

# Academic Affairs Committee Meeting Thursday, August 17, 2023 Zoom Webinar

Zoom Webinar | Passcode: 427158

# Agenda

- I. Call to Order
- II. Roll Call
- III. Greeting
- IV. Public Comment
- V. New Business
  - a. Action Items
    - i. ACA-1: Approval of Tenure as a Condition of Employment
    - ii. ACA-2: Approval of the 2022-2023 UWF Institutes & Centers Annual Report
    - iii. ACA-3: Approval of New UWF Reg. 5.070 Linking Industry to Nursing Ed. Fund
    - iv. ACA-4: Approval of New UWF Regulation 2.001 Post-Tenure Review
    - v. ACA-5: Approval of Revised UWF Reg. 3.040 Textbook & Instr. Materials Affordability
    - vi. <u>ACA-6</u>: Approval of the 2023 UWF Textbook & Instr. Materials Affordability Report
  - b. Information Items
    - i. INFO-1: Summary of Degree Program Changes
- V. Other Committee Business

Stephanie White, Chair

Stephanie White, Chair

Stephanie White, Chair

Stephanie White, Chair

Anna Lochas

Anna Lochas

VI. Adjournment

Stephanie White, Chair

# **UWF Board of Trustees Meeting** Academic Affairs Committee

August 17, 2023

Issue/Agenda Recommendation	on: Tenure as a Condition of Employment
Proposed Action:	Approval
Background Information:	
The University of West Florida meeting. Tenure nominations a	Board of Trustees considers all nominations for tenure at its June as a condition of employment will be considered as needed.
The following faculty is to be co	onsidered for tenure:
<b>Dr. Hossain Shahriar</b> , A the Department of Info	ssociate Director for the Center for Cybersecurity; Professor in rmation Technology
Dr. Meng Yu, Chair and	Professor, Department of Cybersecurity
Implementation Plan: D	Dr. Shahriar's appointment begins on August 21, 2023 Dr. Yu's appointment begins on August 8, 2023
Fiscal Implications: N	lone
Supporting documents:	
Dr. Hossain Shahriar Tenure Su Dr. Meng Yu Tenure Support Le	ipport Letter and Curriculum Vitae etter and Curriculum Vitae

Prepared by:	Gary Liguori, Provost and Senior Vice President gliguori@uwf.edu, 850.474.2035
Presented by:	Gary Liguori, Provost and Senior Vice President



#### **MEMORANDUM**

DATE:	July 21, 2023
TO:	Dr. Gary Liguori Provost and Senior Vice President
FROM:	Dr. Dallas H. Snider Chair, UWF Department of Information Technology Dallas Suider 257ACB1691914B1
VIA:	Dr. Jaromy Kuhl Dean, Hal Marcus College of Science and Engineering Jaromy Eulu
	EE88ADE94CD24A8

**SUBJECT:** Tenure for Dr. Hossain Shahriar

Dr. Hossain Shahriar was offered employment at UWF's Center for Cybersecurity with tenure in the Department of Information Technology as a condition to hire. Dr. Shahriar is currently at Kennesaw State University where he was awarded tenure and promoted to associate professor in 2018 and has been promoted to professor effective Fall 2023.

Since his start at Kennesaw State University in 2012, Dr. Shahriar has 25 journal publications, most of which he is the lead author. He also has 79 conference proceedings and 9 book chapters since 2012. This far exceeds the requirements for tenure and promotion in the Department of Information Technology. His teaching experience fits well with our curriculum for both the B.S. and M.S. in Information Technology degree programs, and I look forward to having him teach in my department. Regarding service, Dr. Shahriar has experience in leadership roles as a degree program coordinator and a director of research and graduate education.

Our only tenured faculty member in the Department of Information Technology was asked to review his curriculum vitae and respond with a statement for or against him receiving tenure upon assuming the position at UWF. The faculty member responded in the affirmative for granting tenure to Dr. Shahriar.

Based on the affirmative response stated above, and my examination of Dr. Shahriar's curriculum vitae and interview, I support granting Dr. Hossain Shahriar tenure in the UWF Department of Information Technology.

office 850.474.2098 uwf.edu/informationtech An Equal Opportunity/Equal Access Institution

# **Hossain Shahriar**

Professor of Information Technology<sup>1</sup>, Ph.D. Kennesaw State University, USA

Google Scholar link: https://scholar.google.com/citations?user=NI3 svsAAAAJ&hl=en

# Education

PHD, Queen's University at Kingston, 2012.

Major: Computing Areas of Emphasis: Web application security and mitigation techniques Dissertation Title: Mitigation of Web-based Program Security Vulnerability Exploitations, Supervisor: Dr. Mohammad Zulkernine

MS, Queen's University at Kingston, 2008. Major: Computing and Information Science Dissertation Title: Mutation-based testing of buffer overflows, SQL injections, and format string bugs, Supervisor: Dr. Mohammad Zulkernine

BSc, Bangladesh University of Engineering and Technology, 2003. Major: Computer Science and Engineering

# Academic and Industry Positions (Selected)

Director of Research and Graduate Education, Institute for Cyber Workforce Development, 2020-2023.

Professor, Kennesaw State University, Fall 2023-current; Associate Professor, Kennesaw State University, Fall 2018- Summer 2023; BSIT/BASIT Coordinator, Kennesaw State University, Spring2019- Spring2022. Assistant Professor, Kennesaw State University, Fall2012- Summer2018; Postdoctoral Research Fellow, Queen's University, 2012. Graduate Research and Teaching Assistant, 2006- 2011. Information Analyst, ACI Ltd., Dhaka, 2003- 2006. Junior Software Developer, SDSL Ltd., Dhaka, 2001- 2002.

# Awards and Honors (Selected)

Outstanding Research and Creative Activity Award, <u>Kennesaw State University</u>, April 2022. Best/Special Paper Awards at <u>IEEE ICDH 2021</u>, EDSIGCON 2020, and <u>IEEE DASC 2011</u>. Outstanding Early Career Faculty Award, <u>Kennesaw State University Foundation</u>. (April 2019). Distinguished Reviewer, Journal of Software: Practice and Experience. (March 2019). <u>NSERC Postdoctoral Fellowship</u>, Natural Sciences and Engineering Research Council of

Canada. (July 2012- June 2014). Declined to pursue Tenure track position. <u>Ph.D. Research Achievement Award</u>, School of Computing, Queen's University, 2011. <u>NSERC Post Graduate Scholarship for Doctoral Study</u>, Natural Sciences and Engineering

Research Council of Canada. (2010-2011) Walter C. Sumner Fellowship, Queen's University, 2011. IEEE Kingston Section Award for M.Sc. Thesis Research, 2008. Dean's List, BUET, 1997-2002. Merit Scholarship, BUET, 1997-2002.

<sup>&</sup>lt;sup>1</sup> Effective Fall 2023.

# **Teaching Experience**

Kennesaw State University (2012-2023) CYBR 7200, Securing Enterprise Infrastructure, 2 courses. CYBR 7910, Capstone in Cybersecurity Practicum, 3 courses. DS 9900, Dissertation Research, 3 courses. HMI 7560, EHR Systems & Applications, 1 course. HMI 7570, Clinical Processes & Workflows, 2 courses. IT 4533, Health Inf Sec & Privacy, 4 courses. IT 4723, IT Policy & Law, 6 courses. IT 4843, Ethical Hacking Defense, 7 courses. IT 5423, Computer Networks Systems Administration, 7 courses. IT 5433, Databases: Design & Applications, 2 courses. IT 6203, IT Design Studio, 5 courses. IT 6513, Elec Health Record Systems & Applications, 4 courses. IT 6523, IT Clinical Healthcare Workflow, 4 courses. IT 6533, Health Info Security & Privacy, 6 courses. IT 6733, Database Administration, 2 courses. IT 6823, Info. Security Concepts Admin, 1 course. IT 6843, Ethical Hacking: Networking Security, 20 courses. IT 6903, Flow Analysis for Android App, 2 courses. IT 7343, Ethical Hacking: Networking Security, 2 courses. IT 7523, Clinical Process & Workflow, 1 course. IT 7993, IT Capstone, 1 course. IT 7999, Thesis, 3 courses. CS 2301, Programming Principles I, 3 courses. CS 2302, Programming Principles II, 3 courses. CS 3304, Data Structures, 1 course. CS 3310, Database Systems, 1 course. CS 3550, Theory of Networking & Security, 3 courses. CS 4400, Dev Malware App Mobile Devices, 1 course. CS 4491, Theory Networking & Security, 1 course. CS 4550, Secure Software Development, 2 courses.

