

## BEHAVIORAL SCIENCES MAJOR: CHECKLIST – 2018 AND FOLLOWING

The below courses will be automatically added to your schedule. *Click the hyperlink for a full description of each course:*

Behavioral Science Majors' Core	Semester	Prerequisite
<a href="#">231 Basic Research Methods and Statistical Tools</a>	S 3*	
<a href="#">332 Advanced Research Methods and Statistical Tools</a>	F 2*	Beh Sci 231
<a href="#">497 Senior Capstone Seminar in the Behavioral Sciences</a>	F 1*	
<a href="#">498 Senior Capstone Project in the Behavioral Sciences</a>	S 1*	

S = Spring Semester; F = Fall Semester

**1. Select a concentration(s) if desired (it is not required that you select one). Click the hyperlink for a full description of each concentration:**

- [Clinical/Counseling Psychology](#)
- [Experimental Psychology](#)
- [Leadership](#)
- [Sociocultural](#)
- [Human Factors](#)
- [Health Profession](#) (if selected, pick one track from below)
  - Pre-Med*
  - Pre-Nursing*
  - Dental*
  - Physician Assistant*
  - Physical Therapy*
  - Clinical Psychology*
  - Aerospace Physiology*

**2. Select 9 electives; 6 if Health Profession is selected above. If you selected a concentration(s) from above, select the courses from the concentration(s) description first. Click the hyperlink for a full description of each course:**

Behavioral Science Elective	Semester	Prerequisite
<input type="checkbox"/> <a href="#">330 Abnormal Psychology</a>	F	
<input type="checkbox"/> <a href="#">335 Learning and Cognition</a>	S/F	
<input type="checkbox"/> <a href="#">352 Social Psychology</a>	S	
<input type="checkbox"/> <a href="#">355 Brain and Behavior</a>	F	
<input type="checkbox"/> <a href="#">358 Sociology of Violence and War</a>	F	
<input type="checkbox"/> <a href="#">360 Sociology</a>	S	
<input type="checkbox"/> <a href="#">362 Class, Race, Gender, and Sexuality</a>	F	
<input type="checkbox"/> <a href="#">373 Introduction to Human Factors Engineering</a>	S/F	
<input type="checkbox"/> <a href="#">375 Human Factors in Aviation Systems Engineering</a>	F	
<input type="checkbox"/> <a href="#">380 Theories of Personality</a>	F	
<input type="checkbox"/> <a href="#">390 Sensation and Perception</a>	S	
<input type="checkbox"/> <a href="#">411 Leading Across the Full Range of Leadership</a>	S	Beh Sci 310
<input type="checkbox"/> <a href="#">412 Leading Team and Organizational Change</a>	F	Beh Sci 310
<input type="checkbox"/> <a href="#">440 Lifespan Development</a>	S	
<input type="checkbox"/> <a href="#">471 Engineering Psychology</a>	F	Beh Sci 373
<input type="checkbox"/> <a href="#">473 Human Factors Engineering in Systems Design</a>	S	Beh Sci 471
<input type="checkbox"/> <a href="#">495 Special Topics</a> (contact AIC for availability)	F or S	

S= Spring Semester; F = Fall Semester

3. Minor:
<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Foreign Language *
<input type="checkbox"/> Other

\* must take the Defense Language Aptitude Test in DFF for the minor requirements to be officially fulfilled.

4. MSS Option (select one):
<input type="checkbox"/> <a href="#">MSS 415 (Jt Ops Strat Regional)</a>
<input type="checkbox"/> <a href="#">MSS 416 (Jt Ops Strat &amp; Tech)</a>

5. Systems Option (select one):
<input type="checkbox"/> <a href="#">Geo 310 (Geo Info Analysis)</a>
<input type="checkbox"/> <a href="#">Meteor 320 (Intro to Meteor Aviation)</a>
<input type="checkbox"/> <a href="#">Ops Rsrch 310 (Sys Analysis)</a>

6. Academy Option (any 3-hr credit course):

## BEHAVIORAL SCIENCES MAJOR: CONCENTRATIONS – 2018 AND FOLLOWING

**Clinical/Counseling Psychology Concentration:** The clinical/counseling concentration integrates scientific principles of the biological, psychological and sociocultural theories of human behavior to better understand and explain healthy functioning and development while also exploring the processes and strategies for alleviating dysfunction or distress. The course work for this concentration focuses on the cognitive, biological, psychological, social and behavioral aspects of human functioning across the life span. The concentration is well suited for leaders wanting to better understand how to assist subordinates with the stresses and challenges of life in the Air Force or for students wanting to pursue graduate study in clinical or counseling psychology or social work. [RETURN TO TOP](#)

