

EMPOWERING STUDENT SUCCESS THROUGH INDUSTRY CONNECTIONS



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PRINCIPAL INVESTIGATOR MESSAGE



BRENDEN D. MESCH, Ed.D.

Principal Investigator and Campus Provost, Technical Campus, Collin College

FLEXTech has been an amazing project to be a part of as the Principal Investigator. The bold purpose of the grant was to provide students with a set of experiences to enhance their successful degree completion and entry into the workplace. We applied the apprenticeship model to the Information Technology and Cybersecurity industries so students could gain real world experience working in these fields prior to graduating from college. The opportunities provided for students are tangible and served as a catalyst for enhancing their career trajectories. While the timing of the grant alongside a global pandemic added some challenges, it also allowed the talented team behind this initiative to innovate in ways that evolved our support of students. The lasting benefits of this grant to Collin College students are numerous:

- Focused Career Coaching using NACE principles
- Enhanced partnership with IT/Cyber organizations that support and hire students
- Faculty members playing a greater role in career preparation and industry certification attainment
- Established best practices for job fairs and employer events
- Creation of a college group focused on experiential learning
- Development of data management systems to track student achievements & progress
- · Implementation of Handshake to enhance industry engagement and recruitment of students

We are hoping that this resource helps to share our experiences, best practices, and solutions to problems that others may face. It has been a pleasure to lead this effort and I hope you enjoy learning more about the journey we shared in support of students at Collin College.

- Brenden Mesch

STUDENT SUCCESS CYCLE

The FLEXTech Program Student Success Cycle guides program participants through a seven-step pathway from career goal setting to successfully completing educational and occupational training.



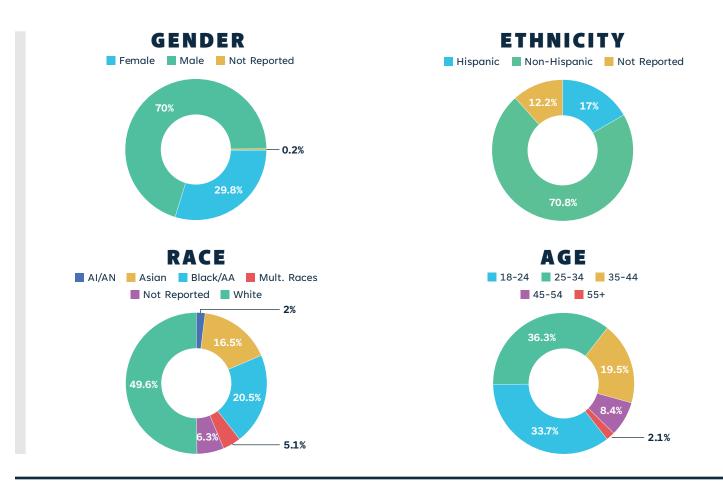
STUDENT PARTICIPANTS

To participate in the FLEXTech program, Collin College students were enrolled in an IT or Cybersecurity certificate or degree program and required to be a U.S. Citizen or permanent resident. Participants who enrolled in the program were diverse, including those who were unemployed, underemployed, and veterans.



The FLEXTech Program aimed to attract a diverse participant base, especially underrepresented groups in IT and Cybersecurity. Using data-driven recruitment, FLEXTech achieved notable diversity with 66% of participants aged 25+ and higher participation from Black/African Americans, women, and non-traditional students.

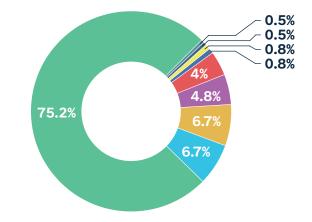
TOTAL NUMBER OF PARTICIPANTS: 653



The FLEXTech Program provided career support, guidance, and resources to Collin College students enrolled in IT-related programs and majors. The chart below provides a detailed distribution of participant enrollment across these areas. The distribution indicates that Cybersecurity was overwhelmingly the most represented major in the FLEXTech Program, making up over three-quarters of the total enrollment. Other significant areas of participation include Computer Systems and Computer Networking, each with 6.7% of students. The remaining programs have smaller participation rates: Web/Mobile Development (4.8%), Cloud Computing (4%), Animation/Game Art (0.8%), Continuing Education (0.5%), Computer Science (0.5%), and GIS (0.5%). This data highlights the dominant interest in Cybersecurity among FLEXTech participants at Collin College.