# CS 6040, Computer Security, 3 courses.

#### Queen's University (2011)

CISC 101, Python Programming, 1 course

# **Research Areas**

- Mobile health (mhealth) and Device Security and Privacy
- Machine learning in cybersecurity and Health Informatics
- Malware and Ransomware Analysis
- Blockchain-based Secured Electronic Health Record
- Static and Dynamic Program Analysis
- Web and mobile application security
- Pedagogical approach in cyber education

# **Published Intellectual Contributions**

#### Book, Chapter in Scholarly Book

- Barsha, F., Shahriar, H. (2023). Mitigation of Malware Using Artificial Intelligence Techniques, Security Engineering for Embedded and Cyber-Physical Systems, CRC Press, Maleh, Y. (Eds).,pp. 221-234.
- 2. Faruk, JH., **Shahriar, H.**, Masum, M., Alom, K., Malware and Ransomware Classification, Detection and Prevention using Artificial Intelligence Techniques, *Big Data Analytics and*

*Intelligent Systems for Cyber Threat Intelligence*, River Publishers, Maleh, Y. (Eds)., 15 pages. (to appear)

- Progga, F. T., Shahriar, H. M., Zhang, C., Valero, M. A. (2021). Securing Vehicular Network using AI and Blockchain-based Approaches. *AI in blockchain and Cybersecurity* (pp. 31-44). Springer.
- Riad, A. B. M. K., Shahriar, H., Zhang, C., Barsha, F. (2021). Heath Device Security and Privacy: A Comparative Analysis of Fitbit, Jawbone, Google Glass and Samsung Galaxy Watch. In Ahmed A. Elngar, Ambika Pawar, Prathamesh Churi (Ed.), *Data Protection and Privacy in Healthcare: Research and Innovations*. Taylor and Francis: Taylor & Francis.
- Shahriar, H. M., Zhang, C., Islam, A., Islam, S. (2020). Mobile Application Security Using Static and Dynamic Analysis. In Yassine Maleh, Mohammad Shojafar, Mamoun Alazab, Youssef Baddi (Ed.), *Machine Intelligence and Big Data Analytics For Cybersecurity Applications* (pp. 443-459). Springer: Springer. <u>https://link.springer.com/book/10.1007/978-3-030-57024-8</u>
- Shahriar, H. M., Nimmagadda, S. (2020). Network Instruction Detection for TCP/IP Packets with Machine Learning Techniques. In Maleh, Y., Shojafar, M., Alazab, M., Baddi, Y. (Eds.) (Ed.), Machine Intelligence and Big Data Analytics for Cybersecurity Applications (pp. 231-247). Springer: Springer. <u>https://link.springer.com/book/10.1007/978-3-030-57024-8</u>
- Shahriar, H., Etienne, L. (2020). Presentation Attack Detection Framework. In Maleh, Y., Shojafar, M., Alazab, M., Baddi, Y. (Eds.) (Ed.), *Data Analytics for Cybersecurity Applications* (pp. 297-311). Springer. https://www.springer.com/gp/book/9783030570231
- Talukder, A., Shahriar, H., M. (2019). Point-of-Sale Device Attacks and Mitigation Approaches for Cyber-Physical Systems. *Cybersecurity and Privacy in Cyber Physical Systems* (pp. 368-383). CRC Press.
- 9. Qu, F., Haddad, H. M., **Shahriar, H. M.** (2019). Application of Blockchain and Smart Contract: Approaches and Challenges. In Kuan-Ching Li, Xiaofeng Chen, Hai Jiang, and Elisa Bertino (Ed.), *Book Titled: Essentials of Blockchain Technology* (pp. 121-140). CRC Press.

# Journal Article, Academic Journal

- 1. N. Sakib, H. Shahriar, Unraveling a Blockchain-based Framework towards Patient Empowerment: A Scoping Review Envisioning Future Smart Health Technologies, Smart Health Journal, Elsevier, 2023 (to appear).
- 2. Md Raihan Mia, **Hossain Shahriar**, Maria Valero, Nazmus Sakib, Bilash Saha, Md Abdul Barek, Md Jobair Faruk, Ben Goodman, Rumi Khan, Sheikh Ahamed, A comparative Study of HIPAA technical safeguards assessment of Android mhealth applications, *Smart Health Journal*, Elsevier, 2022. **Impact Factor: 2.7.**
- Mohammad Masum, MA Masud, Muhaiminul Islam Adnan, Hossain Shahriar, Sangil Kim, Comparative study of a mathematical epidemic model, statistical modeling, and deep learning for COVID-19 forecasting and management, *Socio-Economic Planning Sciences*, Elsevier, 2022, pp. 101249; Impact Factor: 4.9 (https://doi.org/10.1016/j.seps.2022.101249)
- 4. **Shahriar, H.**, Sneha, S., Whitley, P. (2022). Approaches and Challenges To Secure Health Data. *To appear in International Journal of Medical Engineering and Informatics*, 15, https://www.inderscience.com/jhome.php?jcode=ijmei
- Sneha, S., Thalla, S., Rischie, I., Shahriar, H. M. (2021). Health Internet Technology for Chronic Conditions: Review of Diabetes Management Apps. *JMIR Diabetes, 6*(3), 1-9, Impact Factor: 5.43, https://diabetes.jmir.org/2021/3/e17431/
- Islam, A. K., Islam, S., Shahriar, H. M., Zhang, C., Valero, M. A., Sneha, S. (2021). Pluginbased Tool for Teaching Secure Mobile Application Development. *Information Systems Education Journal, 19*(2), 25-34, <u>https://eric.ed.gov/?id=EJ1297704</u>, Invited article from EDSIG 2020.
- Shahriar, H. M., Haddad, H., Farhadi, M. (2021). Assessing HIPAA Compliance of Open Source Electronic Health Record Applications. *International Journal of Information Security and Privacy*, 15(2), 181-195.
- Chevalliru, B., Carter, G., Shahriar, H. M., Sneha, S. (2020). OpenPharma Blockchain on Fhir: An Interoperable Solution for Read-Only Health Records Exchange through Blockchain and Biometrics. *Blockchain in Healthcare Today*, Vol. 3, https://blockchainhealthcaretoday.com/index.php/journal/article/view/120/179
- 9. Shahriar, H. M., Zhang, C., Dunn, S., Bronte, R., Shalan, A., Tarmissi, K. (2019). Mobile anti-

phishing: Approaches and challenges. *Information Security Journal: A Global Perspective*, Taylor & Francis, pp. 1-16.