Beh Sci 330 Abnormal Psychology  
Beh Sci 335 Learning and Cognition  
Beh Sci 352 Social Psychology  
Beh Sci 355 Brain and Behavior  
Beh Sci 360 Sociology  
Beh Sci 362 Class, Race, Gender, and Sexuality  
Beh Sci 380 Theories of Personality  
Beh Sci 411 Leading Across the Full Range of Leadership  
Beh Sci 440 Lifespan Development

**Experimental Psychology Concentration:** This concentration explores the breadth of the scientific roots of our discipline. Coursework emphasizes the rigorous implementation of the scientific method, especially those perspectives that are foundational to the laboratory study of psychology (e.g., sensation and perception, learning and cognition, and brain and behavior). These topics are the conceptual groundwork for most fields in psychology such as clinical/counseling psychology, social psychology/leadership studies, and human factors. This concentration is an excellent choice for students wanting to learn more about many core topics introduced in Beh Sci 110 and as preparation for students seeking a graduate degree in most psychology disciplines. [RETURN TO TOP](#)

Beh Sci 335 Learning and Cognition  
Beh Sci 355 Brain and Behavior  
Beh Sci 390 Sensation and Perception

**Leadership Concentration:** The leadership concentration involves the scientific study of leadership in an organizational context focusing on the integration of theory and practice. The course work challenges students to expand the ways in which they understand and address complex issues and problems. Multiple leadership frameworks are engaged both academically and experientially as students explore how to lead teams and organizations effectively. This concentration will prepare cadets to use a range of perspectives and theoretical constructs to analyze, critique, and make decisions about an array of leadership and organizational issues and problems. Cadets can apply the knowledge gained in this concentration to their experience as cadet leaders in the Cadet Wing. This concentration has direct relevance for a career as Air Force officers and as preparation for graduate study in Industrial/Organizational (i.e., Workplace) Psychology. The underlying basis of this concentration is that it has direct and immediate relevance to the lives of our graduates during their careers as Air Force officers and beyond. [RETURN TO TOP](#)

Beh Sci 335 Learning and Cognition  
Beh Sci 352 Social Psychology  
Beh Sci 360 Sociology  
Beh Sci 362 Class, Race, Gender, and Sexuality  
Beh Sci 380 Theories of Personality  
Beh Sci 411 Leading Across the Full Range of Leadership  
Beh Sci 412 Leading Team and Organizational Change

## BEHAVIORAL SCIENCES MAJOR: CONCENTRATIONS – 2018 AND FOLLOWING

**Sociocultural Concentration:** The sociocultural concentration is the study of social life, social change, and the social causes and consequences of human behavior. Given the complexities and intricacies of societies and the fact that all human behavior is social, the subject matter of sociology ranges from the intimate family to the hostile mob; from organized crime to religious traditions; from the divisions of race, gender, and social class to the shared beliefs of the common culture. This concentration develops cross-cultural competence and the ability to understand and analyze the cultures, beliefs, values, and institutions of foreign societies; it also prepares cadets to lead by deepening their understanding of Airmen and American society. This concentration is well-suited for cadets interested in Influence and Information Operations and as preparation for graduate work in sociology.

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Beh Sci 352 Social Psychology  
Beh Sci 358 Sociology of Violence and War  
Beh Sci 360 Sociology  
Beh Sci 362 Class, Race, Gender, and Sexuality  
Beh Sci 412 Leading Teams and Organizational Change  
Beh Sci 440 Lifespan Development

**Human Factors Concentration:** Human factors is a scientific discipline that is concerned with understanding how humans interact with their environment or a system. The focus is on answering real-world research questions to support the Warfighter. This is accomplished by understanding human capabilities and limitations and using that knowledge to increase safety, satisfaction, and reduce human error. The coursework focuses on human capabilities and limitations in a variety of disciplines including sensation and perception, cognition and decision making, individual differences, communication, physiology, neurophysiology, and ergonomics. This concentration is well-suited for cadets entering aviation and space related career fields and as preparation for graduate study in human factors or ergonomics. *NOTE: This concentration is not an accredited engineering degree; cadets interested in graduating with an HF-related accredited engineering degree should consider a Systems Engineering degree with an HF emphasis.* [RETURN TO TOP](#)

