Department of Systems Engineering
United States Military Academy
West Point, New York

Department of Systems Engineering
Course Catalog
28 Courses

Subject to change; Current as of July 2023

COURSE	TITLE	CREDIT HOURS
EM381 2017-1	ENGINEERING ECONOMY	3.0 (BS=0.0, ET=3.0, MA=0.0)

Scope	Offerings
SCOPE This course prepares cadets to consider the economic dimension in the evaluation of engineering alternatives; a consideration vital to the Systems Decision Process, engineering management, systems acquisition and many other application areas. While emphasis is on the analytical consideration of money and its impact on the areas above, the course also incorporates professional ethics in the engineering economic analysis process. The course is taught in four lesson blocks. The Time Value of Money (TVM) block -includes the quantitative methods for economic analysis of engineering alternatives by introducing cost concepts, interest concepts, the cash flow diagram and developing interest formulas. The Analysis Methods block develops techniques for project evaluation and comparison and ways to account for risk and uncertainty. The After Tax Cash Flow block incorporates the real-world effect of taxes, depreciation and inflation into the analysis methods. The Capital Budgeting block completes a comprehensive introduction to engineering economy by introducing the concept of economic service life and project financing. A one lesson introduction to personal finance is included to demonstrate how many of the concepts used in the business world can also be applied for personal planning. Course concepts are applied using Excel in both graded and ungraded labs. Cadets will spend several lessons in a computer lab environment.	2024 1 2024 2 2025 1 2025 2 2026 1 2026 2 2026 3 2027 1 2027 2

COURSE	TITLE	CREDIT HOURS
EM384 2020-2	ANYL METH FOR ENGR MANAGEMENT	3.0 (BS=0.0, ET=3.0, MA=0.0)

Scope	Offerings
SCOPE EM384 focuses on the application of deterministic and probabilistic models used by analysts to make engineering and management decisions. Cadets learn to apply various modeling techniques to represent and solve real-world organizational problems in the military and industry. Topics include: linear and integer programming, network modeling, decision making under uncertainty, and simulation modeling. Cadets apply concepts and tools using Microsoft Excel in a variety of computing environments. The techniques taught in this course have been applied to an increasingly wide variety of complex problems in business, government, military, health care, and education. Ethical responsibilities in describing the results of analyses to decision makers are integrated throughout the course. Cadets make innovative use of spreadsheets to	2023 8 2024 1 2024 2 2024 8 2025 1 2025 2 2025 3 2025 4

develop and analyze models. Cadets are tested on the application of course concepts from the five blocks of instruction during four graded labs, four problem sets, and a comprehensive term-end exam.

2025 8
2026 1
2026 2
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2027 1
2027 2
2027 3
2027 8

COURSE	TITLE	CREDIT HOURS
EM402 2019-1	ENGINEERING MANAGEMENT DSN I	4.0 (BS=0.0, ET=4.0, MA=0.0)

Scope	Offerings
SCOPE This is the first course in a two-semester capstone design for EM majors. EM402 integrates the principles, concepts and models explored in previous core and engineering topic courses. The course applies the principles of systems design, engineering management, and/or reengineering to a real-world system. Cadets work under the supervision of a faculty mentor to address a problem presented by a real-world client, providing them an integrative experience for their education in engineering design.	2024 1 2025 1 2026 1 2027 1

COURSE	TITLE	CREDIT HOURS
EM403 2019-2	ENGINEERING MANAGEMENT DSN II	4.0 (BS=0.0, ET=4.0, MA=0.0)

Scope	Offerings
SCOPE Engineering Management Design II is the second course in a two-semester capstone experience for EM majors. EM403 integrates the principles, concepts and models explored in previous core and engineering courses. The course applies the principles of systems design, engineering management, and/or reengineering to a real-world system. Cadets work under the supervision of a faculty mentor to continue work on the same project begun in EM402, culminating the integrative experience in their education.	2024 2 2025 2 2026 2 2027 2

COURSE	TITLE	CREDIT HOURS
EM411 2019-2	PROJECT MANAGEMENT	3.5 (BS=0.0, ET=3.5, MA=0.0)