- Carter, G., White, D., Nalla, A., Sneha, S., Shahriar, H. M. (2019). Toward Application of Blockchain for Improved Health Records Management and Patient Care. *Blockchain in Healthcare Today, February, 2019*, 1-12.
- Shahriar, H. M., Haddad, H. (2017). Security Vulnerabilities of NoSQL and SQL Databases for MOOC Applications. *International Journal for Digital Society*, 8(1), 1244-1250, Impact Factor: 3.768, infonomics-society.org/ijds/
- Shahriar, H. M., Klintic, T., Clincy, V. A. (2015). Mobile Phishing Attacks and Mitigation Techniques. *Journal of Information Security*, 6(3), 206-212, Impact factor: 3.24, file.scirp.org/Html/5-7800290 57634.htm
- **13.** Shahriar, H. M., Haddad, H., Lebron, D., Lupu, R. (2016). Survey of Vulnerabilities and Mitigation Techniques for MOOC-Based Applications. *International Journal of Secure Software Engineering (IJSSE), 7*(4), 1-14, <u>www.igi-global.com/journal/international-journal-secure-software-engineering/1159</u>
- Shahriar, H. M., Haddad, H. (2016). Fuzzy Rule-Based Vulnerability Assessment Framework for Web Applications. *International Journal of Secure Software Engineering (IJSSE), 7*(2), 1-18, <u>www.igi-global.com/article/fuzzy-rule-based-vulnerability-assessment-framework-for-web-applications/152244</u>
- Shahriar, H. M., Haddad, H., Devendran, V. (2015). Request and Response Analysis Framework for Mitigating Clickjacking Attacks. *International Journal of Secure Software Engineering (IJSSE), 6*(3), 1-25, <u>www.igi-global.com/article/request-and-response-analysis-</u> <u>framework-for-mitigating-clickjacking-attacks/136450</u>
- Shahriar, H. M., Weldermariam, K., Zulkernine, M., Lutullier, T. (2014). Effective Detection of Vulnerable and Malicious Browser Extensions. *Computers & Security*, 47, 66-84, Impact Factor: 4.438.
- **17. Shahriar, H. M.**, North, S. M., Chen, W.-C., Mawangi, E. (2014). Information Theoretic XSS Attack Detection in Web Applications. *International Journal of Secure Software Engineering (IJSSE), 5*(3), 1-15, <u>www.igi-global.com/article/information-theoretic-xss-attack-detection-in-web- applications/118145</u>
- Cooper, V., Haddad, H., Shahriar, H. M. (2014). Android Malware Detection Using Kullback-Leibler Divergence. Advances in Distributed Computing and Artificial Intelligence Journal, 3(2), 17-25, <u>https://doi.org/10.14201/ADCAIJ2014321725</u>
- **19. Shahriar, H. M.**, Devendran, V. (2014). Classification of Clickjacking Attacks and Detection Techniques. *Information Security Journal: A Global Perspective, 23*(4-6), 137-147, www.tandfonline.com/toc/uiss20
- 20. Shahriar, H. M., Clincy, V. A. (2014). Risk Assessment of Network Distributed Android Applications. International Journal of Intelligent Computing Research (IJICR), 5(3), 472-480, Impact Factor: 6.62, <u>http://infonomics-society.ie/wp-content/uploads/ijicr/published-papers/volume-5-2014/Risk-Assessment-of-Network-Distributed-Android-Applications.pdf</u>
- Shahriar, H. M., North, S. M., Chen, W.-C., Mawangi, E. (2014). Information Theoretic XSS attack Detection in Web Applications. *To appear in International Journal of Secure Software Engineering (IJSSE), IGI Global, 5*(3), <u>http://www.igi-global.com/journal/international-journal-secure-software-engineering/1159</u>
- 22. Shahriar, H. M., North, S., Chen, W.-C. (2013). Early Detection of SQL Injection Attacks. International Journal of Network Security & Its Applications (IJNSA), 5(4), 13, Acceptance Rate: 20%, airccse.org/journal/nsa/5413nsa04.pdf
- Shahriar, H. M., Haddad, H., Vaidya, I. (2013). In S. Shin (Ed.), Buffer Overflow Patching for C and C++ Programs: Rule-Based Approach, Vol. 13, pp. 8-19). ACM New York, NY: ACM SIGAPP Applied Computing Review. dl.acm.org/citation.cfm?id=2505421
- 24. **Shahriar, H. M.**, Zulkernine, M. (2012). Trustworthiness Testing of Phishing Websites: A Behavior Model-based Approach. *Future Generation Computer Systems, Special Issue on Trusting Software Behavior, 28*(8), 1258-1271, **Impact Factor: 7.18**
- **25.** Shahriar, H. M., Zulkernine, M. (2012). Mitigating Program Security Vulnerabilities: Approaches and Challenges. *ACM Computing Surveys*, *44*(3), 1-46, Impact Factor: 10.28, csur.acm.org
- 26. Shahriar, H. M., Zulkernine, M. (2011). Taxonomy and Classification of Automatic Monitoring of

Program Security Vulnerability Exploitations. Journal of Systems and Software, *Elsevier, 84*(2), 250-269, **Impact Factor**: 2.829

- Shahriar, H. M., Zulkernine, M. (2010). Monitoring Buffer Overflow Vulnerabilities: A Perennial Problem. *International Journal of Secure Software Engineering (IJSSE)*, 1(3), 18-40, www.igiglobal.com/journal/international-journal-secure-software-engineering/1159
- Shahriar, H. M., Zulkernine, M. (2010). Assessing Test Suites For Buffer Overflow Vulnerabilities. International Journal of Software Engineering and Knowledge Engineering, In special Issue on Security Engineering Practices & Methodology based on Software & Knowledge Engineering, 20(1), 73-101, Impact Factor:1.47, <u>https://doi.org/10.1142/S0218194010004621</u>

#### **Conference Proceeding**

- M. Akter, H. Shahriar, J. Cardenas, S. Ahamed and A. Cuzzocrea, Feature Engineering Based Detection of Buffer Overflow Vulnerability in Source Code Using Deep Neural Networks, Proc. of IEEE Computer, Software and Application Conference, 2023, Turin, Italy, 10 pp. (to appear), Acceptance rate 27%
- M. Akter, H. Shahriar, S. Ahamed, K. Gupta, M. Rahman, A. Mohamed, M. Rahman, A. Rahman and F. Wu, Case Study-Based Approach of Quantum Machine Learning in Cybersecurity: Quantum Support Vector Machine for Malware Classification and Protection, Proc. of IEEE Computer, Software and Application Conference, 2023, Turin, Italy, 6pp. (to appear).
- 3. M. Akter, **H Shahriar**, ZA Bhuiya, Automated Vulnerability Detection in Source Code Using Quantum Natural Language Processing, Second International Conference on Ubiquitous Security, Zhangjiajie, China, 2022, pp. 83-102, Springer Nature.
- M. Faruk, H. Pournaghshband, H. Shahriar, AI-Oriented Software Engineering (AIOSE): Challenges, Opportunities, and New Directions, Proc. of International Conference on Software Process Improvement, 2022, pp. 3-19.
- M. Akter, M. Faruk, N. Anjum, M. Masum, H. Shahriar, M. Valero, N. Sakib, A. Rahman, F. Wu, A. Cuzzocrea, Software Supply Chain Vulnerabilities Detection in Source Code: Performance Comparison between Traditional and Quantum Machine Learning Algorithms, IEEE Big Data 2022, Osaka, Japan, pp. 5639-5645.
- 6. MD Jobair Hossain Faruk, **Hossain Shahriar**, Kai Qian, Dan Lo, Michael Whitman, Alfredo Cuzzocrea, and Fan Wu, Authentic Learning of Machine Learning in Cybersecurity with Portable Hands-on Labware: Neural Network Algorithms for Network Denial of Service (DOS) Detection, IEEE Big Data 2022, Osaka, Japan, 6 pages
- 7. Farzana Bhuiyan, Stacy Prowell, **Hossain Shahriar**, Fan Wu and Akond Rahman, Shifting Left for Machine Learning: An Empirical Study of Security Weaknesses in Supervised Learningbased Projects, IEEE Computers, Software, and Applications Conference, 2022. (to appear) (Acceptance rate 23%)
- Mohammad Masum, Mohammd Nazim, Md Jobair Hossain Faruk, Hossain Shahriar, Maria Valero, Md Abdullah Hafiz Khan, Gias Uddin, Shabir Barzanjeh, Erhan Saglamyrek, Akond Rahman, Sheikh Ahamed, Quantum Machine Learning for Software Supply Chain Security: How Far Can We Go?, IEEE Computers, Software and Application Conference, 2022. (to appear) (Acceptance rate 23%)
- Paramita Upama, Md Jobair Hossain Faruk, Mohammd Nazim, Mohammad Masum, Hossain Shahriar, Hossain Shahriar Maria Valero, Gias Uddin, Shabir Barzanjeh, Akond Rahman, Sheikh Ahamed, Evolution of Quantum Computing: A Systematic Survey on the Use of Quantum Computing Tools, IEEE Computers, Software and Application Conference, 2022. (to appear) (Acceptance rate 23%)
- Masum, M., Faruk, MJH, Shahriar, H., Qian, K., Lo, D., Adnan, M. (2022). Ransomware Classification and Detection With Machine Learning Algorithms, Proc. 12<sup>th</sup> IEEE Annual Computing and Communication Workshop and Conference, pp. 316-322.
- Masum, M., Shahriar, H. M., Haddad, H., Hossain Faruk, M. J., Valero, M. A., Khan, M. A. A. H., Rahman, Adnan, M., Cuzzocrea, A., Wu, F. (2021). *Bayesian Hyperparameter Optimization for Deep Neural Network-Based Network Intrusion Detection* (pp. 7). IEEE Big Data 2021. Acceptance rate 18%.