Beh Sci 373 Introduction to Human Factors Engineering  
Beh Sci 375 Human Factors in Aviation Systems Engineering  
Beh Sci 471 Engineering Psychology  
Beh Sci 412 Leading Team and Organizational Change  
Beh Sci 473 Human Factors Engineering in Systems Design  
Sys Engr 470 Human Systems Integration

**Health Profession Concentrations:** The following health profession concentrations are available for Behavioral Science majors:

- Pre-Med
- Pre-Nursing
- Dental
- Physician Assistant
- Physical Therapy
- Clinical Psychology
- Aerospace Physiology

DFBL will count three health profession courses toward Behavioral Sciences Electives. Biology 210 is a preferred core substitute for the pre-med/nursing, dental, physician assistant, and physical therapy concentrations. Cadets looking to pursue these concentrations should contact DFBL's Advisor in Charge for concentration requirement information. Cadets interested in any health profession concentration will coordinate with a Health Professions Advising Center (HPAC) advisor located within the Departments of Chemistry and Biology for additional registration information. [RETURN TO TOP](#)

## BEHAVIORAL SCIENCES MAJOR: COURSES – 2018 AND FOLLOWING

**Beh Sci 231. Basic Research Methods and Statistical Tools.** 3(1). This course is the first in a two-course sequence that includes Beh Sci 332. Within this sequence, students are introduced to and then apply an integrated approach to empirical research, statistics, and ethics through study of the scientific method, hypothesis testing, and research design. Students will study and compute probability and descriptive statistics for normal and non-normal distributions on differing levels of measurement. Students will use statistical software to perform descriptive and inferential statistical analyses including, but not limited to, measures of central tendency and variability, normality, ANOVA, t-tests, Chi-square, correlation, and the principles of regression; with an emphasis on knowing when to use each method. Students will apply methodological and statistical knowledge in a behavioral science research study they design; culminating in an APA formatted research report (e.g. papers and/or posters). Final exam and/or final project or paper. Prereq: Beh Sci 110. Sem hrs: 3 spring. [RETURN TO TOP](#)

**Beh Sci 330. Abnormal Psychology.** 3(1). This course examines the development, nature, and treatment of psychological disorders within a biopsychosocial context. Special consideration is given toward leadership and military applications. Final exam or final project. Prereq: Beh Sci 110. Sem hrs: 3 fall. [RETURN TO TOP](#)

**Beh Sci 332. Advanced Research Methods and Statistical Tools.** 3(1). Continuation of Beh Sci 231 (please see Beh Sci 231 course description.) Final exam and/or final project or paper. Prereq: Math 142/152, Beh Sci 110 and Beh Sci 231, or departmental approval. Sem hrs: 3 fall. [RETURN TO TOP](#)

**Beh Sci 335. Learning and Cognition.** 3(2). How does experience affect behavior? This age old question has been examined both in theory and in practice by behavioral psychologists since the early 1900's. With the cognitive revolution in the late 1950s, a keen interest turned to experimentally studying mental activity. In this course, cadets will examine theories from both domains to better understand human behavior and mental activity. Cadets will test concepts from learning and cognition in the laboratory using rats and report their experimental findings. Lab. Final exam or final project. Prereq: Beh Sci 110. Sem hrs: 3 fall or spring. [RETURN TO TOP](#)

**Beh Sci 352. Social Psychology.** 3(1). This course provides an introduction to social psychology and Behavioral Sciences. Social psychologists seek to understand the nature and causes of individual behavior in social situations. In other words, social psychology explains how the average person reacts to various social pressures. Topics covered include social perception, attitudes, prejudice and discrimination, interpersonal attraction, social influence, prosocial behavior, aggression, groups and personality. From a practical standpoint, this course explains how and why people react to the world and other people as they do. Leadership implications are discussed. Final exam or final project. Prereq: Beh Sci 110. Sem hrs: 3 spring. [RETURN TO TOP](#)

**Beh Sci 355. Brain and Behavior.** 3(1). Using the interdisciplinary lens of neuroscience, cadets will learn how the brain and nervous system generate behavior and mental activity. Learning experiences will focus on how the wiring and structure of the brain are responsible for the way we behave. We will examine how real life issues such as traumatic brain injury, learning, memory, decision-making, sleep, emotions, psychological disorders, drug effects, and stress are best explained by understanding how the brain processes and computes different kinds of information. Cadets will develop a three-dimensional understanding of neuroanatomy through extensive sheep brain dissections. Final exam or final project. Prereq: Beh Sci 110. Sem hrs: 3 fall. [RETURN TO TOP](#)