Scope	Offerings
SCOPE This course develops skills required to lead an organization to the achievement of their objectives through the proper application of the management of planning, implementing and controlling the organization activities, personnel and resources. The course focuses on the Implementation phase of the Systems Decision Process (SDP). Topics include project selection, roles and responsibilities of the project manager,	2023 8 2023 9 2024 1

planning the project, budgeting the project, scheduling the project, allocating resources to the project, monitoring and controlling the project, evaluating and terminating the project, risk assessment and management, organizational structure and human resources. Case studies illustrate problems and how to solve them. Course assignments are designed to help students learn and apply project management techniques taught in the course. The class design project will provide students with the opportunity to integrate project management software, Microsoft Project, into the preparation of an Engineering Management Project Plan.	2024 2 2024 8 2024 9 2025 1 2025 2 2025 3 2025 4 2025 8 2026 1 2026 2 2026 8 2027 1 2027 2 2027 8 2027 9

COURSE	TITLE	CREDIT HOURS
EM420 2020-1	PRODUCTION OPERATIONS MGMT	3.0 (BS=0.0, ET=3.0, MA=0.0)

Scope	Offerings
SCOPE This course deals with the quantitative aspects of design and analysis of production operations management. Emphasis is on identification, analysis, and solution of production problems using applied quantitative techniques. Practical exercises reinforce the problem-solving techniques necessary for today's successful military and civilian engineering managers and systems engineers. Specific methods and techniques taught and applied are operations strategy, product design and selection, total quality management, capacity planning, facility location, facility layout, work system design, lean systems and scheduling. This course is required for those pursuing the Engineering Management major and an elective for the Systems Engineering, Systems and Decision Sciences, Management and other engineering majors.	2024 1 2025 1 2026 1 2027 1

COURSE	TITLE	CREDIT HOURS
EM481 2020-2	SYSTEMS SIMULATION	3.5 (BS=0.0, ET=3.5, MA=0.0)

Scope	Offerings
SCOPE Cadets learn and explore discrete event simulation techniques and tools used to analyze and improve complex systems. Applications include operations, transportation, manufacturing and logistics systems. Topics include functional modeling with functional flow diagrams, simulation theory, the modeling process, input data analysis, generation of random numbers, verification and validation of simulation models, experimental design, output analysis, and application using simulation software. The course concepts provide cadets the tools to evaluate military and civilian systems. Emphasis is placed on using simulation in the Systems Decision Process (SDP). Cadets	2023 8 2024 1 2024 2 2025 1 2025 2 2026 1 2026 2

demonstrate proficiency and develop communication skills through design projects and briefings. Cadets spend several lessons in a computer lab environment.	2027 1 2027 2 2027 8

COURSE	TITLE	CREDIT HOURS
EM482 2020-2	SUPPLY CHAIN ENG & INFO MGMT	3.0 (BS=0.0, ET=3.0, MA=0.0)

Scope	Offerings
SCOPE This course teaches cadets the strategic importance of supply chain design, planning, operation, business processes, and information management systems. Cadets will become familiar with engineering a supply chain network---from conducting inventory management to establishing proper sourcing and transportation strategies to understanding capacity and facility locations to constructing the proper information technology framework needed to be successful. Cadets will develop the ability to evaluate how information flows can be a substitute for the stock of physical resources. Additionally, cadets will understand why such information systems succeed or fail through the explanation of concepts, insights, practical tools and the information technology that supports decision making. This course will focus on understanding the key drivers of a supply chain such as inventory, facilities, transportation, sourcing, pricing, and information. Cadets will also learn to assess the impact of strategic alliances and globalization on supply chain strategies and best practices, to include smart pricing, customer value, and new product and supply chain design.	2024 2 2025 2 2026 2 2027 2

COURSE	TITLE	CREDIT HOURS
SE301 2020-2	FNDTN ENGIN DSGN & SYS MGMT	3.0 (BS=0.0, ET=3.0, MA=0.0)

Scope	Offerings
SCOPE SE301 serves as the "roadmap" course for all cadets taking the Engineering Management, Systems Engineering, or Systems & Decision Sciences majors as well as all cadets enrolled in the Core Engineering Sequence. This course presents the methodological framework and techniques for designing, implementing, managing and reengineering complex systems or processes. Cadets learn engineering design and engineering management processes and gain an appreciation for future environments and system life-cycles. Cadets analyze case studies and complete practice problems to illustrate mastery of course topics. Cadets also use spreadsheet software for modeling and analyzing design alternatives. SE301 introduces a Systems Decision Process while incorporating material from courses in the USMA core curriculum and also previews the modeling and decision making tools that cadets will learn in follow-on Department of Systems Engineering courses. The course is designed to allow Cadets the opportunity to learn engineering design and engineering management processes on an individual level so that each Cadet will have the experience necessary to succeed in future Systems Engineering courses. Cadets will spend a number of lessons in a computer lab environment.	2023 5 2023 7 2023 8 2024 1 2024 2 2024 8 2025 1 2025 2 2025 3 2025 8 2026 1 2026 2 2026 5 2026 8 2027 1 2027 2

