



# RAIKES SCHOOL OF COMPUTER SCIENCE AND MANAGEMENT (RAIK)

## RAIK 10 Raikes School Freshman Seminar

**Prerequisites:** Good standing in the University Honors Program; admission to the Raikes School of Computer Science and Management.

**Notes:** Required pass/no pass course designed to help incoming first-year Raikes students in their transition into the University of Nebraska-Lincoln

**Description:** Introduction to campus, college, departmental, and Raikes School resources and policies. Explore possible paths through college, discover career and research opportunities, and build skills to promote resiliency.

**Credit Hours:** 0

**Max credits per semester:**

**Max credits per degree:**

**Grading Option:** Pass No Pass

**Offered:** FALL

## RAIK 40 Professional and Life Skills

**Prerequisites:** Good standing in the University Honors Program; admission to the Raikes School of Computer Science and Management.

**Notes:** Required pass/no pass course designed to help senior Raikes students in their transition into the "real world."

**Description:** Provides tips and advice from industry professionals and Raikes School alumni to help navigate the "real world".

**Credit Hours:** 0

**Max credits per semester:**

**Max credits per degree:**

**Grading Option:** Pass No Pass

**Offered:** FALL

## RAIK 163H Honors: Innovation Processes and Software Engineering Fundamentals

**Crosslisted with:** CSCE 163H

**Prerequisites:** Good standing in the University Honors Program; admission to the Jeffrey S. Raikes School of Computer Science and Management.

**Description:** Introduction to innovation processes for interdisciplinary and team-oriented problem solving of software engineering, business development, and industrial design problems.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** FALL

## RAIK 181H Honors: Foundations of Accounting

**Crosslisted with:** BSAD 181H

**Prerequisites:** Good standing in the University Honors Program; admission to the Raikes School of Computer Science and Management.

**Notes:** First course in the Raikes School core.

**Description:** Introduction to financial and managerial accounting, and accounting information systems. Content integration and application, problem-solving and situational analysis.

**Credit Hours:** 4

**Max credits per semester:** 4

**Max credits per degree:** 4

**Grading Option:** Graded

**Prerequisite for:** ACCT 301; ACCT 308; ACCT 309; ACCT 312; ACCT 313; BLAW 371H; BLAW 372; FINA 461; MNGT 475; MNGT 475H; RAIK 476H; MRKT 341H; RAIK 341H; RAIK 182H; BSAD 182H; SCMA 350H

## RAIK 182H Honors: Foundations of Economics

**Crosslisted with:** BSAD 182H

**Prerequisites:** Good standing in the University Honors Program; admission to the Raikes School of Computer Science and Management and BSAD/RAIK 181H.

**Notes:** Second course in the Raikes School core.

**Description:** Introduction to microeconomics and macroeconomics. Content integration and application, problem-solving and situational analysis.

**Credit Hours:** 4

**Max credits per semester:** 4

**Max credits per degree:** 4

**Grading Option:** Graded

**Offered:** SPRING

**Prerequisite for:** BLAW 371H; BLAW 372; ECON 303; ECON 311A; ECON 311B; ECON 312A; ECON 312B; ECON 321; ECON 389; ECON 435; ECON 457; ECON 857; HIST 857; HIST 457; FINA 307; FINA 307H; FINA 361; FINA 361A; FINA 461; MNGT 475; MNGT 475H; RAIK 476H; MRKT 300; MRKT 341H; RAIK 341H; RAIK 381H; BSAD 381H; SCMA 350H

**ACE:** ACE 6 Social Science

## RAIK 183H Honors: Computer Problem Solving Essentials

**Crosslisted with:** CSCE 183H

**Prerequisites:** Good standing in the University Honors Program; admission to the Jeffrey S. Raikes School of Computer Science and Management.

**Description:** Introduction to problem solving with computers. Problem analysis and specification, algorithm development, program design, and implementation. JAVA in a Windows platform.