COLLIN COLLEGE PROGRAMS/MAJORS PARTICIPATION

Cybersecurity
Computer Networking
Computer Systems
Web/Mobile Development
Cloud Computing
Animation/Game Art
Continuing Education
Computer Science
GIS



Students who enrolled in the FLEXTech program worked toward completing a degree or certificate in addition to pursuing on-the-job training. Collin College provides several stackable credentials leading to an Associate of Applied Science in GIS, Web and Mobile Development, Database, Cloud Computing, Computer Systems, Computer Networking, and Cybersecurity, as well as a Bachelor of Applied Technology degree in Cybersecurity.

The distribution of the credentials (BAT, AAS, Certificate, OSA) awarded to FLEXTech participants during their enrollment in the program is as follows: The majority of these credentials, 801 or 71.07%, were in Cybersecurity. This was followed by Computer Networks, which accounted for 235 credentials or 20.85% of the total. Web Development awarded 40 credentials (3.55%), while Computer Systems awarded 34 credentials (3.02%). The Animation - Gamer Art, Cloud Computing, and Geospatial Information Science (GPIS) programs collectively awarded 17 credentials, representing 1.51% of the total. In total, 1,127 credentials were awarded across all programs.

Notably, 66% of credentials were awarded to participants aged 25+, 18% to Black/African Americans, and 28% to women. This comprehensive achievement underscores the success of the FLEXTech program in supporting a diverse range of students to attain valuable credentials that enhance their skills and employability in the IT industry.

EDUCATIONAL CREDENTIALS AWARDED: 1127

Collin College - Credentials Earned by FLEXTech Participants		
Credentials	Percentage of Total	
Bachelor of Applied Technology (BAT) – Cybersecurity	22.89%	
Associate of Applied Sciences (AAS)	9.14%	
Level 1 Certificates	50.40%	
Level 2 Certificates	9.14%	
Occupational Skills Awards	16.59%	

The FLEXTech Program provided financial assistance to participants for industry certifications, removing financial barriers and allowing students to enhance their credentials and marketability in IT-related occupations. This support demonstrated the program's commitment to equipping students with the necessary qualifications for successful IT careers while addressing the high-skill needs of employers in Collin County and the DFW area. Industry certifications, such as CompTIA A+, Network+, Security+, Cisco certifications, Microsoft certifications, and more, are highly regarded in the IT field. These certifications validated technical competencies and enhanced employability, providing students with a competitive edge in the job market.

The program supported 106 students in obtaining a total of 152 valuable industry certifications, signaling to employers that they possessed the required skills, knowledge, and abilities. This comprehensive support for industry certifications empowered students to enhance their qualifications, as evidenced by the total number of certifications obtained.

INDUSTRY CERTIFICATIONS EARNED: 152

Certification Name	Percentage of Total
AWS Certified Cloud Practitioner	11.76%
Certified Scrum Master	1.96%
Certified Wireless Technician	3.27%
Cisco Certified Network Associate (CCNA)	12.42%
CompTIA A+	7.19%
CompTIA Network+	11.11%
CompTIA Security+	35.29%
ECC - Certified Ethical Hacker	1.96%
Other	15.03%

CAREER READINESS

The FLEXTech program at Collin College offered comprehensive career preparation resources designed to support students in IT and IT-related fields. These resources included individualized resume preparation, career exploration, professional LinkedIn headshots, job search strategies, and practice interviews delivered through workshops and individual student appointments.

The program's career services were informed by the National Association of Colleges and Employers (NACE) career readiness competencies, which served as a foundational framework. These competencies encompassed critical areas such as critical thinking and problem-solving, oral and written communication, teamwork and collaboration, digital technology, leadership, professionalism and work ethic, career management, and global/ intercultural fluency.

By aligning its services with NACE career readiness competencies, the FLEXTech program ensured that students were not only well-prepared for the job market but also equipped with the essential skills required to succeed in IT-related occupations. This targeted support helped students navigate their career paths effectively and enhanced their employability in a competitive job market.

CAREER COACHING SERVICES



STUDENT SPOTLIGHTS



JASON JACKSON

When I joined FLEXTech, I did not expect much. I thought it would just be a couple of webinars and an impersonal experience like other college groups I have looked into. I could not have been more wrong.

It feels like a family, and it is beyond helpful to have so many like-minded students who I can network with and learn things from. I currently work desktop support for Realpage Smartsource IT and recently accepted a role as a network engineering intern with LEARN.

I am deeply grateful for Tara and all the other program leaders at FLEXTech for providing all the relevant job postings, tools to prepare my resume and cover letter for application, and interview preparation sessions to help really seal the deal.