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2027 7
2027 8

COURSE	TITLE	CREDIT HOURS
SE302 2020-2	FUNDAMENTALS OF SYSTEMS ENG	3.0 (BS=0.0, ET=3.0, MA=0.0)

Scope	Offerings
SCOPE SE302 prepares students to effectively model, analyze, and understand complex, interdisciplinary, and ill-defined problems as systems so they can design and implement effective solutions. The course covers principles and methods for requirements management, functional and nonfunctional analysis, risk management, testing, cost estimation, and technical system architecture from industry and DoD including IDEFϕ modeling, the Systems Modeling Language (SysML), and the Department of Defense Architectural Framework (DoDAF). The Engineering Vee model is used as a framework throughout the course. The course also includes a review of Model-Based Systems Engineering (MBSE) methodologies. The techniques taught in this course have been applied to an increasingly wide variety of complex, ill-defined problems in business, government, military, health care, and national capacity development. Ethical responsibilities in describing the results of analyses to decision makers are integrated throughout the course. Cadets develop communication skills through written reports and presentations. A course project will challenge cadets to apply their modeling and analysis skills to a real world complex, ill-defined problem in political, military, economic, social, cultural, and informational contexts.	2024 1 2025 1 2026 1 2027 1

COURSE	TITLE	CREDIT HOURS
SE370 2020-2	COMPUTER AIDED SYSTEMS ENG	3.0 (BS=0.0, ET=3.0, MA=0.0)

Scope	Offerings
SCOPE Cadets learn how to use information and technology in support of systems decision-making. They learn how to manipulate data in spreadsheets as well as through a computer language (R) to support decisions. The course introduces cadets to several types of exploratory data analysis to include numeric, text, relational, and geospatial. Cadets learn how to manage analysis in both the traditional and cloud environments, as well as the tradeoffs associated with working in each. Communication skills are developed through both written and oral projects and development of interactive graphical presentations. Cadets will spend most lessons in a computer lab environment.	2023 9 2024 2 2024 8 2024 9 2025 2 2025 8 2026 1 2026 2 2026 8 2027 2 2027 9

COURSE	TITLE	CREDIT HOURS

COURSE	TITLE	CREDIT HOURS
SE375 2014-1	STATISTICS FOR ENGINEERS	3.0 (BS=0.0, ET=2.0, MA=1.0)

Scope	Offerings
SCOPE This course is an integral part of the Systems Engineering major that emphasizes both the statistical analyses of data and a statistical methodology important to systems analysis and design. The over-arching course goal is to develop cadets into critical consumers and providers of statistical information as it relates to the techniques, activities, and modeling applications that typify systems engineering concerns.. The course builds on the core probability and statistics course and introduces statistics applications fundamental to the design and analysis of simulations and engineering systems. Specific topics include point and interval estimation, parametric and non-parametric tests of hypotheses, analysis of variance, linear regression, and survey design of experiments, specifically analysis of power and determination of sample size. The course emphasizes the importance of knowing and understanding the assumptions associated with the use of inferential statistics as well as the usefulness of statistical software packages. The basic principles learned in this course will facilitate data analysis in support of Army acquisition and system redesign decision-making. Ethical implications in the analysis and presentation of experimental results, as well as interactions with decision makers, are addressed.	2023 8 2024 1 2024 2 2024 8 2025 1 2025 2 2026 1 2026 2 2027 1 2027 2 2027 8

COURSE	TITLE	CREDIT HOURS
SE385 2020-2	DECISION ANALYSIS	3.0 (BS=0.0, ET=3.0, MA=0.0)

Scope	Offerings
SCOPE The course presents basic techniques of decision-making concentrating on both theoretical and modeling aspects. This course develops innovative systems engineers who can integrate the art and science of decision making for single and multiple objective environments to support the Decision Making phase of the Systems Decision Process (SDP). The focus of the course is modeling problem structure, uncertainty, risk and preference in the context of decision-making. Topics include mathematical foundations and axioms of decision analysis, influence diagrams, decision trees, simulation, sensitivity analysis, subjective probability assessments, value of information, classification of risk attitude given uncertainty. Cadets will also use value focused thinking to support decisions in multiple objective and resource allocation environments. A series of several computer laboratory exercises provides a key bridge between the mathematical theory and the application of skills to open-ended decision problems. Communication skills are developed with both written reports and oral presentations.	2023 8 2024 2 2025 2 2026 2 2027 2 2027 8

