Position Profile – Assistant/Associate Professor, Cyber Operations

The Department of Cyber, Intelligence, and Information Operations (CIIO) at the College of Applied Science and Technology (CAST) invites applications for multiple positions in Cyber Operations. These positions are available as remote appointments for highly qualified candidates. These tenure-track Assistant/Associate Professor positions will begin in August 2023.

CAST offers the Bachelor of Applied Science Degree to diverse, transfer, post-traditional students in an online format. CAST is also actively growing online master’s and doctorate degree programs across all its disciplines.

Candidates must be committed to outstanding undergraduate and graduate teaching and research for our diverse student population. We are seeking interdisciplinary-focused colleagues eager to collaborate across the college’s programs and degrees. This position will contribute to building a strong team of culturally diverse faculty and staff who are committed to preparing students to be future-focused and career-ready in a 21st-century workforce.

Applications will be reviewed starting August 15, 2022, until the positions are filled.

Outstanding UA Arizona benefits include health, dental, and vision insurance plans; life insurance and disability programs; sick leave and holidays; UA/ASU/NAU tuition reduction for the employee and qualified family members; state and optional retirement plans; access to UA recreation and cultural activities; and more! The University of Arizona has been recognized for our innovative work-life programs. For more information, please click here.

Position Duties and Responsibilities

- A commitment to excellence in teaching is expected. The faculty member will teach classes in applied computing in CAST’s enhanced, online teaching model. The faculty member will engage virtually and in person to mentor and educate students who represent a diverse, post-traditional demographic, including over 50% of first-generation college students.
- The expected faculty load is teaching two courses per semester (40%), 40% research, and 20% service.
- The College’s project-focused, undergraduate teaching model involves undergraduates in internships, research, and other hands-on experiences. The faculty member will mentor students in capstone experiences.
- The faculty member will participate in outreach and contribute to departmental, college, and university service. In these and other ways, the faculty member will help to develop innovative approaches to enhancing student engagement, increasing diversity, and expanding collaborations with community and business partners.
- As a part of the university’s land grant mission in the borderland region of Arizona, the faculty member is expected to be actively involved in the college’s commitment to shrinking the digital divide and expanding access to education for underrepresented students.
- CAST values inclusive, interdisciplinary research and education. The faculty member is expected to collaborate effectively with colleagues across disciplinary lines.
Qualifications

Minimum Qualifications

- Ph.D. in Cyber Operations, Computer Science, Electrical Engineering, Computer Engineering, Mathematics, or closely related field. ABD candidates are encouraged to apply assuming a terminal degree is earned within one year of appointment.
- 0-3 years of academic experience
- Specific and demonstrable experience in one or more of the following areas:
  - Python, C, and/or Assembly Programming
  - Reverse Engineering
  - Malware Analysis
  - Wireless and Cellular Networking & Security
  - Vulnerabilities Analysis
  - Computer Networking
  - Software Development
  - Cloud Computing
  - Technical Project Management
  - Database
  - Threat Intelligence
  - Active Cyber Defense
  - Penetration Testing
  - Digital Forensics
  - Zero Trust Networking

- The initial appointment will be at the level of Assistant Professor, but an appointment at the Associate Professor level may be considered for exceptionally qualified candidates. To be considered for an appointment above the rank of Assistant Professor, candidates must have an internationally recognized record of distinguished research achievement, leadership, and teaching ability. Minimum qualifications for an Associate Professor level appointment will require 7+ years of academic or industry-related experience related to the course content areas listed and 10+ years are preferred.