EMMA JORDAN

FLEXTech has been an amazing resource for me as I have begun my cybersecurity career! It has helped me to begin building my network, writing my resume/cover letter, preparing for interviews, building my LinkedIn profile, and getting some insider information about the industry through Zoom workshops.

I still have yet to take advantage of tutoring. One of my favorite things FLEXTech has provided is a Handshake profile. Handshake is like a job site specifically for college students, and I have landed a few opportunities in the past that usually would have been hard to find.

STUDENT SPOTLIGHTS



NGHI NGUYEN

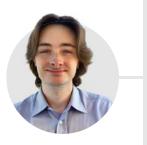
My passion for cybersecurity ignited during my first high school Capture the Flag competition. However, I lacked knowledge about crafting a resume and interviewing. The FLEXTech Apprenticeship program changed that.

Under Dr. Lewis's guidance and the program's support, I refined my resume, elevator pitch and interview skills. This program boosts my career readiness and links us to Handshake for internships, bringing me closer to my goal of being a penetration tester.



MUHAMMAD SHARIF

My FLEXTech experience has been nothing short of amazing. Genuine support provided by Tara and Nadia has helped align me to be industry-ready. Not only that, the FLEXTech team also helped me gain insight into what employers are looking for and what they are offering to early career professionals.



JASON WALKER

The FLEXTech apprenticeship program, led by Tara and Jakin, has been instrumental in preparing me for internships and job applications. They offer resume workshops, networking events, LinkedIn sessions and other valuable skills that make me stand out to employers. A year ago, I embarked on my cybersecurity journey, and I owe much of my progress to their support. I've successfully secured my third internship with the program's assistance.

EMPLOYER OUTREACH & ENGAGEMENT

The success of the FLEXTech program hinged on building relationships with employers. Developing these relationships and engaging employers in events resulted in participants' ability to network, advance their career readiness, and enhance their access to jobs or internship opportunities in IT and Cybersecurity fields.



EMPLOYER OUTREACH

The primary goals of the FLEXTech program were to increase internships and job opportunities for Collin College students in the IT and Cybersecurity fields and to address the high demand for skilled IT talent across Collin County and the DFW area.

To connect program participants seeking IT employment with employers looking to fill IT positions, the FLEXTech Program leveraged Handshake, a career services platform that connected students with employers. By utilizing Handshake, FLEXTech engaged and recruited employers, promoting the availability of trained Collin College students. This approach enabled students to explore and apply for relevant positions, expanding their chances of securing internships and employment opportunities aligned with their career goals. By effectively connecting Collin College students with IT employers in the area, the program contributed to the cultivation of a skilled and diverse workforce, meeting the growing demand for high-skill IT and Cybersecurity roles.



FLEXTECH EMPLOYERS

EMPLOYER ENGAGEMENT

By fostering strong partnerships with employers seeking high-skill IT talent, the FLEXTech Program successfully transitioned students into IT-related occupations. The FLEXTech Program implemented strategic outreach to secure employer participation in career fairs, networking events, and career readiness workshops. These collaborations provided valuable opportunities, enhancing participants' learning experiences while meeting employers' evolving high-skill needs.

Targeted engagement strategies prioritized building lasting relationships with employers. Personalized communication and continuous follow-up ensured mutually beneficial partnerships, supporting program objectives and contributing to successful labor market outcomes for participants.

In addition to promoting the use of Handshake, a career services platform, for posting internships and job opportunities, the program also encouraged employer participation in career fairs, workshops, and networking events. These events effectively showcased the skills and qualifications of FLEXTech participants. In all, these events secured valuable internships and employment opportunities for students, ensuring they were well-prepared for high-skilled IT occupations.

Nurturing employer relationships was essential for the success of the FLEXTech Program and its participants. By implementing targeted outreach strategies and emphasizing relationship-building, the program supported student success and drove workforce development in the community, contributing to a robust and skilled IT workforce.

MEETINGS WITH EMPLOYERS: 232

109 Participant Job Attainment



Participant Internship Attainment

EMPLOYERS

ABCorp AmenRA Securities AntamIT Appren AWS **Baylor Scott & White Frisco Bear Technologies** CEC Entertainment Cisco Citi City Electric Supply Collin College Critical Start Dallas ISD **Dell Technologies** Dickey's BBQ DKBinnovative Dvnata ECI Software Solutions EMS Barcode Solutions Encore Wire EΥ First Guaranty Bank floLIVE Global Views Globe Life **HCLTech** Health Care Service Corp.