COURSE	TITLE	CREDIT HOURS
SE387 2020-2	DETERMINISTIC MODELS	3.0 (BS=0.0, ET=2.5, MA=0.5)

Scope	Offerings
SCOPE This course is the first of a two-course sequence that emphasizes modeling and analysis of real-world systems. This course focuses on techniques without consideration of uncertainty or probabilistic effects. The course introduces modeling concepts, scale	2023 8 2024 1

and measurement principles, mathematical analysis methods, and computational approaches used by systems engineers, operations researchers, and management professionals to support systems design and the Systems Decision Process (SDP). Emphasis is placed on creative application of these topics including system representations, problem formulation, solution methods, analysis of results, and interpretation. Topics include axiomatic design, modularity, value function creation, linear programming, sensitivity analysis, networks, transportation models, and human-systems integration assessment. Cadets will spend several lessons in a computer lab environment.

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COURSE	TITLE	CREDIT HOURS
SE388 2020-2	STOCHASTIC MODELS	3.0 (BS=0.0, ET=2.5, MA=0.5)

Scope	Offerings
SCOPE This course is the second of a two-course sequence that emphasizes modeling and analysis of real-world systems. Building on the systems modeling approaches introduced in SE387, this course introduces uncertainty into design, modeling, parameter estimations, and data as they effect many of the classical stochastic models used by systems engineers, operations researchers and management professionals to capture and describe quantitative effects of uncertainty on systems design and analysis, and on decision-making as part of the Systems Decision Process (SDP). Topics include stochastic value modeling, flaw of averages, reliability, realization analysis, Bayesian updating, conditional probability models, and simulation. This course prepares cadets for the quantitative reasoning and analysis techniques required in follow-on courses, including SE481, EM484, SE485 and SE402/403. Cadets will spend several lessons in a computer lab environment.	2024 2 2025 2 2026 2 2027 2

COURSE	TITLE	CREDIT HOURS
SE400 2020-2	PROFESSIONAL ENGINEERING SEMIN	1.0 (BS=0.0, ET=1.0, MA=0.0)

Scope	Offerings
SCOPE This seminar course for SE and EM majors meets to discuss important aspects of the engineering profession to include engineering ethics, licensing procedures, and professional development plans. The seminar also includes presentations by guest lecturers from the military, DoD industrial base, and academic communities. Further, this seminar helps prepare Cadets for the Fundamentals of Engineering Exam.	2024 2 2025 2 2026 2 2027 2

COURSE	TITLE	CREDIT HOURS
SE402 2020-1	SYSTEMS DESIGN & MANAGEMENT I	4.0 (BS=0.0, ET=4.0, MA=0.0)

Scope	Offerings
SCOPE Systems Design and Management I is the first course in a two-semester capstone experience for Systems Engineering, Systems and Decision Sciences, and Operations Research majors. SE402 integrates the principles, concepts and models	2023 8 2024 1

explored in previous core and engineering topic courses. The course applies the principles of systems design, engineering management, and/or reengineering to a real-world system. Cadets work under the supervision of a faculty member to address a problem presented by a real-world client, providing them an integrative experience for their education in engineering design.	2025 1 2026 1 2027 1 2027 8

COURSE	TITLE	CREDIT HOURS
SE403 2019-2	SYSTEMS DESIGN & MANAGEMENT II	4.0 (BS=0.0, ET=4.0, MA=0.0)

Scope	Offerings
SCOPE Systems Design and Management II is the second course in a two-semester capstone experience for Systems Engineering, Systems and Decision Sciences, and Operations Research majors. SE403 integrates the principles, concepts and models explored in previous core and engineering courses. The course applies the principles of systems design, engineering management, and/or reengineering to a real-world system of direct concern to a real-world client. Cadets work under the supervision of a faculty member to continue work on the same project begun in SE402, culminating the integrative experience in their education.	2024 2 2025 2 2026 2 2027 2

COURSE	TITLE	CREDIT HOURS
SE450 2020-2	APPLIED SYS DSGN/DECISN MAKING	3.0 (BS=0.0, ET=3.0, MA=0.0)