Preferred Qualifications

- 4 – 6 years of demonstrated prior online teaching experience
- Experience with Research Methods
- Experience teaching and advising graduate students at the MS and/or Ph.D. levels
- Ability and interest in applied research involving undergraduate and graduate students
Procedure for Candidacy

Submit applications online at talent.arizona.edu. Include the following:

- Cover Letter
- Curriculum Vitae
- Statement of teaching philosophy

Questions should be directed to Josh Pauli, Ph.D., Department Head, jjpauli@arizona.edu, or Angela Lucero, Academic Program Manager, luceroa@arizona.edu. The initial review of applications will commence on or around August 15, 2022, until the position is filled.
College Profile

The University of Arizona’s College of Applied Science and Technology (CAST) is the only college at UAriazona that offers the Bachelor of Applied Science (BAS) Degree. CAST education is facilitated by the college’s one-of-a-kind Virtual Learning Environment that includes CyberApolis, a unique virtual city of 15,000 AI-driven bots that conduct business, engage in cybermedia, and demonstrate human vulnerabilities that support scenarios in our classes. BAS students are transfer, post-traditional students who take all their course work in CAST’s enhanced, online education model. This model offers a hybrid combination of synchronous and asynchronous online education with opportunities to have face-to-face interactions with student service staff and faculty at UAriazona locations throughout the state. CAST’s majors feature a common core of courses that develop writing, math, analysis, ethics, and critical thinking skills and include a senior capstone experience.

CAST’s Cyber Operations program was ranked the #1 online, undergraduate cybersecurity program by Academic Influence in 2021. In addition, CAST is a National Security Agency (NSA) designated Center of Academic Excellence in Cyber Operations (CAE-CO) and an Office of the Director of National Intelligence (ODNI) designated Intelligence Community Center of Academic Excellence (IC-CAE).

CAST is the University of Arizona’s only college headquartered Sierra Vista. Sierra Vista is located 75 miles southeast of the Tucson campus and is the home to Fort Huachuca and the Army’s Military Intelligence School. CAST enjoys a robust education and research partnership with city, county, state, and
government partners to include multiple relationships with Fort Huachuca’s many education, test, and evaluation organizations.

CAST houses three unique departments across the college. Each department has its own exceptional set of programs with interdisciplinary work that crosses into each of the other departments. In addition to the college’s exceptional program, it boasts 9 excellent Undergraduate Certificates.

### Programs

**Department of Applied Technology**
- Applied Computing
- Computer Science

**Department of Applied Science**
- Government & Public Service
- Administration of Justice
- Early Childhood
- Human Services
- Organizational Leadership & Regional Commerce

**Department of Cyber, Intelligence and Information Operations**
- Cyber Operations
- Intelligence and Information Operations

### Undergraduate Certificates

- Cybersecurity
- Cyber Operations
- Cyber Defense
- Cloud Computing
- Digital Forensics
- Information Warfare
- Security Computing
- Organizational Leadership
- Military Families
Cyber Operations

The National Security Agency designated the University of Arizona’s Cyber Operations program as a Center of Academic Excellence in Cyber Operations (CAE-CO). With this designation, UA joins an extremely exclusive group of only 20 Cyber programs in the nation. The NSA’s CAE-CO designation demonstrates that UA’s Cyber program meets the most demanding academic and technical requirements.

UA offers the Cyber Operations BAS degree in a Fully Online modality. Every Cyber Operations course provides live-synchronous lectures and hands-on exercises, utilizing relevant and up-to-date course materials. All online lectures are recorded and made available for students whose schedules do not allow them to attend the synchronous class meetings. Moreover, our UA Cyber Operations faculty are available to support student learning through both scheduled office hours and online live support.

UA Cyber Operations courses are structured to maximize the ability to learn by doing. Cyber is a highly technical field that requires hands-on experience to master the material. UA Cyber courses maximize the opportunity for students to gain the hands-on experience they will need to be successful cyber professionals. Students not only have to learn the concepts and technologies, but they must also demonstrate they have mastered the course content through hands-on exercises and interactive assessments.

