College of Professional Studies

148 Wilson Hall
Telephone: 256.824.6013
Email: CPSDeansOffice@uah.edu

Mission
The mission of the College of Professional Studies (CPS) is to increase student enrollment and retention; enhance and diversify academic offerings through quality interdisciplinary undergraduate programming; respond quickly and responsibly to workforce development needs; and promote and expand lifelong learning opportunities.

Degrees
Bachelor of Science in Engineering Technology
Bachelor of Science in Professional Studies
Bachelor of Arts in Professional Studies

The Bachelor of Arts or Bachelor of Science in Professional Studies (BPS) offers a flexible, well-rounded interdisciplinary curriculum that provides students the opportunity to expand their knowledge base across an array of academic disciplines to meet their individual goals. Students will learn how to communicate effectively, make informed decisions, and build analytical and critical thinking skills. The BPS degree can be completed fully online, in the classroom, or a combination of both.

Concentrations are offered in the following areas:

- Leadership Strategies and Dynamics
- Organizational Studies
- Technology Science and Society
- General Studies

Admissions

Freshman Students
Applications should be submitted through the Office of Admissions. Each applicant is evaluated based on individual merit and demonstrated success in a rigorous academic environment.

Transfer Students

UAH accepts credits awarded from institutions accredited by one of the regional agencies recognized by the American Council on Education (ACE). Credits transferred in from an accredited junior, community, or two-year institution can be applied for up to 50% of the degree requirements. Credits transferred in from an accredited four-year institution can be applied for up to 75% of the degree requirements. Transfer credit may also include ACE approved military training.

The College of Professional Studies is a partner with the Community College of the Air Force (CCAF) through the Air University Associate to Baccalaureate Cooperative (AU-ABC), which allows the application of up to 60 earned hours from any CCAF degree program to an approved BPS degree concentration.

The College can also accept up to 34 hours of technical credits awarded by an accredited institution which will be applied to the student’s plan of study as elective credit. Technical credits count as part of the maximum number of credits accepted from junior, community, or two-year institutions. Technical credit may not be used to satisfy degree requirements such as general education, degree core requirements, or concentration requirements.

Students should provide an official transcript sent directly to the UAH Admissions office. Transfer credit will be applied as appropriate and at the discretion of the College.

Technical Requirements
All students in Professional Studies (freshmen or transfer) are required to have their own computer and access to a sufficient internet connection for participating in online instruction and completing assignments/projects/tests.

College of Professional Studies Academic Advising
To schedule an appointment with a College of Professional Studies academic advisor, click here. (http://www.uah.edu/academic-advising/)

Kellee Crawford, B.A., M.A.
149 Wilson Hall
Accreditation
The University of Alabama in Huntsville has institutional accreditation from the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award baccalaureate, masters, and doctoral degrees.

The College of Professional Studies offers the following degree programs:

Bachelor of Arts or Science in Professional Studies, Leadership Strategies and Dynamics Concentration (http://catalog.uah.edu/undergrad/colleges-departments/professional-studies/bachelors-ps/)
Bachelor of Arts or Science in Professional Studies, Organizational Studies Concentration (http://catalog.uah.edu/undergrad/colleges-departments/professional-studies/bachelors-ps/)
Bachelor of Arts or Science in Professional Studies, Technology Science & Society Concentration (http://catalog.uah.edu/undergrad/colleges-departments/professional-studies/bachelors-ps/)
Bachelor of Arts or Science in Professional Studies, General Studies Concentration (http://catalog.uah.edu/undergrad/colleges-departments/professional-studies/bachelors-ps/)
Bachelor of Science - Engineering Technology (http://catalog.uah.edu/undergrad/colleges-departments/professional-studies/engineering-technology/)

Organizational Studies
Prepare for careers that involve finding solutions to human problems in organizations and communities. Coursework will focus on business (emphasis on management and information systems) and humanities/social sciences (emphasis on communications, philosophy, political science, psychology, education, and/or sociology). The curriculum will include organizational theory and behavior, professional ethics, management, information systems, individual and group dynamics, and communication skills. Students will acquire an understanding of human behavior in groups, organizations, and larger systems.