Scope	Offerings
SCOPE This course is the third course of the three-course systems engineering sequence. The course serves as the culminating systems engineering experience for non-engineering cadets and integrates the principles, concepts, and models explored in previous courses. Cadets apply the Systems Decision Process to devise problem solutions that are effective and adaptable. Cadets work in groups to complete a culminating engineering design experience involving the solution of an incompletely defined problem with no single correct answer. Cadets must consider the economic, political, social and ethical constraints of the system and use creativity to generate potential design alternatives. Cadet groups will use models to analyze the alternative solutions and make a recommendation based on economic analysis and system performance. The course requires assessment of the recommended solution and a written plan for implementation.	2024 1 2024 2 2025 1 2025 2 2026 1 2026 2 2027 1 2027 2

COURSE	TITLE	CREDIT HOURS
SE485 2020-2	COMBAT MODELING	3.5 (BS=0.0, ET=3.5, MA=0.0)

Scope	Offerings
SCOPE This course explores the theoretical and practical issues in combat modeling and simulation - the study of combat systems, tactics, and the battlefield environment in conflicts between opposing forces. The course focuses on models and algorithms used in state-of-the-art combat simulations, and techniques for analyzing their effects. Major	2024 1 2025 1 2026 1

topics of investigation include the model development process, combat attrition models, combat methodologies, analysis of human performance data, verification and validation, and measures of effectiveness. Cadets learn to manipulate 3D visual and system characteristic databases to build and test virtual prototypes of new combat system designs. Application of design of experiments and statistical analysis methods assist cadets in assessing the effectiveness of weapons systems, doctrine, and tactics on the future battlefield. The cadet can apply the concepts learned in this course to evaluate potential new Army combat systems, force structures, or doctrinal changes. The techniques taught in this course are a significant part of the Systems Decision Process (SDP) as they encourage creative and independent thought that applies mathematical, physical, and computer sciences to solve future technological problems. Ethical implications in the development and use of combat models also are discussed.

2027 1

COURSE	TITLE	CREDIT HOURS
SE489 2008-1	AD IND STY IN SYS ENG/ENG MGMT	3.0 (BS=0.0, ET=0.0, MA=0.0)

Scope	Offerings
SCOPE This is a tutorial course in which an individual cadet or a group of cadets study in depth an advanced topic in systems engineering or engineering management under the direct mentorship of a faculty advisor. The scope of the course is tailored to the desires of the cadet(s) in consultation with a faculty advisor. Cadets will coordinate with a faculty mentor who has an interest and background in the research area and who will assist in scoping and developing course content. Communication skills are developed and assessed through both written reports and oral presentations.	2024 1 2024 2 2025 1 2025 2 2026 1 2026 2 2026 7 2026 9 2027 1 2027 2

COURSE	TITLE	CREDIT HOURS
SE490 2008-2	AD TOPICS IN SYS ENG/ENG MGMT	3.0 (BS=0.0, ET=0.0, MA=0.0)

Scope	Offerings
SCOPE This course provides in-depth study of a special topic or topics in systems engineering or engineering management not offered elsewhere in the USMA curriculum. This course is intended to broaden a cadet's or group of cadets' exposure to the systems engineering or engineering management discipline. The Department of Systems Engineering visiting professor or senior faculty member assigned to the course is responsible for developing the course topic or topics and advertising the course to prospective cadets.	2024 1 2024 2 2025 1 2025 2 2026 2 2027 1 2027 2

COURSE	TITLE	CREDIT HOURS

COURSE	TITLE	CREDIT HOURS
SE491 2008-1	RSRCH PROJ IN SYS ENG/ENG MGMT	3.0 (BS=0.0, ET=0.0, MA=0.0)

Scope	Offerings
SCOPE The cadet, or cadet team, integrates the concepts and techniques learned in previous Systems Engineering or Engineering Management courses to solve a current problem of interest to the Academy, the Department of the Army, or other agencies in the Department of Defense. Subject to approval from the course and program directors, cadets may select project topics which are follow-on research from their summer AIAD experience, a topic of interest to them, or one that is compatible with on-going research within the Department of Systems Engineering and/or the Operations Research Center of Excellence. Cadets will coordinate with a faculty mentor who has an interest and background in the research area and who will assist in scoping the project and directing the research effort. Cadets may work individually or in small teams, depending on the nature of the research. The course will culminate with a student presentation and a written report.	2023 8 2024 1 2024 2 2025 1 2025 2 2026 1 2026 2 2027 1 2027 2 2027 8

COURSE	TITLE	CREDIT HOURS
SE492 2001-4	IND ADV DEVELOPMENT COURSE	1.0 (BS=0.0, ET=0.0, MA=0.0)