There is no need for high performance, expensive computer equipment. UA provides each student everything they will need through an advanced Cloud-based Virtual Learning Environment. Students only require a broadband Internet connection and either a Windows, Mac, or Linux computer to access their learning resources. High performance desktops, advanced Cyber tools, and the world class CyberApolis virtual city are all preconfigured and provided to each student so they can focus on learning. CyberApolis is an unstructured synthetic live environment designed to replicate the real internet.
It provides a realistic non-scripted training environment that forces the student to synthesize and apply what they have learned. CyberApolis also has a robust web presence to support Cyber-related learning activities. Each website has a full network presence with integrated vulnerabilities designed to support specific learning objectives. Moreover, each site has an organizational structure with assigned virtual personas. CyberApolis currently has a bank, hospital, large retailer, water company, power company, shipping company, two online media sites, a Facebook-like social media site, a Twitter-like social media site, four IRC chat servers, an underground hacker community, an organized crime element, and a growing number of small retailers. CyberApolis’s population and infrastructure were specifically designed to support the scenarios necessary to verify and validate that our students have gained the knowledge, skills, and abilities required to be successful in the Cyber field.

The Cyber program has three tracks for students to choose from.

**ENGINEERING TRACK**

The Engineering Track is a deeply technical, interdisciplinary, security focused Computer Science program. The Engineering Track meets the National Security Agency (NSA) Center of Academic Excellence in Cyber Operations (CAE-CO) academic requirements.

**DEFENSE AND FORENSICS TRACK**

The Defense & Forensics Track is an interdisciplinary Cyber education program. The Defense & Forensics Track conforms to academic requirements from both the National Security Agency’s Centers of Academic Excellence in Cyber Operations (CAE-CO) and Cyber Defense (CAE-CD).

**LAW & POLICY TRACK**

The Law & Policy track is a multidisciplinary Cyber education program that lays a strong technical foundation, integrated with the legal and policy knowledge necessary to interact at the executive level. The Law & Policy track conforms with academic requirements from both the National Security Agency’s Centers of Academic Excellence in Cyber Operations (CAE-CO) and Cyber Defense (CAE-CD).
Intelligence and Information Operations

The U.S. Intelligence Community designated the University of Arizona’s Intelligence and Information Operations Program as an Intelligence Community Center of Academic Excellence (ICCAE). For the University of Arizona, the ICCAE designation demonstrates that its Intelligence and Information Operations program not only meets the most demanding and rigorous intelligence academic requirements but is one of the nationally designated ICCAE programs that prepares graduates for successful employment in the U.S. Intelligence Community.

Led by world class faculty and practiced intelligence experts, our program provides a challenging and practical curriculum with three areas of concentration to enhance students’ critical, analytical, and cultural skills. Students are presented unique scholarship, language and overseas cultural immersion opportunities and afforded exclusive internship and career placements assistance, intimate networking sessions with leaders and practitioners of the United States IC and professional development summits.

The Intelligence and Information Operations program has three tracks for students to choose from.

**OPERATIONAL INTELLIGENCE TRACK**

The Operational Intelligence track is a defense focused intelligence collection, synchronization, and analysis program that prepares graduates for immediate employment within the Intelligence Community. The Operational Intelligence track meets all of the Defense Intelligence Agency (DIA) Intelligence Community - Center of Academic Excellence (IC-CAE) academic requirements.

**INFORMATION WARFARE TRACK**

The Information Warfare track is focused on both offensive and defensive Information Operations. This track provides graduates with the skills necessary to detect, protect, and craft advanced information operation campaigns. The Operational Intelligence track meets all of the Defense Intelligence Agency (DIA) Intelligence Community - Center of Academic Excellence (IC-CAE) academic requirements.

**LAW ENFORCEMENT INTELLIGENCE TRACK**

The Law Enforcement Intelligence track is focused on Intelligence driven policing, forensic analysis, and information sharing. The Law Enforcement Intelligence track conforms to major Federal, State, and Local law enforcement agency academic requirements while also meeting the Defense Intelligence Agency (DIA) Intelligence Community - Center of Academic Excellence (IC-CAE) academic requirements.
Commitment to Diversity and Inclusion

At the College of Applied Science and Technology (CAST), we believe it is crucial for the success of the College to have a diverse community comprised of individuals with different ideas, strengths, interests and backgrounds that embrace efforts towards diversity in experience, thought, and action.