**Credit Hours:** 4

**Max credits per semester:** 4

**Max credits per degree:** 4

**Grading Option:** Graded

**Prerequisite for:** CSCE 235; CSCE 235H; CSCE 352; RAIK 184H; CSCE 184H; SCMA 335

**RAIK 184H Honors: Software Development Essentials****Crosslisted with:** CSCE 184H**Prerequisites:** Good standing in the University Honors Program; admission to the Jeffrey S. Raikes School of Computer Science and Management; and CSCE/RAIK 183H.**Description:** Problem solving with computers. Problem analysis and specification, data structures, relational databases, algorithm development, and program design and implementation. Discrete mathematics topics, propositional and predicate logic, sets, relations, functions, and proof techniques. Software Development Principles.**Credit Hours:** 4**Max credits per semester:** 4**Max credits per degree:** 4**Grading Option:** Graded**Prerequisite for:** BSAD 372H, RAIK 372H; CSCE 230, ECEN 230; CSCE 231; CSCE 322; CSCE 322H; CSCE 378; CSCE 378H; CSCE 453H, RAIK 453H; SOFT 260H, RAIK 283H**RAIK 185H Honors: Foundations of Leadership I****Crosslisted with:** BSAD 185H**Prerequisites:** Good standing in the University Honors Program; Admission to the Raikes School of Computer Science and Management.**Description:** Introduction to personal development and its application to leadership.**Credit Hours:** 1**Max credits per semester:** 1**Max credits per degree:** 1**Grading Option:** Graded**Prerequisite for:** RAIK 186H, BSAD 186H**RAIK 186H Honors: Foundations of Leadership II****Crosslisted with:** BSAD 186H**Prerequisites:** Admission to the Raikes School of Computer Science and Management and BSAD/RAIK 185H.**Notes:** Second course in the Raikes School leadership core. Letter grade only.**Description:** Continued pursuit and analysis of personal development and its application to leadership. Introduction to teams.**Credit Hours:** 1**Max credits per semester:** 1**Max credits per degree:** 1**Grading Option:** Graded**RAIK 188H Honors: Introductory Communication Seminar****Prerequisites:** Good standing in the University Honors Program; admission to the Raikes School of Computer Science and Management.**Description:** Basics of writing, editing, and presentation.**Credit Hours:** 1**Max credits per semester:** 1**Max credits per degree:** 1**Grading Option:** Graded with Option**RAIK 270H Statistics and Applications****Crosslisted with:** STAT 380**Prerequisites:** A grade of P, C, or higher in MATH 107 or MATH 107H.**Notes:** Credit toward the degree can not be earned in STAT 218 if taken after or taken in parallel with RAIK 270H/STAT 380.**Description:** Probability calculus; random variables, their probability distributions and expected values; t, F and chi-square sampling distributions; estimation; testing of hypothesis; and regression analysis with applications.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded with Option**Prerequisite for:** BLAW 371H; BLAW 372; BSAD 371H, RAIK 371H; CIVE 950; ECEN 850, ECEN 450; ECON 311A; ECON 311B; ECON 312A; ECON 312B; ECON 315; ECON 417; ECON 448; ECON 452; ENVE 430; FINA 361; FINA 361A; FINA 361H; MECH 343; MECH 380; MRKT 345; MRKT 350; MRKT 446; RAIK 370H, CSCE 370H; SCMA 331; SCMA 350; SCMA 350H; STAT 318; STAT 414**ACE:** ACE 3 Math/Stat/Reasoning**RAIK 283H Honors: Software Engineering III****Crosslisted with:** SOFT 260H**Prerequisites:** A grade of C+ or higher in either SOFT 161 or SOFT 161H or SOFT 162 or RAIK 184H or equivalent; CSCE 235. Credit toward the degree can only be earned in one of the following: SOFT 260, SOFT 260H or RAIK 283H.**Description:** Advanced data structures and their associated algorithms for solving computational problems. Techniques for systematically specifying, managing, and analyzing software requirements, and for managing software change and working effectively in teams.**Credit Hours:** 4**Max credits per semester:** 4**Max credits per degree:** 4**Grading Option:** Graded**Offered:** FALL**Prerequisite for:** CSCE 351, ECEN 351; CSCE 360, CSCE 361, CSCE 361H; SOFT 261; SOFT 261H, RAIK 284H**RAIK 284H Software Engineering IV****Crosslisted with:** SOFT 261H**Prerequisites:** Good Standing in UNL Honors Program or by invitation; a grade of C+ or higher in SOFT 260, SOFT 260H, or RAIK 283H. Credit toward the degree can only be earned in one of the following: SOFT 261, SOFT 261H or RAIK 284H.**Description:** Techniques and tools based on disciplined software engineering principles for producing, interpreting, and communicating visual artifacts related to software architecture and construction.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Offered:** FALL/SPR**Prerequisite for:** CSCE 405H, RAIK 405H; CSCE 461, CSCE 861, SOFT 461; CSCE 486; CSCE 486H; RAIK 401H, BSAD 401H, CSCE 401H, SOFT 401H**ACE:** ACE 2 Communication Competence