Leadership Strategies and Dynamics
Develop an understanding of foundational leadership theory in your chosen context. Focus on the nature of leadership in a variety of settings and prepare for leadership responsibility in the community and in your selected profession. Coursework will focus on business (emphasis on leadership and management) and social sciences/humanities (emphasis on communications, history, philosophy, political science, psychology, and/or sociology). Courses will provide an educational experience in theories of motivation, leadership styles, organizational and group behavior, professional ethics, communication, theories of cultural difference and multicultural communication, human resources, and/or budgeting.

Technology, Science, and Society
Integrate the study of science, engineering, and/or technology with its social and cultural impact on humanity. Focus on developing a broad understanding of the technical, historical and social dimensions of science and technology. Curriculum options include engineering, the natural sciences, computer science, information sciences, business, the social sciences, and/or humanities. The curriculum provides an interdisciplinary approach to explore the significance, challenges, and effects that science and technology present to society. Courses allow students to incorporate technical scientific knowledge with analytical thinking from a social perspective.

General Studies
Design a curriculum to best support your professional and personal interests. Coursework places a priority on interdisciplinary studies, critical analysis, oral and written communication, ethics, and teamwork. It allows students to fulfill general education credits, study relevant topics, develop versatile skill sets, and prepare for a wide range of career options.

Engineering Technology (ET) Courses
ET 301 - ENGINEERING TECH FNDNS I
Semester Hours: 3

An introduction to the Engineering Technology profession, resources and skills. Students will learn about engineering design, communication, professional ethics, and basic principles and physical laws used to understand and solve engineering related problems. Prerequisites: MA 113 or higher, EH 102 or EH 105 and PH 102 or higher.
ET 302 - ENGINEERING TECH FNDNS II
Semester Hours: 3
A follow-on to ET 301, the course introduces the Engineering Technology profession, resources and skills. Students will learn about computational engineering tools, graphical communication, characteristics of materials, in addition to the mathematical and statistical methods used to understand and solve engineering-related problems. Co-requisite: ET 301 (Grade of C- or better).

ET 305 - ENGINEERING COMMUNICATION
Semester Hours: 3
Students will learn to communicate professionally in an engineering/technical environment. Students will develop written communication such as letters, memos, reports and proposals, create clear process descriptions and instructions, and deliver persuasive and effective oral presentations. Prerequisite: EH 102 or EH 103 or EH 105.

ET 310 - COMPUTER-AIDED DESIGN
Semester Hours: 3
An introduction to Computer-Aided Design (CAD) using Creo Parametric. Covers basic concepts of 3D modeling techniques and frequently used commands required to advance from a novice to an intermediate user level of Creo Parametric. Prerequisite: ET 302 or PRO 332 (grade of C- or better), or special permission. MAE 211 accepted as a substitute. PRO 333 or ET 310 does not substitute for MAE 211.

ET 314 - QUALITY CONTROL TECHNIQUES
Semester Hours: 3
This course will blend statistical quality control concepts and hands-on training in the methods, standards and guidelines currently being used for industrial quality control includes quality management systems such as ISO 9000 and Six Sigma and the design and application of control charts. Prerequisite: MSC 287 or equivalent (grade C- or better).

ET 334 - PRINCIPLES OF STATICS
Semester Hours: 3
Develop an undertaking of the principles of statics. Topics include resultant and equilibrium of noncurrent and concurrent forces, force analysis of structures and machines, force systems in space, friction, centers of gravity, centroids, and movement of inertia of areas. Prerequisites: ET 302 or PRO 332, MA 171, ENG 101 or equivalent and PH 101. PRO 334 or ET 334 can not be used as a substitute for MAE/CE 271.

ET 335 - STRENGTH OF MATERIALS
Semester Hours: 3
Comprehend and compare the behavior of solid objects subjected to various stresses and strains. Topics include stress and strain for axial loads, shear stresses and strains in torsion members, bending and deflection of beams, combined stress using Mohr's circle columns, and structural connections. Prerequisite: ET 334 or PRO 334 or MAE 271 or CE 271 (all with grades of C- or better).

ET 336 - PRINCIPLES OF DYNAMICS
Semester Hours: 3
Learn the principles of Dynamics based on two broad areas of study, Kinematics and Kinetics. Kinematics is the study of the geometry of motion. Kinetics is the study of the relation between the forces acting on a body, the mass of the body, and the motion of the body. Prerequisite: ET 334 or PRO 334 or MAE 271 or CE 271 (all with grades of C- or better).