**Beh Sci 358. Sociology of Violence and War.** 3(1). This course provides concepts, perspectives, and evidence for thinking about and making sense of violence and war from sociological and criminological perspectives. The course examines the forms violence and warfare take in human societies, such as incidences of assault, homicide, riots, and genocide. The course also emphasizes the contextual environment surrounding combat, the people involved in combat and the support of armed conflict, and the relationships between them. Finally, the course considers how individuals and societies respond to violence and warfare, with attention to policing systems and militaries, and how they are related to the cultures in which they are located. In addition, the course addresses terrorism and conflicts such as those in Afghanistan and Iraq. Exact topics covered may vary in any one semester. Final exam or final project/paper. Prereq: Beh Sci 110. Sem hrs: 3 fall. [RETURN TO TOP](#)

## BEHAVIORAL SCIENCES MAJOR: COURSES – 2018 AND FOLLOWING

**Beh Sci 360. Sociology.** 3(1). Introduces sociology's foundational perspectives and methodologies and applies them to the systematic study of human behavior in social contexts. Basic topics include the "sociological imagination," biology and social behavior, the origins and components of culture, socialization, the structure of social interaction, and the creation and maintenance of groups, organizations, and societies. Additional themes include social stratification, race/ethnicity, gender and sexuality, globalization and development, marriage and family, religion, and social change. Final exam or final project. Prereq: None. Sem hrs: 3 spring. [RETURN TO TOP](#)

**Beh Sci 362. Class, Race, Gender, and Sexuality.** 3(1). Class, race, gender, and sexuality are axes of stratification, identity, and experience. They often are taken for granted or go unrecognized. In this course we will address the multiple and intersecting ways these concepts shape society, individual life-chances, and daily social interactions. We will take a detailed look at each of the core concepts: class, race/ethnicity, gender, and sexuality. Studying the "socially-constructed" nature of these concepts, we ask what meaning and values have been attached to them by social actors and we inquire into the ways the social constructions help to rationalize and justify social inequality. We also analyze the significance of class, race, gender, and sexuality in a variety of institutional and interpersonal contexts, including elementary schools, communities, housing, the criminal justice system, the family, and higher education. Final exam or final project/ paper. Prereq: Beh Sci 110. Sem hrs: 3 fall. [RETURN TO TOP](#)

**Beh Sci 373. Introduction to Human Factors Engineering.** 3(1). This course examines the process, principles, and guidelines of human factors engineering as they impact the design of systems used by people and provides an introduction to human factors engineering and Systems Design. Emphasizes the interaction between human capabilities and limitations, to the task, and the environment, as they relate to system performance. Final exam or final project. Prereq: Beh Sci 110. Sem hrs: 3 fall or spring. [RETURN TO TOP](#)

**Beh Sci 375. Human Factors in Aviation Systems Engineering.** 3(1). This course examines human performance and human-machine design issues in military and civilian aviation systems. Students learn about human factors engineering in aviation systems and their failures as well as reviewing the nature and scope of human factors impacts on performance by air and ground crews and their supervisors. Students review the body of knowledge demonstrating how human flight-related performance is based on psychological and physiological capabilities and limitations that, in turn, influence the ability of humans to interact within the systems design constraints. Students also learn how the application of effective systems design, specialized automation, and ongoing training can facilitate optimal human-system performance associated with flight. Final exam or final project. Prereq: None. Sem hrs: 3 fall. [RETURN TO TOP](#)

**Beh Sci 380. Theories of Personality.** 3(1). Examines major psychological theories of personality, including analytic, humanistic, cognitive, and learning approaches. Other non-traditional approaches are also considered which explain personality development from the socio-cultural perspective. Theoretical concepts are examined to understand individual personality development, relevant current and historical issues, and applications to military leadership. Final exam or final project. Prereq: Beh Sci 110. Sem hrs: 3 fall. [RETURN TO TOP](#)