HeartPlace IBM Independent Financial Insight Global JPMorgan Chase & Co. Kehr Technologies Kforce KidZania LEARN McAfee Meadows Behavioral Healthcare Moss Motorola Solutions Mr Cooper National General Insurance National Switchgear Netrio Netsvnc Network Solutions NTT Data **O'Neil Digital Solutions** Palo Alto Networks Paranet Solutions Pegasus Technology Solution Prosper ISD Prototype: IT PSFWeb Raytheon RealPage

Redline Networks Revature Sabre SecureITSolutions ServiceNow Sky5 Solutions SMP-CORP SRS Distribution StandardUser State Farm **TDI** Technologies TeamLogic IT Tech Mahindra Technoxi Texas Rangers The HCI Group T-Mobile Trellix Trend Micro TriTech Software TSP Tyler Technologies Verizon Wells Fargo

EMPLOYER SPOTLIGHTS



"Kehr Technologies requires skilled IT professionals to serve our business clients. We look to Collin College and FLEXTech to help us fulfill our staffing needs. We have been very pleased with the quality of the students, along with their level of IT knowledge. With Customer Service being key to our success, we find that students also bring these skills with them. I highly recommend FLEXTech to anyone who is looking to add quality staff."

- Bob Kehr, CTO



"The FLEXTech program is a truly impactful program that not only provides students with training for future skills needed for our workforce, but also has been vital in creating a pipeline of amazing talent that Dell Technologies has had the pleasure of providing full-time opportunities for! I would fully recommend this program to any students interested in top opportunities within information technology or any corporation looking to engage with the top talent Collin College has to offer!"

- Ricardo Stephens, Diversity Strategist



"The individuals I have hired who participated in the FLEXTech and Cisco NetAcad programs have the technical skills sets I need day one on my team, and they are prepared to have a long-term, successful career in technology."

- Dan Huff, Citi

ACTIVITIES AND EVENTS

The FLEXTech Program enhanced career opportunities for participants through innovative in-person and virtual events, including career fairs, recruitment, and networking events. Key initiatives provided platforms for job openings, internships, mentorship, and career advice. The IT Factor webinar series featured industry experts, offering insights and guidance. Success was bolstered by collaborations with campus partners.



FLEXTech staff organized the following events to enhance career opportunities for participants:

- Career Fairs & Employer Recruitment Events: FLEXTech held IT career fairs and recruitment events, both in-person and virtual, facilitating direct interaction between students and employers. These events provided platforms for exploring job openings and internships, enriched by employer information sessions.
- **Networking Events:** These events connected students with alumni and industry professionals, fostering mentorship, career advice, and job connections. Through these opportunities, students built professional networks, gaining insights and opportunities for internships and employment. Meet-and-greet events enhanced networking among participants.
- IT Factor Webinars: This series featured guest speakers from IT fields, offering students insights into industry trends, career pathways, and personal experiences. It aimed to deepen students' industry understanding and provided guidance from experts. Recordings are available at www.youtube.com/@Collinflextech/videos
- Workshops with Industry & Campus Professionals: These workshops provided hands-on experience and practical knowledge from industry professionals. Students gained insights into current practices, emerging technologies, and professional expectations. Collaborations with campus partners ensured tailored support for crafting effective resumes and cover letters, enhancing employability.

The success of these initiatives was bolstered by collaboration with Career Center Managers, Program Coaches, the Writing Center, and the Veteran's Center. These partnerships played a crucial role in organizing and promoting events, ensuring broad reach and effective student engagement.



DEVELOPMENT TEAM

The development, implementation, and success of the FLEXTech program required strategic thinking, prototyping, and developing relationships with key staff, faculty, community members, and employers. Amidst challenges such as changes in staffing and navigating the complexities of a global pandemic, the team remained resilient, adapted its approach, and established best practices to ensure the program's continuity and effectiveness.



FLEXTECH STAFF



TARA LEWIS, Career Coach

FLEXTech allowed us to go beyond traditional career services to focus on and integrate career readiness development and provide career capital to students as a part of their academic experience. It was a privilege to be a part of the development of this program through the challenges of its beginnings during a pandemic, coaching students and seeing their successes as they built their confidence and skill sets, and celebrating with them when they shared landing a job or internship.



NADIA KHEDAIRY, Program Coach

As FLEXTech's Cybersecurity Coach, I've been privileged to support our students, who often balance hefty responsibilities with their studies. Their achievements, from certifications to networking successes, especially during the IT/Cyber Career Fairs, fill me with pride. This program's immeasurable impact is clear, preparing them for career paths by promoting the adoption of a proactive approach to their career development.