ET 341 - ELECTRICAL CIRCUITS & SYSTEMS
Semester Hours: 3
This course introduces the major topics related to electrical circuits and systems and demonstrates how electrical engineering concepts are applied in other fields and everyday products. Topics include basic circuit analysis, digital systems, electronic devices and circuits, and electromechanics. Prerequisites: ET 302 or PRO 332 (grade of C- or better), MA 171, PH 102, ENG 101 or equivalent, MSC 287 or equivalent.

ET 431 - FUNDAMENTALS OF MANUFACTURING
Semester Hours: 3
This course introduces the fundamentals of manufacturing, examining the selection and use of various materials, processes, and systems. Prerequisites: (ET 310 or PRO 333 or MAE 201) and (ET/PRO 341 or EE 213) and (ET/PRO 335 or MAE 370 or CE 370).

ET 433 - INSTRUMENTATION & MEASUREMENT
Semester Hours: 3
This course introduces valuable topics that an engineering technologist needs to master in order to design measurement and instrumentation systems. Topic areas include the essential general characteristics of instruments, electrical measurement systems, and computerized data acquisition systems. Prerequisites: (ET/PRO 335 or CE 270 or MAE 370) and (ET/PRO 341 or EE 213). Co-Requisite: ET 434 lab required.
ET 434 - INSTRUMENT & MEASUREMENT LAB  
Semester Hour: 1  
Prepares students to design experimental projects and measurement systems. Topics include the essential characteristics of instruments, electrical measurement systems, and computerized data acquisition systems. Co-requisite: ET 433.

ET 495 - INTERNSHIP FOR ENG TECHNOLOGY  
Semester Hours: 1-3  
Provides hands-on experience in an engineering-technology field. The experience must include a suitable academic component evaluated by a faculty-advisor. Students must complete the internship approval process and be registered for the internship prior to the start of the internship. Prerequisites: ET 305, ET 335.

ET 498 - PROJECT MANAGEMENT FOR ET  
Semester Hours: 3  
Acquire the basics of project management including planning, managing cost, schedule, and scope of a project in a risk-filled environment over a project lifecycle. This is the first of a two-semester capstone progression. ET 498 must be taken the semester before ET 499. Prerequisites: PRO 310, ET 305, ET 310, ET 314, ET 335, ET 341 (All with grades of C- or better).

ET 499 - CAPSTONE FOR ENGINEERING TECH  
Semester Hours: 3  
In this capstone course students demonstrate their ability to apply both technical and non-technical skills in solving problems appropriate to the discipline including: designing components, systems and/or processes, conducting tests, communicating results, and functioning effectively on teams. Prerequisite: ET 498.

Professional Studies (PRO) Courses

PRO 101 - INTRO COLLEGE ACADEMY  
Semester Hours: 3  
Focus is on learning theory, discovering learning style preferences and appropriate, effective study methods, understanding the issues facing college students today and strategies to overcome them, learning about available campus academic and student support resources and how to utilize them improving oral and written communication skills. Identifying UAH academic organizations and recognizing the importance of involvement and developing the skills. Must be part of College Academy. May not be used for Charger Foundations.

PRO 280 - PRIVATE PILOT GROUND SCHOOL  
Semester Hours: 3  
Prepares student for FAA Private Pilot written examination. Provides student with necessary knowledge to progress into primary pilot flight training. A kit for approximately $150 must be purchased.

PRO 301 - THRY & PRAC ADULT LEARNING  
Semester Hours: 3  
This course presents an overview of five foundational learning theories and related research in adult education and development. The conceptual framework is centered on discovering what motivates the adult learner and the impact social perspectives have on adult learning through analysis and discussion. Students will define competencies needed for success in academic study and professional leadership, in setting educational goals, and in planning a learning experience to achieve them. Emphasis is placed on issues unique to adult re-entry students and the university services available to support nontraditional students.

PRO 310 - ACADEMIC WRITING PROFESS STUDI  
Semester Hours: 3  
Students will learn academic writing skills by engaging in the process of academic inquiry and argument. The course will cover a broad perspective of writing by exploring various writing and research styles used through different academic professions. Prerequisites: EH 102 or EH 105.