**Beh Sci 390. Sensation and Perception.** 3(1). This course will provide an introduction to the way the outside world is perceived through our senses and how our brain makes sense of all the sensory inputs. How our body experiences the world and what we perceive of the world are two interrelated, but different entities. This is an important topic for Air Force officers, because our perceptions do not always accurately represent the outside world. For example, pilots with inaccurate perceptions of their aircraft attitude (e.g., spatial disorientation) could lead to loss of control of their aircraft. Through lectures, labs, demonstrations and discussions, this course will introduce the basic anatomy of the sensory systems, as well as, how these structures are used to "make sense" out of what we are experiencing so that we can do such things as understand speech, perceive color, see motion and depth, and recognize faces. Final exam or final project. Prereq: Beh Sci 110. Sem hrs: 3 spring. [RETURN TO TOP](#)

## BEHAVIORAL SCIENCES MAJOR: COURSES – 2018 AND FOLLOWING

**Beh Sci 411. Leading Across the Full Range of Leadership.** 3(1). This course takes an in depth look at the concept of transformational leadership through examination of the Full Range Model of Leadership. Cadets will examine both effective and ineffective leadership processes in order to understand how leadership manifests itself in different situations and the resultant effects on followers. Case studies/current events, facilitated and cadet-led round-table discussion projects, and experiential exercises will allow the cadet to gain an in-depth understanding of leadership and its application across a variety of situations and contexts. Final exam, final project, or final paper. Prereq: Beh Sci 310. Sem Hrs: 3 spring. [RETURN TO TOP](#)

**Beh Sci 412. Leading Team and Organizational Change.** 3(1). In this course, cadets will examine the perspectives, processes and guidelines relevant to leading change at the team and organizational levels. Specifically, cadets will explore topics in industrial psychology from the perspective of a company grade officer to learn how to select, train, motivate, and assess their airmen to build an effective team. Cadets will also explore topics in organizational psychology from the perspective of a field grade officer to understand the complexity of modern organizations and learn how to effectively lead an organizational change effort. In-class exercises, guest speakers, and group projects will be used to help cadets comprehend course concepts in the context of life at USAFA, so they may understand how to apply this knowledge to leading in the Air Force. Final exam, final project or final paper. Prereq: Beh Sci 310. Sem hrs: 3 fall. [RETURN TO TOP](#)

**Beh Sci 440. Lifespan Development.** 3(1). This course examines how people develop physically, psychologically, socially, and cognitively from birth to death. It explores changes that are universal and changes that are unique to specific individuals. Developmental theories explaining these changes are presented. The course also focuses on the social context of development: "What is the impact of income, education, ethnicity, race, sex, culture, and historical time period on developmental outcomes?" Final exam or final project. Prereq: Beh Sci 110. Sem hrs: 3 spring. [RETURN TO TOP](#)

**Beh Sci 471. Engineering Psychology.** 3(1). This advanced course examines cognitive and human performance theories and their applications to human-machine integration in systems design. Special attention is given to the way humans perceive, understand, and respond to information. Application of course content will include the development of an experimental setting to test an applied research question. Final exam or final project. Prereq: Beh Sci 373. Sem hrs: 3 fall. [RETURN TO TOP](#)

**Beh Sci 473. Human Factors Engineering in Systems Design.** 3(2). This advanced course emphasizes the role and responsibilities of the human factors engineer in the design and evaluation of systems. The course uses a combination of group, individual, and in-class design projects to explore the system design process. Particular attention is given to human characteristics and their effects on system performance. Final exam or final project. Prereq: Beh Sci 471. Sem hrs: 3 spring. [RETURN TO TOP](#)

**Beh Sci 495. Special Topics.** 1-3(1). Selected topics in the Behavioral Sciences. Final exam or final paper. Prereq: Department approval. Sem hrs and offering time determined by DFBL (not more than 3 sem hrs). [RETURN TO TOP](#)

**Beh Sci 497. Senior Capstone Seminar in the Behavioral Sciences.** 3(1). An intensive seminar covering the application of the behavioral sciences to modern military conflict. The seminar will primarily focus on how current and historical behavioral sciences theory and research inform and prepare warfighters in the conduct of modern Air Force combat operations including pre- and post-deployment issues. In addition, students will be introduced to their senior capstone project, will form their project teams, and will begin their literature reviews and research protocol development in preparation for completing their capstone project in the spring in Beh Sci 498. Final paper and/or oral presentation. Prereq: Beh Sci 231 and Beh Sci 332, C1C standing, and Behavioral Sciences major or department head approval. Sem hrs: 3 fall. [RETURN TO TOP](#)