**RAIK 288H Honors Business Writing****Crosslisted with:** BSAD 220H

**Prerequisites:** Open to University Honors Program, 12 hours credit, MNGT 101/MNGT 101T or concurrent. Credit toward the degree can only be earned in one of the following: BSAD 220, BSAD 220H, or RAIK 288H.

**Description:** Principles of effective written business communication.

Focus on effective writing strategies used in business disciplines.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Prerequisite for:** ABUS 341, MRKT 341; BLAW 371; BLAW 371H; BLAW 372; BLAW 372H; BSAD 261; FINA 361H; MNGT 475; MNGT 475H, RAIK 476H; SCMA 350

**ACE:** ACE 1 Writing

**RAIK 341H Honors: Marketing****Crosslisted with:** MRKT 341H

**Prerequisites:** CoB Honors or Raikes in good standing or permission. 2.5 GPA; Sophomore standing; MNGT 101 (or 101T concurrent); BSAD 220; ECON 211; ECON 212. Credit toward the degree cannot be earned in MRKT 300 & any of: MRKT/ABUS 341 or MRKT/RAIK 341H.

**Notes:** Cannot be taken Pass/No Pass.

**Description:** The marketing system, its relations with the socioeconomic system, and the influences of each upon the other. Evolution and present structure of marketing institutions and processes. Customer attributes and behavioral characteristics, and how a marketing manager responds to these in the design of marketing strategies, using research, product development, pricing, distribution structure, and promotion.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Prerequisite for:** MNGT 475; MNGT 475H, RAIK 476H; MRKT 345; MRKT 346, SCMA 346; MRKT 347; MRKT 350; MRKT 355; MRKT 395; MRKT 396; MRKT 425; MRKT 426; MRKT 428; MRKT 441; MRKT 442; MRKT 443; MRKT 446; MRKT 449; MRKT 453; MRKT 458; MRKT 490; MRKT 491

**RAIK 370H Honors: Data and Models II: Data Science Fundamentals****Crosslisted with:** CSCE 370H

**Prerequisites:** Good standing in the University Honors Program or by invitation; admission to the Jeffrey S.Raikes School of Computer Science and Management; and RAIK 270H

**Description:** Introduction to approaches using data for prediction and learning. Exploration of data for linear and nonlinear data modeling, machine learning, and supportive methods from statistics and numerical methods.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded with Option

**Offered:** FALL/SPR

**Prerequisite for:** BSAD 371H, RAIK 371H

**RAIK 371H Honors: Data & Models III: Fundamentals of Management Science****Crosslisted with:** BSAD 371H

**Prerequisites:** Junior standing in the Raikes School of Computer Science and Management and RAIK 270H and RAIK 370H.

**Notes:** Third course in Raikes School Data and Models course sequence.

**Description:** Focus on time series and random processes, simulation, network models, and constrained optimization for business modeling and decision making.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** SPRING

