National Cybersecurity Teaching Academy (NCTA) at California State University-Sacramento (Sacramento State)

Funded by the National Centers of Academic Excellence in Cybersecurity (located within the National Security Agency), and in partnership with the existing National Cybersecurity Teaching Academy (NCTA) coalition led by Dark Enterprises, DePaul University, UA Little Rock and University of Louisville, California State University, Sacramento (Sacramento State) is the fourth site to train high school teachers and grant graduate-level certificates to them for teaching cybersecurity.

Highlights of NCTA at Sacramento State

- **Format:** Virtual (lectures and labs all online)
- **Target Participants:** nation-wide high school teachers interested in teaching cybersecurity
- **Time:** Summer 2023 and Summer 2024
- **Contact:** Drs. Jun Dai ([jun.dai@csus.edu](mailto:jun.dai@csus.edu)) and Xiaoyan Sun ([xiaoyan.sun@csus.edu](mailto:xiaoyan.sun@csus.edu))
- **Support:** scholarship to fully cover tuition
- **Accomplishment:** a graduate-level certificate to teach cybersecurity
- **Link:** [https://www.csus.edu/college/engineering-computer-science/center-information-assurance-security/spotlight/ncta-at-sacstate.html](https://www.csus.edu/college/engineering-computer-science/center-information-assurance-security/spotlight/ncta-at-sacstate.html)

Course Structure of NCTA at Sacramento State

- **Summer 2023:** Foundations in Cybersecurity
  - Cybersecurity backgrounds, principles, concepts
  - Adversarial mindset, attack methods, defense mechanisms
  - Cybersecurity ethics, policies, laws and privacy
- **Summer 2023:** Introduction to Digital Forensics
  - Digital Forensics basics and principles
  - Digital Forensics laws, policies, and procedures
  - Investigation methods and practices
- **Summer 2024:** Methods for Teaching Cybersecurity
  - Curriculum guidelines/models, pedagogical strategies, and utilization of instructional tools and technologies
  - Pedagogical transfer to students with diverse backgrounds
- **Summer 2024:** Cybersecurity Practicum
  - Exposure to cybersecurity research or industry project experience
  - Applying knowledge in cybersecurity development, implementation, testing and documentation