- Hossain Faruk, M. J., Shahriar, H. M., Valero, M. A., Barsha, F., Sobhan, S., Khan, M. A. A. H., Whitman, M., Cuzzocrea, A., Lo, D. C.-T., Rahman, A., Wu, F. (2021). *Malware Detection and Prevention using Artificial Intelligence Techniques* (pp. 9). IEEE Big Data 2021. Acceptance rate 18%.
- Masum, M., Shahriar, H. M., Haddad, H., Song, W. (2021). A Statistical Summary Analysis of Window-Based Extracted Features for EEG Signal Classification. IEEE International Conference on Digital Health, Acceptance rate: 20%.
- Hossain Faruk, M. J., Shahriar, H. M., Valero, M., Sneha, S., Ahamed, S., Rahman, M. (2021). Towards Blockchain-Based Secure Data Management for Remote Patient Monitoring (pp. 299-308). IEEE International Conference on Digital Health, Acceptance rate: 20%.
- Riad, A. B. M. K., Islam, M. S., Shahriar, H., Zhang, C., Valero, M. A., Sneha, S., Ahamed, S. (2020). *Plugin-based Tool for Teaching Secure Mobile Application Development* (pp. 10). Proc. of EDSIG Conference. <u>http://edsigcon.org/</u>, Best Paper Award.
- Masum, M., Shahriar, H. M., Haddad, H. M. (2020). Epileptic Seizure Detection for Imbalanced Datasets Using an Integrated Machine Learning Approach (pp. 5416-5419). In 42<sup>nd</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society. Acceptance rate 12%
- Masum, M., Shahriar, H., Haddad, H. M. (2020). Analysis of Sampling Techniques Towards Epileptic Seizure Detection from Imbalanced Dataset (pp. 684-692). IEEE Computer Society: Proc. of 44th IEEE Computer Society Signature Conference on Computers, Software and Applications. Acceptance rate 24%
- Hogges, J., Shahriar, H., Sneha, S., Ahamed, S. (2020). A Two-Step Password Authentication System for Alzheimer Patients (pp. 1444-1448). IEEE computer Society: Proc. of 44th IEEE Computer Society Signature Conference on Computers, Software and Applications.
- Etienne, L., Shahriar, H. M. (2020). Attacks and Mitigation Techniques for Iris-based Authentication Systems (pp. 1101-1102). IEEE Computer Society: Proc. of 44th IEEE Computer Society Signature Conference on Computers, Software and Applications.
- Shahriar, H. M., Qian, K., Shalan, A., Wu, F. (2020). Enhancing Proactive Control Mobile and Web Software Security Education with Hands-on Labware (pp. 1095-1096). IEEE Computer Society: Proc. of 44th IEEE Computer Society Signature Conference on Computers, Software and Applications.
- Gomez, A., Shahriar, H. M., Clincy, V. A., Shalan, A. (2020). Hands-on Lab on Smart City Vulnerability Exploitation (pp. 1777-1782). Proc. of 44th IEEE Computer Society Signature Conference on Computers, Software and Applications: Proc. of 44th IEEE Computer Society Signature Conference on Computers, Software and Applications
- Talukder, A., Shahriar, H. M., Qian, K., Rahman, M., Ahamed, S., Wu, F., Agu, E. (2019). DroidPatrol: A Static Analysis Plugin For Secure Mobile Software Development (pp. 565-569). IEEE: 2019 IEEE 43rd Annual Computer Software and Applications Conference (COMPSAC).
- Masum, M., Shahriar, H., Haddad, H. M. (2020). Analysis of Sampling Techniques Towards Epileptic Seizure Detection from Imbalanced Dataset (pp. 684-692). IEEE Computer Society: Proc. of 44th IEEE Computer Society Signature Conference on Computers, Software and Applications. https://ieeexplore.ieee.org/document/9202532
- 24. Datta, A., Rahman, M., **Shahriar, H.** (2020). *WTC2: Impact-Aware Threat Analysis for Water Treatment Centers* (pp. 473-482). IEEE Computer Society: Proc. of 44th IEEE Computer Society Signature Conference on Computers, Software and Applications.
- 25. Li, Z., Zhang, H., Masum, M., **Shahriar, H.**, Haddad, H. M. (2020). *Cyber Fraud Prediction with Supervised Machine Learning Techniques* (pp. 176-180). ACM: ACM Southeast Conference. http://hadiz.myweb.usf.edu/ACMSE/index.html
- 26. **Shahriar, H.**, Whitman, M., Lo, D. C.-T., Wu, F., Thomas, C. (2020). *Case Study-based Portable Hands-on Labware for Machine Learning in Cybersecurity* (pp. 1). ACM: Proc. of 51st ACM Technical Symposium on Computer Science Education (SIGCSE).
- Lo, D. C.-T., Qian, K., Shahriar, H. M., Wu, F., Chern, J.-C., Paschos, P., Ng, C. (2020). Information Assurance and Security Education on Undergraduate Computing Degree Programs. The 51st ACM Technical Symposium on Computer Science Education (ACM SIGCSE 2020).
- 28. **Shahriar, H. M.**, Whitman, M., Lo, D. C.-T., Wu, F., Thomas, C., Cuzzocrea, A. (2019). *Experiential Learning: Case Study-based Portable Hands-on Regression Labware for Cyber Fraud Prediction* (pp. 5). IEEE: IEEE Big Data 2019 PSBD Workshop.

- 29. Masum, M., **Shahriar, H.** (2019). *Droid-NNet: Deep Learning Neural Network for Android Malware Detection* (pp. 5). IEEE: IEEE Big Data.
- Shahriar, H. M., Zhang, C. (2019). Design and Development of Hands-on EHR Usability Analysis through Open Source Tools and Free Resources. Proceedings of the EDSIG Conference. http://proc.iscap.info/2019/pdf/4967.pdf
- Zhang, C., Shahriar, H. M. (2019). Redeveloping Electronic Health Records Course with Open Source Tools and Platforms. Proceedings of the 20th Annual SIG Conference on Information Technology Education.
- 32. **Shahriar, H. M.**, Talukder, A., Islam, S. (2019). *An Exploratory Analysis of Mobile Security Tools* (pp. 16). Conference on Cybersecurity Education, Research and Practice.
- 33. **Shahriar, H. M.**, Islam, K., Talukder, A., Zhang, H., Li, Z. (2019). *Automatic Security Bug Detection with FindSecurityBugs Plugin* (pp. 11). Conference on Cybersecurity Education, Research and Practice.
- 34. Clincy, V. A., **Shahriar, H.** (2019). *Blockchain Development Platform Comparison* (pp. 922-923). 2019 IEEE 43rd Annual Computer Software and Applications Conference (COMPSAC).
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- 72. **Shahriar, H. M.**, North, S., Chen, W., Mawangi, E. (2013). *Design and Development of Anti-XSS Proxy* (pp. pp. 489-494). London, UK: Proc. of the 8th IEEE International Conference for Internet Technology and Secured Transactions (ICITST-2013). www.icitst.org/
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# Presentations/Panel/Tutorial/Seminar (Selected)

- Rutherfoord, R., Li, L., **Shahriar, H. M.**, Rutherfoord, J., Proceedings of the 22<sup>nd</sup> Annual Conference on Information Technology Education (SIGITE 2021), "We Did It! So Can You! Creating a "No-Textbook" IT Degree," ACM, Virtual. (October 2021). **Panel Talk**.
- Shahriar, H. M., 2021 IEEE International Conference on Digital Health (ICDH), "Analyzing Security and Privacy Concerns of Contact Tracing Applications," IEEE, Virtual. (September 2021). Presentation.
- Shahriar, H. (Presenter & Author), Riad, A. K. (Presenter & Author), Islam, S. (Presenter & Author), EDSIG Conference on Computing Education 2020, "Plugin-based Tool for Teaching Secure Mobile Application Development," Virtual. (November 2020). Presentation.
- Shahriar, H. (Presenter & Author), IT Faculty Research Seminar Series, "Security and Privacy in Open Source EHR Applications," Virtual. (March 23, 2020). Seminar.
- Shahriar, H. M. (Presenter Only), Talukder, M. A. (Presenter Only), The 29th IEEE International Symposium on Software Reliability Engineering (ISSRE 2018), "Towards Development of Secure Mobile Software," Memphis. (October 18, 2018). Invited Tutorial.
- Shahriar, H. M. (Presenter Only), Talukder, M. A. (Presenter Only), "Analysis of Android Malware and Secure App Development," UITS, Kennesaw State University. (October 3, 2018). Seminar.
- Shahriar, H. M. (Presenter & Author), The 30th ACM/SIGAPP Symposium On Applied Computing, "Security of Web Applications and Browsers: Challenges and Solutions," ACM SAC, Salamanca, Spain. (April 13, 2015). Invited Tutorial Talk.
- Shahriar, H. M. (Presenter & Author), UPS Seminar, "Secure and Reliable Android Applications: Challenges and Approaches," William Patterson University of New Jersey, Wayne, NJ.