We see great benefit in the diversity of our students, faculty, and staff, as this helps us to better fulfill the wishes and multi-faceted demands of our students, faculty, staff, and communities, to provide a dynamic environment that yields academic excellence.

We strive to create an environment where all our students, faculty and staff are heard and appreciated – regardless of gender, nationality, ethnic origin, religion, world view, differently-abled abilities, age, sexual orientation or identity, or military affiliation. In action, we will work hard to create policies, programs, and opportunities that will ensure that diversity, equity, and inclusion thrive and are at the center of all that we do.

Our goal is to assist all CAST stakeholders by facilitating efforts that address critical issues related to diversity, equity and inclusion that result in positive outcomes where students, faculty and staff feel respected, are treated fairly, provided work-life balance, and have opportunities for professional development at CAST and throughout the University of Arizona community.

Our CAST values are aligned with the values of the University as a whole.

- INTEGRITY – Be honest, respectful, and just.
- COMPASSION – Choose to care.
- EXPLORATION – Be insatiably curious.
- ADAPTATION – Stay open-minded and eager for what's next.
- INCLUSION – Harness the power of diversity.
- DETERMINATION – Bear Down.
At the University of Arizona, we value our inclusive climate because we know that diversity in experiences and perspectives is vital to advancing innovation, critical thinking, solving complex problems, and creating an inclusive academic community. As a Hispanic-serving institution and a Native American/Alaska Native-serving institution, we translate these values into action by seeking individuals who have experience and expertise working with diverse students, colleagues, and constituencies. Because we seek a workforce with a wide range of perspectives and experiences, we provide equal employment opportunities to applicants and employees without regard to race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, or genetic information. As an Employer of National Service, we also welcome alumni of AmeriCorps, Peace Corps, and other national service programs and others who will help us advance our Inclusive Excellence initiative aimed at creating a university that values student, staff, and faculty engagement in addressing issues of diversity and inclusiveness.

Community Profile

Sierra Vista is located 75 miles southeast of the Tucson campus and is the home to Fort Huachuca and the Army’s Military Intelligence School. CAST enjoys a robust education and research partnership with city, county, state, and government partners to include multiple relationships with Fort Huachuca’s many education, test, and evaluation organizations. Sierra Vista sits at 4,600 feet at the foot of the Huachuca mountains and enjoys a moderate climate, extensive parks and trails, and a reputation as one of the best birding locations in the state. Here is a snapshot of our community. You can learn more at https://www.sierravistaaz.gov/.

Discover soaring mountain peaks under extraordinary skies, rich history, and room to roam. With 275 days of sunshine and a temperate climate, Sierra Vista is a year ’round destination for outdoor adventure, authentic history, and global cuisine.

With picturesque mountain views in all directions and a temperate four-season climate, Sierra Vista beckons visitors with clear skies, fascinating history, and world-class birding.

Surrounded by towering 10,000-foot mountains and known as the “Hummingbird Capital of the U.S.,” Sierra Vista is primed for outdoor exploration.

From its early days as a community growing under the protective wing of neighboring Fort Huachuca during the Apache Wars, Sierra Vista has blossomed into the recreational and cultural hub of
Cochise County. Thanks to the Fort, Sierra Vista is a melting pot of ethnic cuisine, where independent restaurants serve authentic dishes from around the globe.

Sierra Vista’s climate and southern location make it a major stop for rare birds. Though you can spot resident and migrating birds year-round, the annual Christmas Bird Count regularly records one of the nation’s highest tallies of inland species.

While you’re outside, take in the scenic panoramas, rolling byways, and outdoor trails by bike, boot, or hoof. With a 360-degree mountain view, you’ll see why Sierra Vista (literally “mountain view” in Spanish) is so aptly named.

When the sun sets, a thick blanket of stars blaze across the dark night. These views have paved the way for Sierra Vista as a center for amateur astronomy; the city has more than a dozen amateur observatories as well as the Patterson Observatory at University of Arizona’s Sierra Vista Campus, which offers public viewing.