## BEHAVIORAL SCIENCES MAJOR: COURSES – 2018 AND FOLLOWING

**Beh Sci 498. Senior Capstone Project in the Behavioral Sciences.** 3(1). This course culminates the Behavioral Sciences curriculum, integrating previous coursework to contribute knowledge to either an applied or research based capstone project. Under the guidance of capstone instructors and department faculty, students will complete a senior project. In addition, students will participate in periodic seminars and discussion groups on current topics in the behavioral sciences. Final project and/or oral presentation. Prereq: Beh Sci 497, C1C standing, and Behavioral Sciences major or department head approval. Sem hrs: 3 spring. [RETURN TO TOP](#)

**Beh Sci 499. Independent Study.** 3(0). Research or practicum in a specific area of behavioral science. Conducted on a tutorial basis. Final paper. Prereq: Department approval. Sem hrs: 3 fall or spring.

- Beh Sci 499A. Independent Study. 2(0). Sem hrs: 2 fall or spring.
- Beh Sci 499B. Independent Study. 1.5(0). Sem hrs: 1.5 fall or spring.
- Beh Sci 499C. Independent Study. 1(0). Sem hrs: 1 fall or spring

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## **MSS COURSES:**

**MSS 415. Joint Operations Strategy in Regional Contexts.** 3(1). This seminar course focuses on strategic military assumptions, processes, and interactions across and within U.S. military operational domains. Within the context of contemporary and emerging strategic technologies and service attitudes toward technology and its operational effects, cadets evaluate current and emerging operational environments, developing requisite knowledge, analytical, and decisionmaking skills. Cadets apply the capabilities of U.S. military services across domains, illustrating strategy, doctrine, technology, and service culture within diverse threat contexts. The course integrates special operations and coalition forces and includes joint/coalition/interagency operational simulations. Emphasis is on teamwork. Final exam and/or final paper. Prereq: MSS 200. Sem hrs: 3 fall or spring. [RETURN TO TOP](#)

**MSS 416. Joint Operations Strategy and Technology.** 3(1). This seminar course focuses on strategic military assumptions, processes, and interactions across and within regions of interest to the United States military. Cadets evaluate current and emerging operational environments in Combatant Command Areas of Responsibility, developing requisite knowledge, analytical, and decision-making skills. Cadets apply the capabilities of all U.S. military services across domains, illustrating strategy, doctrine, technology, and service culture within diverse threat contexts. The course integrates special operations and coalition forces and includes joint/coalition/interagency operational simulations. Emphasis is on teamwork. Final exam and/or final paper. Prereq: MSS 200. Sem hrs: 3 fall or spring. [RETURN TO TOP](#)

## **SYSTEM OPTIONS COURSES:**

**Geo 310. Geospatial Information Analysis.** 3(1). This course prepares cadets with the basic tools necessary to make decisions with geographic (geospatial) information. The course introduces data sources and collection techniques (e.g. use of remote sensing and GPS). Cadets will learn methods to transform data into geospatial intelligence appropriate for decision making. Military and civilian applications of Geographic Information Systems (GIS) technology are examined in case studies, and cadets will complete projects to demonstrate the ability to solve an ill-defined spatial problem and make recommendations to a decision maker. Final exam or final project. Prereq: Physics 215. Sem hrs: 3 fall or spring. [RETURN TO TOP](#)

**Meteor 320. Introduction to Meteorology and Aviation Weather.** 3(1). A survey course in the fundamentals of meteorology. Emphasis will be placed on flight weather and its impact on aviation. Topics include atmospheric thermodynamics, cloud physics, air masses and weather systems, weather forecasting, severe weather, hazards to aviation, introduction to weather satellites and radar, and an introduction to the near-earth space environment. Administered by the Department of Physics. Final exam. Prereq: Physics 110. Sem hrs: 3 fall or spring. [RETURN TO TOP](#)

**Ops Rsch 310. Systems Analysis.** 3(1). This course provides an introduction to quantitative modeling methods that have broad application. The course focuses on computer implementation of the models, and the application of these models to practical decision-making scenarios. By demonstrating the application of these techniques to problems in a wide range of disciplines, the course is relevant to technical and non-technical majors at USAFA. The course covers OR tools, such as optimization, queuing, simulation, and decision analysis. Administered by the Department of Management. Instruction provided by inter-departmental Operations Research faculty. Final exam. Prereq: Comp Sci 110, Math 142. Sem hrs: 3 fall or spring. [RETURN TO TOP](#)