PRO 320 - INDS PERSPECT & CRITICAL THNKG  
Semester Hours: 3  
Interdisciplinary studies fosters foundational knowledge acquisition by which individuals draw on multiple disciplinary perspectives and integrate their insights and modes of thinking to advance the studies and the fundamental development of critical and analytical thinking skills. Complex issues are addressed from multi-faceted perspectives that stimulate problem solving, problem defining and problem posing. Emphasis is placed on how to synthesize evidence drawn from multiple sources as a basis for informed decision-making.
PRO 321 - MEDIA LITERACY  
Semester Hours: 3  
Investigate the interdisciplinary nature of 21st-century media. Students analyze the combined influence of production methods, semiotics, politics, ethics, and psychology on our critical understanding of advertising, propaganda, conspiracy theories, social media, and the Internet of Things. Prerequisite: EH 102.

PRO 322 - TECHNOLOGY, SCIENCE & SOCIETY  
Semester Hours: 3  
Apply critical thinking and conceptual tools to understand implications of technology and science on society by examining scientific facts, social impacts or new technology, and benefits and risks of rapid changes through an interdisciplinary theoretical framework. Prerequisite: EH 102.

PRO 325 - INDS RESEARCH & APPLICATIONS  
Semester Hours: 3  
Interdisciplinary research is a contemporary decision-making process for transcending the scope of a single discipline or program to develop insights that offer bold advances in knowledge, solutions to urgent societal problems, an edge in technological innovations, and a more integrative knowledge of multidisciplinary theories and concepts. This course introduces the primary drivers for interdisciplinary research and examines the interdisciplinary research process. Students will apply an integrated model for conducting research that draws on multiple disciplines. Prerequisites: PRO 310 and PRO 320.

PRO 398 - SPEC TOPICS: INTERDISC STUDIES  
Semester Hours: 3  
Course uses an interdisciplinary approach to draw on intersecting and divergent knowledge from a variety of scholarly disciplines in order to create an in-depth and multi-faceted understanding of a particular instructor chosen issue, topic or problem. Prerequisite: EH 102.

PRO 399 - INDEP STUDY: INTERDISC STUDIES  
Semester Hours: 3  
Course allows individual students to pursue an interdisciplinary topic of interest which is not otherwise available and may involve any combination of readings assignments, tutorials, lectures, papers, presentations, or field/laboratory study (determined in consultation with instructor). Prerequisite: PRO 325.

PRO 498 - INQUIRY AND LEARNING  
Semester Hours: 3  
Inquiry-based learning accelerates understanding, fosters critical thinking skills, and facilitates self-direction and discovery. Using this method, students will identify an interdisciplinary problem related to their approved concentration area, perform the foundational research, and formulate a research proposal. This is the first of a two-semester progression to complete a Capstone research thesis/project in PRO 499. Prerequisite: PRO 325.

PRO 499 - CAPSTONE EXP: RSCH THESIS/PROJ  
Semester Hours: 3  
Students majoring in Professional Studies are required to complete a senior research thesis in their approved interdisciplinary concentration. This Capstone course requires the student to demonstrate his/her ability to integrate the core knowledge and skills gained in their interdisciplinary areas of study using inquiry-based learning methods. Research is conducted and a thesis-style paper is written and orally presented. Prerequisite: PRO 498 with minimum grade of C-.

Specialized Credit Courses  
UAH offers specialized credit courses that support various educational partnerships. The following courses have distinct admission and registration requirements. For details, email CPSprograms@uah.edu, phone 256.824.2808, or visit CPS.uah.edu/USSRC (https://www.uah.edu/pcs/conferences-special-programs/ussrc-partnership/).

ESS 100 - INTRODUCTION TO SPACE SCIENCE  
Semester Hour: 1  
Covers physiology in space, computer systems, and materials in space, robotics, thermodynamics, astrophysics, and solar physics. Laboratory experiments and simulated missions. Offered in cooperation with the U.S. Space & Rocket Center. Prerequisite: Available only to high school students with U.S. citizenship enrolled in Advanced Space Academy®.