**Prerequisite for:** SCMA 437; SCMA 450; SCMA 451; SCMA 452; SCMA 458; SCMA 459

**RAIK 372H Honors: Business Law****Crosslisted with:** BSAD 372H

**Prerequisites:** Admission to the Raikes School of Computer Science and Management and RAIK 184H.

**Description:** Legal, ethical, and social issues related to the development and use of computer technology. Basic legal principles needed to recognize the relevant issues and the legal implications of business situations. Ethical theory, and social, political, and legal considerations. Scenarios in problem areas: privacy, reliability and risks of complex systems, intellectual property, and responsibility of professionals for applications and consequences of their work.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Offered:** SPRING

**ACE:** ACE 8 Civic/Ethics/Stewardship

**RAIK 381H Honors: Fundamentals of Finance****Crosslisted with:** BSAD 381H

**Prerequisites:** Good standing in the University Honors Program and admission to the Raikes School of Computer Science and Management; BSAD/RAIK 182H.

**Description:** Macroeconomics and introduction to advanced topics in accounting systems, finance, management and information systems. Content integration and application to problem-solving and situational analysis.

**Credit Hours:** 3

**Max credits per semester:** 3

**Max credits per degree:** 3

**Grading Option:** Graded

**Prerequisite for:** AEcn 416; ECON 365, FINA 365; FINA 338; FINA 363; FINA 367; FINA 375; FINA 382; FINA 450; FINA 464; MNGT 475; MNGT 475H, RAIK 476H

**RAIK 401H Honors: RAIK Design Studio I****Crosslisted with:** BSAD 401H, CSCE 401H, SOFT 401H**Prerequisites:** Good standing in the University Honors Program or by invitation; admission to the Jeffrey S. Raikes School of Computer Science and Management; RAIK 284H/SOFT 261H or equivalent.**Notes:** First semester in the Jeffrey S. Raikes School of Computer Science and Management design studio**Description:** Application of Raikes School core content in a team oriented, project management setting. Complete projects in consultation with private and public sector clients.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Offered:** FALL**Prerequisite for:** RAIK 402H, BSAD 402H, CSCE 402H, SOFT 402H**ACE:** ACE 8 Civic/Ethics/Stewardship**Experiential Learning:** Case/Project-Based Learning**RAIK 402H Honors: RAIK Design Studio II****Crosslisted with:** BSAD 402H, CSCE 402H, SOFT 402H**Prerequisites:** Good standing in the University Honors Program or by invitation; admission to the Jeffrey S. Raikes School of Computer Science and Management; BSAD/CSCE/SOFT/RAIK 401H.**Notes:** Second semester in the Jeffrey S. Raikes School of Computer Science and Management design studio**Description:** Application of Raikes School core content in a team oriented, project management setting. Complete projects in consultation with private and public sector clients.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Offered:** SPRING**Prerequisite for:** RAIK 403H, BSAD 403H, CSCE 403H**ACE:** ACE 10 Integrated Product**Experiential Learning:** Case/Project-Based Learning**RAIK 403H Honors: RAIK Design Studio III****Crosslisted with:** BSAD 403H, CSCE 403H**Prerequisites:** Good standing in the University Honors Program or by invitation; admission to the Jeffrey S. Raikes School of Computer Science and Management; BSAD/CSCE/SOFT/RAIK 402H.**Notes:** Third semester of Jeffrey S. Raikes School of Computer Science and Management design studio sequence.**Description:** Application of Jeffrey S. Raikes School of Computer Science and Management core content in a team oriented, project management setting. Complete projects in consultation with private and public sector clients.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Prerequisite for:** RAIK 404H, BSAD 404H, CSCE 404H**Experiential Learning:** Case/Project-Based Learning**RAIK 404H Honors: RAIK Design Studio IV****Crosslisted with:** BSAD 404H, CSCE 404H**Prerequisites:** Good standing in the University Honors Program or by invitation; admission to the Jeffrey S. Raikes School of Computer Science and Management; and BSAD/CSCE/SOFT/RAIK 403H.**Notes:** Fourth semester in the Jeffrey S. Raikes School of Computer Science and Management design studio sequence.**Description:** Application of Raikes School core content in a team oriented, project management setting. Complete projects in consultation with private and public sector clients.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Experiential Learning:** Case/Project-Based Learning**RAIK 405H Honors: RAIK Research Studio I****Crosslisted with:** CSCE 405H**Prerequisites:** Good standing in the University Honors Program or by invitation; admission to the Jeffrey S. Raikes School of Computer Science and Management; RAIK 284H/SOFT 261H or equivalent.**Notes:** First semester of Jeffrey S. Raikes School of Computer Science and Management research studio experience. Students work individually with a sponsoring faculty member from the area of their research and Raikes School faculty.**Description:** Application of research principles to solve complex problems through the delivery of innovative, cutting-edge solutions and to gain an understanding of the roles involved.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Offered:** FALL**Prerequisite for:** CSCE 406H, RAIK 406H**RAIK 406H Honors: RAIK Research Studio II****Crosslisted with:** CSCE 406H**Prerequisites:** RAIK 405H**Notes:** Second semester of Jeffrey S. Raikes School of Computer Science and Management research studio experience. Students work individually with a sponsoring faculty member from the area of their research and Raikes School faculty.**Description:** Application of research principles to solve complex problems through the delivery of innovative, cutting-edge solutions and to gain an understanding of the roles involved.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Offered:** SPRING

