: PRTM 2000.

PRTM 2270 Provision of Leisure Service Experiences 5 (4) Course covers the learning outcomes related to the provision of leisure service experiences required for program accreditation by National Recreation and Parks Association. Topics include program design, facilitation, and evaluation as they relate to the Parks, Recreation and Tourism Management field. Coreq: PRTM 2270 and PRTM 2271.

PRTM 2271 Provision of Leisure Service Experiences Laboratory 0 (2) Non-credit laboratory to accompany PRTM 2270. Coreq: PRTM 2270.