ENG 105 - INTRODUCTION TO AERONAUTICS  
Semester Hour: 1  
Introduction to a variety of aviation subjects, including flight physiology, computer systems, aerodynamics, aeronautics, jet propulsion, thermodynamics, navigation, and survival skills. Lectures and simulated missions. Offered in cooperation with U.S. Space & Rocket Center. Prerequisite: Available only to high-school students with U.S. citizenship enrolled in Aviation Challenge® Mach III.
Non-Credit Programs

UAH College of Professional Studies (CPS) provides access to quality education and training for individuals; partners with businesses and government for workforce development; enhances public awareness of the instructional and research strengths of the University; promotes lifelong learning fostering continued growth, human fulfillment, and positive social change; and supports economic development throughout North Alabama. These objectives are carried out through the following programming departments: Professional Development Solutions, Conferences and Special Programs, Osher Lifelong Learning Institute, Testing and Certification Services, and Internal Testing. For more information about CPS programs, visit CPS.uah.edu (https://www.uah.edu/pcs/).

CPS Registration Services

103 Wilson Hall
Telephone: 256.824.6010 or 800.448.4031
FAX: 256.824.6760
Email: CPSreg@uah.edu

UAH College of Professional Studies (CPS) Registration Office provides registration services for non-credit programs and select credit courses. Registration options include online, phone, fax, or in person. There is no formal application process for non-credit courses and enrollments are taken throughout the year. Transcripts for continuing education units (CEUs) are available upon written request for a $5 fee per transcript. Visit CPS.uah.edu (https://www.uah.edu/pcs/) for registration information and related policies.

Professional Development Solutions

113 Wilson Hall
Telephone: 256.824.4430
Email: pdsolutions@uah.edu

Mission

Professional Development Solutions (PDS) develops and presents professional training and educational activities in areas including data science, data analytics, management, engineering, cybersecurity, information technology, leadership, certification exam preps, and other professional skills. PDS programs complement the participant’s educational degree and validate professional capabilities. Programs are designed to allow a participant the choice of attending individual courses of interest or completing a more structured certificate program leading to a Certificate of Professional Achievement. Programs are offered in an atmosphere conducive for meeting professional training needs, and available in various formats such as classroom, live-virtual online, online on-demand, and blended. CPS maintains state-of-the-art computer labs and classrooms, and its instructors are known and respected industry practitioners and researchers in their respective fields.

Visit pdsolutions.uah.edu (https://pdsolutions.uah.edu/) (http://pdsolutions.uah.edu/) for the current schedule of course offerings.

DATA SCIENCE AND DATA ANALYTICS

Applied Machine Learning
Basic Business Statistics
Data Analytics and Visualization
Data Visualization Using Tableau®
High-Performance Computing (HPC) Foundations
Modern Data Analytics
R Programming
SQL for Data Science

CYBERSECURITY

A+
Certified Ethical Hacker (CEH™)
Certified Information Systems Security Professional (CISSP®)
CompTIA® Advanced Security Practitioner (CASP+)
Linux+
Network+
Security+

EXAM PREPS

A+
Certified Associate in Project Management (CAPM®)
Certified Systems Engineering Professional (CSEP)
FAA Drone Pilot License Exam Prep
Private Pilot Ground School

MANAGEMENT AND LEADERSHIP
Basic Business Statistics
CAPM® Certification Bootcamp
Critical Thinking and Problem Solving
Earned Value Management
Emotional Intelligence
Federal Contract Management
Government Technical Evaluation of Proposals
Leadership and Management Skills
Master Logistician
Project Management
Strategic Decision Management

ENGINEERING
ASEM® Certification Exam Prep
Computer-Aided Design
Digital Engineering
DOORS® - Requirements Management Application
Hypersonic Aerodynamics
MATLAB for Engineers and Analysts
Missile Guidance, Navigation, and Control
Missile Systems
Model-Based Systems Engineering with SysML
Modeling and Simulation
Nitrous Decomposition Hazards
Rocket Propulsion
Rotorcraft
Systems Engineering
Systems Thinking: Problem-Solving Tools and Techniques
Test and Evaluation
Unmanned Aerial Vehicles (UAVs)

INFORMATION TECHNOLOGY
C++ Developer
Computer-Aided Design
DevOps
DevSecOps
Java Developer
Linux
Machine Learning
Master Programmer
Microsoft Office
Object-Oriented Programming
PowerShell
Python Developer
QuickBooks
SQL
Web Developer