(March 26, 2015). Invited Seminar Talk.

Shahriar, H. M. (Presenter Only), AITP Seminar, "Secure and Reliable Android Applications: Challenges and Approaches," IT Department, Marietta Campus. (March 11, 2015).

#### Sponsored Grant Projects (Selected)

- Shahriar, H. M. (Principal), Sakib, N. (Co-Principal), Whitman, M. (Co-Principal), Mattord, H (Co-Principal), Sponsored Research, "NKAT-VI; A Virtual Institute for Cyber Research and Experiential Education ", Griffiss Institute, DoD/Air Force, with North Carolina A&T, Auburn University, Tuskegee University. Total Budget: \$1.5M, KSU Budget: \$375,000, Recommended for Funding by PD. (Aug 2023- July 2025).
- Shahriar, H. (Principal), Whitman, M. (Co-Principal), Mattord, H. (Co-Principal), Plachkinova, M. (Co-Principal), Valero, M. (Co-Principal), Li, L. (Co-Principal), Pouriyeh, S. (Co-Principal), Zhao, L. (Co-Principal), "Cybersecurity Basic Concept and Cyber Career Pathways: KSU GenCyber School Camp 2022-2024" Sponsored by National Security Agency, Federal, \$147,150.00, Funded. (June 2022 June 2024).
- Shahriar, H. (Principal), Whitman, M. (Co-Principal), Mattord, H. (Co-Principal), Valero, M. (Co-Principal), Khan, M. (Co-Principal), Sponsored Research, "Collaborative Research: SaTC: EDU: Authentic Learning Modules for DevOps Security Education ", National Science Foundation, Federal, \$125,880.00, Funded. (May 2022– June 2025). NSF Award page link.
- Shahriar, H. (Principal), Whitman, M. (Co-Principal), Lo, D. (Co-Principal), Sponsored Research, "Collaborative Research: SaTC: EDU: Authentic Learning of Machine Learning in Cybersecurity with Portable Hands-on Labware", National Science Foundation, Federal, \$279,844.00, Funded. (Sept 1, 2021 Aug 31, 2024). NSF Award page link.
- Shahriar, H. (Principal), Whitman, M. (Co-Principal), Mattord, H. (Co-Principal), Grant, "DoD CySP Scholarship Program (Recruitment): Kennesaw State University", Sponsored by Department of Defense, Federal, \$85,100.00, Funded. (Aug 2022 – Nov 2023).
- Shahriar, H. (Principal), Whitman, M. (Co-Principal), Mattord, H. (Co-Principal), Grant, "DoD CySP Scholarship Program (Recruitment): Kennesaw State University", Sponsored by Department of Defense, Federal, \$55,292.00, Funded. (Aug 2021 – Nov 2023).
- Shahriar, H. M. (Principal), Sneha, S. (Co-Principal), Valero, M. A. (Co-Principal), Zhang, C. (Co-Principal), Sponsored Research, "A Framework for mHealth App Security and Privacy Analysis", National Institute of Health, Phase I, Federal, Award KSU portion, \$103,391.00, Funded. (September 14, 2021 August 2023). NIH Award page link
- Ahamed, S. (Principal), Shahriar, H. (Co-Principal), Valero, M. A. (Co-Principal), "Supporting Student Participation and Distinguished Speakers in the Biomedical Engineering Research Community for IEEE International Conference on Digital Health 2021", Sponsored by National Science Foundation, Federal, \$16,000, Recommended for Funding. (April 2023).
- Ahamed, S. (Principal), Shahriar, H. M. (Co-Principal), Valero, M. A. (Co-Principal), Sponsored Research, "Supporting Student Participation and Distinguished Speakers in the Biomedical Engineering Research Community for IEEE International Conference on Digital Health 2021", Sponsored by National Science Foundation, Federal, \$12,968, Funded. (October 1, 2021 -September 30, 2022), NSF Award page link
- Shahriar, H. (Principal), Sponsored Research, "Collaborative Research: Broadening Secure Mobile Software Development (SMSD) Through Curriculum and Faculty Development", Sponsored by National Science Foundation, Federal, \$169,496.00, Funded. (August 15, 2017 - July 31, 2022). <u>NSF Award page link</u>.
- Shahriar, H. (Principal), Whitman, M. (Co-Principal), Mattord, H. (Co-Principal), Grant, "DoD CySP Scholarship Program (Recruitment): Kennesaw State University", Sponsored by Department of Defense, Federal, \$85,400.00, Funded. (Aug 2022 – Nov 2023).
- Shahriar, H. (Principal), Whitman, M. (Co-Principal), Mattord, H. (Co-Principal), Grant, "DoD CySP Scholarship Program (Recruitment): Kennesaw State University", Sponsored by

Department of Defense, Federal, \$55,292.00, Funded. (Aug 2021 – Nov 2022).

- Shahriar, H. M. (Principal), Xie, Y. (Co-Principal), Valero, M. (Co-Principal), Zhang, C. (Co-Principal), Privitera, D. (Co-Principal), Grant, "ALG R21 Continuous Improvement Grant of BSIT", Sponsored by USG Affordable Learning Georgia, State, \$10,000.00, Funded. (March 2022 December 2023).
- Shahriar, H. M. (Principal), Halstead-Nussloch, R. (Co-Principal), Privitera, D. (Co-Principal), Forsyth, W. (Co-Principal), Jamison, J. (Co-Principal), Grant, "ALG R20 Continuous Improvement Grant of BSIT", Sponsored by USG Affordable Learning Georgia, State, \$10,000.00, Funded. (December 2021 - December 2022).
- Shahriar, H. M. (Principal), Valero, M. A. (Co-Principal), Zhao, L. (Co-Principal), Pouriyeh, S. (Co-Principal), Tian, S. (Co-Principal), Grant, "ALG Round 19 MSIT Course Revision", Sponsored by Board of Regents of the University System of Georgia (BOR), State, \$10,000.00, Funded. (March 19, 2021 August 15, 2022).
- Shahriar, H. M. (Principal), Li, L. (Co-Principal), Pouriyeh, S. (Co-Principal), Tian, S. (Co-Principal), Zhang, C. (Co-Principal), Grant, "Large Scale No-Cost Textbook Resources Towards Zero Cost MSIT Degree Program", Sponsored by USG Affordable Learning Georgia, \$30,000.00, Funded. (October 1, 2019 - December 15, 2020).
- Li, L. (Principal), Halstead-Nussloch, R. (Co-Principal), Xie, Y. (Co-Principal), Shahriar, H. M. (Co-Principal), Han, M. (Co-Principal), Grant, "Developing a more affordable Masters Science in Information Technology (MSIT) Program Using No-Cost-to-Student Learning Material", Sponsored by Affordable Learning Georgia, \$30,000.00, Funded. (January 2019 May 2020).
- Rutherfoord, R. (Principal), Shahriar, H. M. (Co-Principal), VandeVen, S. H. (Co-Principal), Li, Z. (Co-Principal), Han, M. (Co-Principal), Zheng, G. (Co-Principal), Grant, "Large Scale No-Cost Textbook Resources Towards Zero Cost BSIT Degree Program", Sponsored by Affordable Learning Georgia- USG, Kennesaw State University, \$30,000.00, Funded. (October 2019 December 2020).
- Shahriar, H. M. (Co-Principal), Rutherfoord, R. (Principal), VandeVen, S. H. (Co-Principal), Zheng, G. (Co-Principal), Tian, S. (Co-Principal), Grant, "Developing More Affordable Undergraduate IT Programs (BSIT/BASIT) Using No-Cost Resources", Sponsored by Affordable Learning Georgia (USG), \$30,000.00, Funded. (January 2019 - April 2020).
- Shahriar, H. (Principal), Grant, "Ethical Hacking Revision", Sponsored by Affordable Learning Georgia (USG), \$2,444.00, Funded. (October 3, 2018 December 11, 2019).
- Shahriar, H. (Co-Principal), Zhang, C. (Principal), Grant, "HIT- IT3503/IT6503 Revision", Sponsored by Affordable Learning Georgia (USG), \$4,800.00, Funded. (October 3, 2018 -December 11, 2019).