**RAIK 453H Honors: User Interfaces****Crosslisted with:** CSCE 453H**Prerequisites:** A grade of "P" or "C+" or higher in CSCE 156, CSCE 156H, CSCE 220, CSCE 311, RAIK 184H, SOFT 161, or SOFT 161H. Good standing in the University Honors Program.**Notes:** Enrolled students are expected to have advanced communication skills and a high commitment to conscientiousness. Students who are not in the University Honors Program but nonetheless meet these requirements may request permission of the instructor to enroll. Meeting ACE1 and ACE2 requirements prior to taking this course is recommended.**Description:** Introduction to the areas of user interfaces and user experience through reading and hands-on experiences. Areas covered include the psychology and physiology of design, the process of interface design, cultural values and accessibility, designing for beauty and delight, and dynamic evaluation strategies.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded with Option**RAIK 476H Honors: Business Strategies****Crosslisted with:** MNGT 475H**Prerequisites:** Open to CoB Honors and Raikes students, 2.5 GPA, ACCT 201 & 202, BSAD 261, ECON 211 & 212, FINA 361, MNGT 301, MRKT 341, SCMA 331, SCMA 350, or equivalent. Credit toward the degree can only be earned in: MNGT475, MNGT 475H or RAIK 476H.**Notes:** Cannot be taken Pass/No Pass.**Description:** Learn the principal concepts, frameworks, and techniques of strategic management. Formulate and apply business strategies, analyze cases, explore business simulations, and gain an understanding and appreciation of how strategy affects careers, company performance, and industry attractiveness.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**ACE:** ACE 10 Integrated Product**Experiential Learning:** Case/Project-Based Learning**RAIK 480H Honors: Generative AI - Applications, Ethics, and Research****Crosslisted with:** CSCE 480H, CSCE 880**Prerequisites:** Good standing in the University Honors Program; CSCE 320 or RAIK 370. Familiarity with machine learning is recommended.**Description:** Focuses on research and discussion to examine recent developments in and the implementations of Generative Artificial Intelligence (AI) systems. Covers ethical implications and potential broader impacts, while applying them to various domains, culminating in a class project. Specific concepts covered include core generative technologies ranging from variational autoencoders (VAEs), generative adversarial networks (GANs), and transformer-based models like large language models (LLMs) and diffusion image generation; key related concepts in terms of data considerations, model parameters and hyperparameters, finetuning and prompt engineering techniques; and practical use cases in terms of technology and industry through research paper reviews and case study discussions.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded with Option**Offered:** FALL