PROFESSIONAL SKILLS
Aerial Photography and Mapping for Unmanned Aircraft Systems (UAS)
FAA Drone Pilot License Exam Prep
Interior Design
Presentation Skills
Customized Training

UAH's customized training solutions offer organizations ways to seize new opportunities and systematically address key problems. Professional Development specialists work directly with corporate, government, and professional organizations to develop high-quality certificate programs and short courses that meet specific training goals. These programs can be offered on-site, on campus, or via online learning (virtual or on-demand). Through targeted learning experiences and Subject Matter Experts who have front-line, real-world experience, the individual or team can bring new tools and competencies back into the organization, providing an immediate on-the-job impact.

Outreach and Events

105 Wilson Hall
Telephone: 256.824.2808
Email: CPSprograms@uah.edu

Fathia Hardy, Director of Outreach and Support Services

The Outreach and Event Management unit embodies collaborative projects and mutually beneficial partnerships among The University of Alabama in Huntsville and external groups that enrich both our academic and research missions and the communities we serve. Our management team hosts and co-hosts various conferences, training sessions, symposiums, continuing education, special events, meetings, and workshops. Visit CPS.uah.edu/Conferences for current information.

Osher Lifelong Learning Institute (OLLI)

111 Wilson Hall
Telephone: 256.824.6183
Email: OLLI.info@uah.edu
Clay Williams, OLLI Program Manager

Mission

The Osher Lifelong Learning Institute (OLLI) and the College of Professional Studies partner to provide lifelong learning courses and enrichment activities designed to fulfill the educational needs of adults age 50+. OLLI at UAH is a member-led, non-profit, volunteer-based organization that advances the educational, cultural, and social interests of its members by sponsoring courses, socials, bonus presentations, industrial tours, and travel opportunities designed to fit the interests and needs of its members. CPS supports OLLI's efforts by providing support services and intellectually stimulating on-campus and virtual environments that support adult lifelong learning and enhance community outreach.

Curriculum

Courses offered in a wide range of subject areas:

- Arts and Music
- Finance and Economics
- Foreign Languages
- Health and Fitness
- History and Government
- Information Technology
- Leisure, Games, and Nature
- Literature and Writing
- Psychology, Philosophy, and Sociology
- Science and Mathematics
- Skills and Hobbies
- Travel
- OLLI Alabama Shares

We offer three terms a year, including a mini-term in the summer. Most courses meet 1.5 hours per class, once a week, for 4-8 sessions. We also offer courses in our popular “OLLI After Five” format. OLLI courses are taught by qualified volunteer instructors. Courses are not graded, and no tests are administered. Visit Osher.uah.edu for current information.
Testing and Certification Services

214 Wilson Hall
Telephone: 256.824.6373
Email: TaCS@uah.edu
Maria Bricker, Assistant Director

Mission

The University of Alabama in Huntsville Testing and Certification Services (TaCS) unit is committed to providing exceptional, accessible, and comprehensive testing services for students, graduates, professionals, and individuals from our surrounding communities. As a certified center of the National College Testing Association (NCTA), we are dedicated to upholding high standards of security and academic integrity by maintaining and adhering to their Standards and Guidelines.

Tests

The TaCS office offers numerous testing opportunities to include:

- ACT
- Alabama State Dept of Insurance Exam
- CLEP/DANTES
- GRE
- HESI
- Kryterion
- MAT
- National Center for Competency Testing
- Pearson VUE Testing
- Proctored Exams
- PROV
- Residual ACT
- SAT
- Scantron

Visit CPS.uah.edu/TaCS (https://uah.edu/pcs/testing-certification-services/) for a full list of available tests, test schedule, policy and guidelines, and ways to register.

Instructional and Testing Services

225 Wilson Hall
Telephone: 256.824.6725
Email: testing@uah.edu
Maria Bricker, Assistant Director
Website: uah.edu/testing (https://uah.edu/testing/)

Instructional and Testing Services provides high-quality test administration and assessment services for UAH faculty and students. It subscribes to and abides by the professional standards and guidelines for post-secondary test centers, as adopted by the National College Testing Association. Instructional and Testing Services offers a variety of services for UAH instructors and students including Online Learning exams, proctoring make-up exams, and deferred finals.