#### Fellowship/Internal Grants (Selected)

- Shahriar, H. M. (PI), Abdullah Hafiz Khan (Co-PI), Summer Research Fellowship, "Quantum Machine Learning-based Software Security Vulnerability Detection", Suntrust Faculty Fellow Grant, Institute for Cyber Workforce Development, Kennesaw State University, \$7,500, Funded. (April 2022 May 2023).
- Shahriar, H. M., Summer Research Fellowship, "Empirical Analysis of Security Vulnerabilities in Robotics System", Sponsored by Institute for Cyber Workforce Development, Kennesaw State University, \$3,500, Funded. (April 2021 – August 2021).
- Shahriar, H. M., Zhang, C., Fellowship, "Building Secure Software Through Data Leakage Analysis Plugins", Sponsored by Institute for Cyber Workforce Development and SunTrust (Truist) Bank, Kennesaw State University, \$8,996.00, Funded. (June 2020 – April 2021).
- Li, L., Han, M., Xie, Y., Shahriar, H. M., Xu, X., Lo, D. C.-T., Kim, D.-H., Son, J., Huang, Y., Grant, "Research Pillars for Cybersecurity", Sponsored by CCSE, Kennesaw State University, \$81,319.00, Funded. (December 1, 2019 - April 2020).
- Shahriar, H. (Principal), Qian, K. (Co-Principal), Grant, "Mobile Software Security Assurance with Static and Dynamic Analysis", Sponsored by Office of Research, Kennesaw State University, \$12,544.00, Funded. (July 1, 2018 - June 30, 2019).

# **Thesis Supervision (Selected)**

Mst Akter (PhD CS), Direction Around Quantum Machine Learning to solve Cybersecurity and Health Informatics Problems, Fall 2022- Current

- **Bilash Saha (MSIT),** A Comparative Analysis of the Adherence of mHealth Applications to HIPAA Technical Safeguards, Fall 2023- Spring 2023.
- Md Jobair Hossain Faruk (MSSWE), Blockchain-based Secure Health Data Repository Software Development, January 2022 – December 2022. (Runner up, <u>CCSE C-Day Poster</u>, Fall 2021).
   Jinyoun Randolph (MSIT), Blockchain-based Radiology and Workflow for Clinicians, Jan 2022 – July 2022.
- Mohammad Masum (PhD Data Science and Analytics), Integrated Machine Learning Approaches to Improve Classification performance and Feature Extraction Process for EEG Dataset, September 2017 - July 2021. <u>https://digitalcommons.kennesaw.edu/dataphd\_etd/10/</u>
- Laeticia Etienne (MSIT), A Framework to Detect Presentation Attack, Fall 2019-Spring 2020. https://digitalcommons.kennesaw.edu/msit\_etd/7
- Travis Blue (MSIT), Distributed Denial of Service Attack Detection, Fall 2019-Spring 2020, https://digitalcommons.kennesaw.edu/msit\_etd/6
- Daniel Laufenburg (MSIT), An Architecture for Blockchain-based Collaborative Signature-based Intrusion Detection System, <u>https://digitalcommons.kennesaw.edu/msit\_etd/5</u>
- Maryam Farhadi (MSCS), Mitigation of Security Risks of Electronic Health Record Applications, May 2017 - April 2019. <u>https://digitalcommons.kennesaw.edu/cs\_etd/23</u>
- **Robert Bronte (MSIT)**, *Hybrid Intrusion Detection System Development*, Thesis Co-chairing with Dr. Hisham Haddad, Fall 2015- Fall 2016.
- Pranahita Bulusu (MSCS), Detection of Lightweight Directory Access Protocol Query Injection Attacks in Web Applications, MSCS Thesis Co-chairing with Dr. Hisham Haddad, Dec 2015, See <u>http://digitalcommons.kennesaw.edu/cgi/viewcontent.cgi?article=1001&context=cs\_etd</u>, Nominated as Outstanding MSCS Student from College of Computing and Software Engineering, KSU in December 2015.
- Vanessa Cooper (MSCS), Tapjacking Threats and Mitigation Techniques for Android Applications, jointly with Dr. H. Haddad, Defended on April 24 2014. See copy from <u>http://digitalcommons.kennesaw.edu/cgi/viewcontent.cgi?article=1632&context=etd</u>. Won 3<sup>rd</sup> position in ACM SAC 2014 Student Research Competition (Graduate category, See <u>http://src.acm.org/previouswinners.html</u>)
- Lorena Madronal (Visiting PhD Student, University of Cadiz, Spain), Event Processing Language Query Testing, Queen's University, Canada, January 2012- April 2012.

# **Research/Capstone Project Supervision (Selected)**

- John Kenemer (MSHMI), Oana Tudorache (MSHMI), Janna Pruitt (MSHMI), Implementing Virtual Nursing in Healthcare: An Evaluation of Effectiveness and Sustainability, Jan 2022-April 2022. Sponsor: Wellstar Hospital. Nominated as the Best Capstone Project.
- Lee Solomon (MSHMI), Reddy Bhaviya Guddi (MSHMI), Humera Asfandiyar (MSHMI), Knowledge Management in a Healthcare Enterprise: Creation of a Digital Knowledge Repository, Jan 2022- April 2022. Sponsor: Emory Hospital.
- Lorna Migiro (MSHMI), A Review of Contact Tracing Application, Completed. January 2020 July 2021.
- James Hogges, A Two-Step Password Authentication System for Alzheimer Patients, January 2020 May 2020.
- Gwyn Haley (BSIT), Marcus Parham (BSIT), Yusuf Yurt (BSIT), Gary Gainous (BSIT),
   Chrysanthus Nkengfack (BSIT), Fidelity and Security Vulnerabilities for the Modern Suite of
   Mobile Health Applications, Capstone project, August 2019 December 2019.
- Saiful Islam (MSIT), Non-invasive Fall Detection and Prevention, August 2019 December 2019. Joseph Lackey (BSIT), Anthony Wimbush (BSIT), Lara Oloruntoba (BSIT), "Mobile Health -SpO2", Capstone project, August 2019 - December 2019.
- Ryan Taylor (BSIT), Elise Maloney (BSIT), Marquez McClendon (BSIT), Dion Agbontaen (BSIT), Marquez McClendon (BSIT), Computer Vision for Fall-Detection, Capstone project, Winner of <u>CCSE C-Day Alumni Award</u>, August 2019 - December 2019.

Arabin Talukder (MSIT), Android Malware Detection, January 2019 - December 2019. Patricia Whitley (MSHMI), EHR Impact and Security on Medical Care Delivery, August 2018 - December 2019.

- **ABM Kamrul Riad** (BSIT), Comparing N-Gram and Entropy based Steganography, August 2018 May 2019.
- **Feiyang Qu** (MSCS), Blockchain Application Development for Secured Supply Chain, August 2018 May 2019.
- Xianyong Meng (MSCS), Static Code Analysis of Secure Android Application Development, August 2017 - December 2018.

Bernis Tibeme (MSHMI), Clinical Data Mining for Workflow Analysis, August 2017 - July 2018.

- **Donald Privitera** (MSIT), Ethical Hacking in IoT, January 2018 May 2018. Directed Study.
- William Bond (MSIT), Classification of Web Service-Based Attacks and Mitigation Techniques, January 2017 - July 2017.
- **Mahbubul Islam** (MSIT), An Iris-Based Authentication Framework to Prevent Presentation Attacks, January 2017 May 2017.
- Dan Bellamy (BSIT), Ryan Coughlan (BSIT), Scott Lewis (BSIT), Steven Mints (BSIT), Sara Rico-Larmer (BSIT), Network Traffic Analysis Using Armitage Tool, August 2016 - December 2016. Capstone project.
- Sara Larmar (BSIT), Cover Text Steganography: N-gram and Entropy-based approach, Accepted to Present at <u>NSF Student Research</u>, Conference on Cybersecurity Education, Research and Practice, Kennesaw State University, October 2016.
- Patrick Hade (BSIT), Jeremy Miller (BSIT) and Jeremy Fulbright (BSIT), An Elastic Log Platform For Information Querying and Visualization, Fall 2015, Presented poster in National Conference on Undergraduate Research (NCUR), see https://ncurdb.cur.org/ncur2016/search/Display\_NCUR.aspx?id=95510

Vamshee Devendran (MSCS), Clickjacking Attack Detection, Fall 2013 - Spring 2014.