J.T. HENDERSON, Program Coach

The Collin College Flextech program seamlessly prepares students for the transition from collegiate student to industry professional with career building skills and support such as IT tutoring, resume review and preparation, mock interviews and the ability to meet employers during our many workforce fairs while still attending classes. These opportunities provided set students up for success as they begin their journey as the next generation of workforce professionals.

FLEXTECH STAFF



NORA HERNANDEZ, *Program Data Coordinator*

As the Program Data Coordinator for the FLEXTech Program, I was privileged to oversee the transformation of data into powerful stories of student achievement and program success. The positive program outcomes we've witnessed—increased student engagement, collaboration with employers, and the successful placement of many of our students into meaningful careers in IT —are a collective achievement that underscores the relevance of the FLEXTech Program.



BRIANA LEWIS, Employer Outreach Manager

As the FLEXTech Employer Outreach Manager, I have the opportunity to bridge the gap between education and industry helping students gain practical experience while employers find talented individuals. We build partnerships, facilitate opportunities, and contribute to professional growth. I enjoy making a meaningful difference in students' lives while contributing to our developing workforce.



DAMIEN SMITH, Director of Cybersecurity

The FlexTECH program at Collin College is more than just an educational pathway; it's a beacon of support, guiding our students through their cybersecurity journey. From certification reimbursement to career fairs, it provides indispensable resources that are critical for nurturing the next generation of cybersecurity professionals. This program is the cornerstone of our commitment to equipping our students with the skills and opportunities they need to thrive in the dynamic field of cybersecurity.

WOMEN IN CYBERSECURITY (WiCyS)



In spring 2022, FLEXTech student Nghi Nguyen worked with career coach Tara Lewis to start a student chapter of Women in CyberSecurity (WiCyS) at Collin College. Tara had previous experience with the organization and was excited to assist in creating a chapter at Collin. Once established, the student chapter partnered with FLEXTech and employer Mr. Cooper in October 2022 to organize a Career Village event. This event provided mentorship moments from the team at Mr. Cooper through resume reviews, interview practice, and job application and hiring advice. FLEXTech continues to work closely with WiCyS and other student organizations in IT and cybersecurity to promote communication, events and collaboration.

Student Starts Organization to Encourage More Female Students into Cybersecurity Field: https://tinyurl.com/3twc5hyy

NORTH TEXAS INFORMATION SECURITY SYSTEMS ASSOCIATION (NTX ISSA)

FLEXTech received sponsorship from Dell Technologies in 2022 and 2023. This sponsorship enabled FLEXTech to provide professional organization memberships to NTX ISSA and WiCyS. Collin College has partnered with NTX ISSA for several years and hosts the annual regional conference on campus, encouraging students to volunteer and attend. This provides students with the opportunity to learn and network. The student chapter of NTX ISSA went through a refresh in 2021, with FLEXTech leading the collaboration between the organization's campus liaison and faculty.

Collin College Hosts 11th Annual NTXISSA Cybersecurity Conference at Frisco Campus: https://tinyurl.com/2x39cmfw



STUDENT ORGANIZATIONS

Information Systems Audit and Control Association (ISACA)

In fall 2021, FLEXTech connected to the vice president of Academic Partnerships to gather information on upcoming events that would benefit students. They communicated information to faculty regarding ISACA's annual case competition. Collin College entered the competition in spring 2022 for the first time and won first place! FLEXTech and Collin College faculty have continued their partnership with ISACA and garnered a second place award in the 2023 case competition. FLEXTech students have participated in the Business Etiquette Luncheon and information sessions. Most recently, students created a student chapter of ISACA at Collin College.

Collin College Cybersecurity Team Wins First Place in Fifth Annual ISACA Competition: https://tinyurl.com/mr28fhx5

COMPUTER SCIENCE AND ENGINEERING CLUB



FLEXTech participant Debbie Gomez founded the Computer Science and Engineering Club to support students and provide learning opportunities. The PC Donation Project was a vital initiative of the club in 2023. Word of mouth and promotion by FLEXTech staff led to donating over 30 refurbished computers to students in need. FLEXTech promotes the club as a way for students to network, gain experience and contribute to their professional growth.

Debbie Gomez: Empowering Students Through Collaboration and Shared Resources: https://tinyurl.com/3wnn79wf







FLEXTECH RESOURCES



tinyurl.com/FLEXTechResources

COLLIN COLLEGE APPRENTICESHIPS



tinyurl.com/CollinApprenticeships

IT FACTOR RECORDINGS



tinyurl.com/FLEXTechITFactor



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