Scope	Offerings
SCOPE This course offers the opportunity for cadets to receive academic credit for study and/or work completed during the Academic Individual Advanced Development (AIAD) program. The content of the course and the nature of academic credit will be determined by the Head of Department in consultation with the cadet and the summer host agency. Communication skills are developed with both written reports and oral presentations.	**No Course Offerings**

COURSE	TITLE	CREDIT HOURS
SM484 2020-1	SYSTEM DYNAMICS SIMULATION	3.5 (BS=0.0, ET=3.5, MA=0.0)

Scope	Offerings
SCOPE Simulation modeling can be used to study the effects of changes to existing systems or processes, or evaluate the performance of new systems prior to their implementation. The techniques taught in this course are a significant part of the Systems Decision Process (SDP) as they introduce the concept of dynamic systems thinking and analysis. By their nature, large scale systems are dynamic. These systems involve complex cause and effect relationships that form feedback loops between the variables of interest. These systems produce outcomes that are not always intuitive. The cadets use the properties of dynamic systems and analytical techniques to design continuous models of complex systems or processes, implement these models, and perform an analysis of the results. Topics include applications of System Dynamics, client/modeler relationships, problem articulation, functional modeling through causal loop diagrams and stock and flow diagrams, modeling and simulation in a PC-based continuous event simulation package, policy design, policy testing, and policy implementation. These concepts and principles are applied to military and civilian	2024 1 2025 1 2025 3 2026 1 2027 1

applications such as physical systems, human decision processes, population, and economic/business processes. Cadets develop communication skills by presenting their design results in both written reports and oral presentations. The course also addresses ethical implications in the development and application of dynamic models as well as interactions with decision makers. Cadets will spend several lessons in a computer lab environment.

COURSE	TITLE	CREDIT HOURS
XH102 2024-2	INTRO TO EXCEL SCHOLARS PROG	0.5 (BS=0.0, ET=0.0, MA=0.0)

Scope	Offerings
SCOPE This course introduces cadets to the Excel Scholars Program. It provides a structured approach to developing cadets in each of the four programs (Academic, Military, Physical, and Character) to prepare them for future leadership opportunities at USMA and to compete for post-graduate scholarship opportunities. This approach is accomplished through meetings focusing on mentorship, research opportunities, written and oral communication skills, and leadership development. Specifically, this course discusses cadets? practical study skills and habits to promote academic excellence. This course also facilitates building a cohesive Excel Scholars Program cohort for future program participation. A two-page reflective essay is completed by the course's end. A final pass/no-credit grade determination is recorded on the cadet transcript.	2024 2 2025 2 2026 2 2027 2

COURSE	TITLE	CREDIT HOURS
XH201 2024-1	FOUNDATIONS OF EXCEL PROGRAM	0.5 (BS=0.0, ET=0.0, MA=0.0)

Scope	Offerings
SCOPE This course further develops cadets in each of the four programs: Academic, Military, Physical, Character to prepare them for future leadership opportunities at USMA and to compete for post-graduate scholarship opportunities. This approach is accomplished through a series of meetings that focus on mentorship, research opportunities, written and oral communication skill development, and leadership development. Although this course has no pre- or co-requisites, it reinforces XH102 and focuses on improving cadets' interviewing, writing, testing, and research skills. Cadets will have classes on topics such as speed reading, test preparation strategies, resume development, and interview skills to enhance their personal and professional goals. Additionally, this course will seek opportunities for the cadets to participate in experiential learning trips to various national labs. A final pass/no-credit grade determination is recorded on the cadet transcript.	2024 1 2025 1 2026 1 2027 1

COURSE	TITLE	CREDIT HOURS
XH301 2024-1	INTERMEDIATE EXCEL PROGRAM	0.5 (BS=0.0, ET=0.0, MA=0.0)

Scope	Offerings

SCOPE This course further develops cadets in each of the four programs: Academic, Military, Physical, Character to prepare them for future leadership opportunities at USMA and to compete for post-graduate scholarship opportunities. This approach is accomplished through a series of meetings that focus on mentorship, research opportunities, written and oral communication skill development, and leadership development. Although this course has no pre- or co-requisites, it reinforces XH102/XH201 and encourages cadets to apply for XH Programs and develop their personal life stories to create personal statements tied to their research interests. A two-page reflective essay is completed by the course's end. Further, an application to the West Point Graduate Scholarship Program will be developed. A final pass/no-credit grade determination is recorded on the cadet transcript.

2024	1
2025	1
2026	1
2027	1