**Sheetal Batchu** (MSCS), Mutation Testing of NoSQL Database Queries, Fall 2013- Spring 2014. **Ishan Vaidya** (MSCS), Buffer Overflow Mitigation in C and C++ Programs, Spring 2013.

Zachary Evans (MSCS), Web Session Security and Mitigation, Spring 2013.

- Edward Mawangi (BSCS, LSAMP Scholar), Memory Leak Detection in Android Applications, Fall 2013 Spring 2014, Presented poster in PLSAMP Conference, 2013 and 2014.
- Wei-Chuen Chen (BSCS), Testing of SQLI and XSS Attacks in Web Applications, Spring 2013-Fall 2013, Kennesaw State University, USA.
- **Thibaud Lutullier** (Visiting BSCS Student from Telecom France), Hidden Markov Model-based Browser Extension Vulnerability Detection, Spring 2012 - Summer 2012, Queen's University, Kingston, Canada.

# **Professional Community Service (Selected)**

Editor, Journal of Cybersecurity Education and Research (2020-Current).

Editor-in-Chief, International Journal of Systems and Software Security and Protection, IGI Global. (2019 - 2022)

Publication Chair, ACM Symposium of Applied Computing, 2017 - Current.

Publication Chair, IEEE COMPSAC, 2018 - Current.

- Publicity Chair, IEEE COMPSAC, 2016-2020.
- Program Chair, The IEEE International Workshop on Security, Trust & Privacy for Software Applications, 2017 Current.

Program Chair, IEEE International Conference on Digital Health, 2023.

Work-in-Progress and Student Research Competition Organizer, IEEE International Conference on Digital Health (ICDH), 2021- Current.

Symposium Chair, Smart and Connected Health, IEEE COMPSAC 2019- Current, USA. Reviewer, Grant Proposal, Maryland Industrial Partnerships Program (2020), NSERC Canada

(2020).

Fast Abstract Chair, The 40<sup>th</sup> Annual International Computers, Software & Applications Conference (COMPSAC 2016-2020).

- Program Chair, The 9<sup>th</sup> ACM/SIGSAC International Conference on Security of Information and Networks (SIN), Rutgers University, New Jersey, USA, July 20-22, 2016.
- Fast Abstract Chair, The 39<sup>th</sup> Annual International Computers, Software & Applications Conference (COMPSAC 2015).

# Institutional Service (Selected)

Committee Member, Faculty Search Committee, approximately 30 hours spent for the year. (January 2018- Spring 2023).

- Committee Chair, Department Faculty Council, approximately 12 hours spent for the year, elected. (August 2029 May 2020).
- Committee Chair, Promotion and Tenure Committee, approximately 10 hours spent for the year. (August 2019- May 2020).
- Committee Member, BSCyber Security program proposal development, Approximately 15 hours spent for the year, appointed. (August 18, 2016 December 9, 2016).
- Committee Member, NICCS (DHS) Education and Training Catalog for cybersecurity courses, approximately 12 hours spent for the year, appointed. (April 7, 2016 May 4, 2016).

KSU SPSU Consolidation Subcommittee for Computer Science, Approximately 20 hours spend, appointed. (Jan 2014-Dec 2014).

# Licensures and Certifications (Selected)

"Mandatory Vehicle Operator Training", Kennesaw State University. (March 2017 - Present). "Independent Applying the QM Rubric (APPQMR)", Kennesaw State University. (February 23, 2017 - Present).

- "Information security training", University Information Technology Services. (October 15, 2014 Present).
- "University System of Georgia Ethics Policy Course", University System of Georgia. (November 19, 2012 Present).
- "Data or Specimens Only Research", Massachusetts Institute of Technology Affiliates. (October 15, 2017 October 14, 2020).

"Social/Behavioral Research", Kennesaw State University. (June 28, 2017 - June 27, 2024).

#### **Professional Memberships**

ACM, IEEE, SIGAPP



**Department of Computer Science** 11000 University Parkway Building 4, Office 223 Pensacola, FL 32514

Memorandum

To: Dr. Thomas Reichherzer, Chair Department of Computer Science

From: Dr. Sikha Bagui, Chair of T&P Committee Sikha Bagui Department of Computer Science

Date: July 18, 2023

The Tenure and Promotion Committee of the Department of Computer Science convened a meeting on July 11, 2023, and voted as follows regarding tenure for Dr. Meng Yu:

7 in favor of tenure 0 against tenure

The Bylaws of the Department of Computer Science states, with respect to research, that a candidate for tenure must have evidence of one "tier 1" activity such as the publication of a journal article or obtaining a competitive grant of more than \$10,000.00, and publish two journal articles, to attain a rating of excellent. One tier 1 item and three journal articles meet the criteria for a distinguished rating.

Following the tenure criteria, as outlined in the Bylaws and considering the research accomplishments of Dr. Yu, the committee noted that Dr. Yu has several refereed journal publications as well as conference proceedings over the past five years.

Also, Dr. Yu has been PI or Co-PI on external competitive research grants totaling more than \$1M, from funding agencies including NSF and DOD.

The accomplishments of Dr. Yu over the past five years far exceed the expectations for tenure in the Computer Science department at UWF.

> office 850.474.2542 fax 850.857.6056 uwf.edu/computerscience An Equal Opportunity/Equal Access Institution

# Curriculum Vitae\* Meng Yu

Professor, Robert Miner Endowed Chair, Department Head

Department of Computer Science, Information Technology, and Data Science Roosevelt University 430 S. Michigan St. Chicago, IL 60605

# **1** Research Interests

Computer Security:	secure computing architecture, system security,
	- cloud computing, virtualization platform and security,
	— intrusion tolerance, self-healing systems, data integrity.
Artificial Intelligence:	— trustworthy AI,
	— AI enhanced computer security.

# 2 Education

Post-Doctorate	Cyber Security Lab	07/02-08/04
	The Pennsylvania State University, University Park, USA	
	Advisor: Professor Peng Liu	
	University of Maryland, Baltimore County, USA	01/02-06/02
	Advisor: Professor Peng Liu	
Doctor of Philosophy	Department of Computer Science	December, 2001
	Nanjing University, China	
	Advisor: Professor Li Xie, and Professor Zhongxiu Sun,	
	Member of Chinese Academy of Science.	
Master of Science	Department of Computer Science	March, 1998
	Northeastern University, China	-
	Advisor: Professor Tianshun Yao.	

\*Last revision: October 18, 2022

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# 3 Employment and Experience

08/2018-present	Professor (with tenure), Robert Miner Endowed Chair
	Department Chair,
	Reappointed for the second term, 2021
	Hired through national search for the first term, 2018
	Department of Computer Science, Information Technology, and Data Science
	Roosevelt University
08/2019-present	Program Co-Director
	BA in Music & Computing Program
	Collaboration with Chicago College of Performance Arts (CCPA)
	Roosevelt University
08/2015-07/2018	Associate Professor (with tenure)
	Chair of Master Program Committee
	Department of Computer Science
	University of Texas at San Antonio (Carnegie R1)
08/2010-06/2015	Co-Director of the graduate program
	M.S. in Computer and Information System Security Program
	A joint M.S. program with School of Business
	Virginia Commonwealth University (Carnegie R1)
08/2013-07/2014	Graduate Program Director
	Department of Computer Science
	Virginia Commonwealth University (Carnegie R1)
08/2012-07/2013	Associate Chair of the Computer Science Department
	Department of Computer Science
	Virginia Commonwealth University (Carnegie R1)
08/2010-06/2015	Associate Professor (tenure granted in 2012)
	Department of Computer Science
	Virginia Commonwealth University (Carnegie R1)
08/2007-06/2010	Assistant Professor
	Department of Computer Science
	Western Illinois University
08/2006-06/2007	Co-Director of the graduate program
	Department of Computer Science
	Monmouth University
08/2004-06/2007	Assistant Professor
	Department of Computer Science
	Monmouth University
07/2002-08/2004	Post Doctorate Research Associate,
	School of Information Sciences and Technology,
	Pennsylvania State University, University Park
12/2001-06/2002	Post Doctorate Research Associate,
	Department of Information System,
	University of Maryland, Baltimore County

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04/1998-12/2001	Faculty Member,
	Department of Computer Science,
	Nanjing University, China,
	Faculty Member,
	National Key Laboratory for Novel Software Technology, China.
08/2000-12/2001	Technical Consultant,
	Jiangsu Nandasoft Co, Ltd. Nanjing, China
08/1992-08/1995	Project Manager,
	CAPO Computer Techniques Company, Liaoning, China.

# 4 Research

#### 4.1 Pending Research Proposals - Under Review

- Co-PI, *Theme 1: NSF AI Institute for Active Cyber Defense Leveraging Intelligent Agents*. submitted to NSF in May, 2022. \$20M. (one of the five co-PIs from Missouri University, Purdue, University of South Florida, etc., team of 14 universities)
  - PI (subcontract from Purdue University), *Hippocrates: Human-aligned Autonomous Triage System*, submitted to DARPA ITM in May, 2022. \$151,050.

#### 4.2 Funded Research Grants

- Leading Principle Investigator. TWC: Small: Collaborative: Towards Agile and Privacy-Preserving Cloud Computing. SaTC, NSF. \$500K (\$250K for UTSA). October 2015 September 2018. Award number: 1634441.
- Moving Target Defense Through Dynamic Virtual Machine Placement in Clouds. ARO. \$15K, 2014-2017. Subcontracted from TAMUSA.
- Principle Investigator. *I-Corps: Commercializing a privacy-preserving cloud computing platform.* **I-Corps, NSF.** \$50K. July 2013 - December 2014. Award number: 1342664.
- Principle Investigator. *TC:EAGER:New Privacy Preserving Architecture for Security Monitoring in Cloud Computing*. **Trustworthy Computing**, **NSF**. \$200K. January 2011 December 2014. Award number: 1100221.
- Principle Investigator at WIU (with Dr. Sushil Jajodia, Leading PI at GMU, and Dr. Peng Liu, PI at PSU), *TC: Medium: Collaborative Research: Towards Self-Protecting Data Centers: A Systematic Approach*, **Trusted Computing**, NSF. \$1.2M. (\$270K for Meng Yu), Sep. 2009 Aug. 2012. Award number: 0905153.
- Principle Investigator at WIU (with Dr. Wanyu Zang, Co-PI at WIU, Dr. Peng Liu, Leading PI at PSU, and Dr. Qijun Gu, PI at Texas State University). *NeTS:Small:Collaborative Research:Secure and Resilient Channel Allocation in Multi-Radio Wireless Networks*, **Trusted Computing**, NSF. \$300K (\$90K for Meng Yu). Sep. 2009 Aug. 2012. Award number: 0916000.
- Principle Investigator at WIU (with Professor Peng Liu, Leading PI, at The Pennsylvania State University, and Professor Sushil Jajodia, PI, at Gorge Mason University), CT-ISG: New theories and

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techniques for non-blocking on-line recovery from database corruption attacks, CyberTrust, NSF. \$150K. (\$34K. for Meng Yu). Sep. 2007- Aug, 2009. Award number: 0757210.

• Principle Investigator, *Create trustiness based on multi-level authentication and integrity in distributed systems*, through the Center for Rapid Response Database Systems (CRRDS) by School of Science, Technology, and Engineering, Monmouth University, Summer research support, \$15,000, 2006

#### 4.3 Education Grants

- Co-PI, DoD Cyber Scholarship Program (CySP). \$82,289. August, 2022 July, 2023.
- Principle Investigator. EDU: Collaborative: Integrating Embedded Systems Security into Computer Engineering and Science Curricula. SaTC NSF. \$50K. September, 2016 - August, 2019. Award number: 1623247.

#### 4.4 Publications

#### 4.4.1 Refereed Conference Publications

- 1. Naiwei Liu, Meng Yu, Wanyu Zang and Ravi Sandhu, "On the Cost-Effectiveness of TrustZone Defense on ARM Platform." In *Proceedings of 21st World Conference on Information Security Applications (WISA)*, Virtual Event, August 26-28, 2020,
- Li Liu, An Wang, Wanyu Zang, Meng Yu, Mengbai Xiao and Songqing Chen. "Shuffler: Mitigate Cross-VM Side-channel Attacks via Hypervisor Scheduling." In *The 2018 International Conference* on Security and Privacy in Communication Networks (SECURECOMM). August 8-10, 2018. Singapore, Singapore.
- Li Liu, An Wang, Wanyu Zang, Meng Yu, Songqing Chen. "Empirical Evaluation of the Hypervisor Scheduling on Side Channel Attacks." In *IEEE ICC 2018 Communication and Information Systems* Security Symposium. 20-24 May 2018. Kansas City, MO, USA.
- 4. Le Guan, Peng Liu, Xinyu Xing, Xinyang Ge, Shengzhi Zhang, Meng Yu, Trent Jaeger. "Trust-Shadow: Secure Execution of Unmodified Applications with ARM TrustZone." In *The 15th ACM International Conference on Mobile Systems (MobiSys 2017)*. June 19th 23rd, 2017. Niagara Falls, NY, USA.
- 5. Jin Han, Wanyu Zang, Songqing Chen, Meng Yu. "Reducing Security Risks of Clouds through Virtual Machine Placement." In *The 31th Annual WG 11.3 Conference on Data and Applications Security and Privacy (DBSec'17)*. July 19th 21st. Philadelphia, PA, USA.
- 6. Zili Zha, Min Li, Wanyu Zang, Meng Yu, Songqing Chen. "AppGuard: A Hardware Virtualization Based Approach on Protecting User Applications from Untrusted Commodity Operating System." In 2015 International Conference on Computing, Networking and Communications (Invited Position Paper). February 16-19, 2015. Anaheim, California, USA.
- Min Li, Zili Zha, Wanyu Zang, Meng Yu, Peng Liu, Kun Bai. "Detangling Resource Management Functions from the TCB in Privacy-Preserving Virtualization." In *The 19th European Symposium on Research in Computer Security (ESORICS 2014)*. September 7-11, 2014, Wroclaw, Poland. Acceptance rate: 20%.

- 8. Bin Wang, Xiaochun Yang, Wanyu Zang and Meng Yu. "Approximate Self-Adaptive Data Collection in Wireless Sensor Networks." In *The 9th International Conference on Wireless Algorithms, Systems, and Applications (WASA 2014).* June 23-25, 2014, Harbin, China.
- Min Li, Wanyu Zang, Kun Bai, Meng Yu, Peng Liu. "MyCloud Supporting User-Configured Privacy Protection in Cloud Computing." In *Annual Computer Security Applications Conference*. New Orleans, Louisiana USA, December 2013. Acceptance rate: 19%.
- Qijun Gu, Kyle Jones, Wanyu Zang, Meng Yu and Peng Liu. "Revealing Abuses of Channel Assignment Protocols in Multi-Channel Wireless Networks: An Investigation Logic Approach." In *The 17th European Symposium on Research in Computer Security (ESORICS 2012)*. Acceptance rate: 20%.
- 11. Xiangyu Liu, Bin Wang, Xiaochun Yang, Meng Yu and Wanyu Zang. "Obtaining K-Obfuscation for Profile Privacy in Social Networks." In *The 7th International Conference on Frontier of Computer Science and Technology (FCST)* TSP Track, Suzhou, China, November 21-23, 2012.
- 12. Min Li, Yulong Zhang, Kun Bai, Wanyu Zang, Meng Yu, Xubin He. "Improving Cloud Survivability through Dependency based Virtual Machine Placement (short paper)." In *The International Conference on Security and Cryptography (SECRYPT'12)*, Rome, Italy, 24-27 July 2012.
- 13. Qijun Gu, Wanyu Zang, Meng Yu, and Peng Liu. "Collaborative Traffic-aware Intrusion Monitoring in Multi-channel Mesh Networks." In the 11th IEEE International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom-2012), Liverpool, UK, 25-27 June 2012.
- Wuqiong Pan, Yulong Zhang, Meng Yu, and Jiwu Jing. "Improving Virtualization Security by Splitting Hypervisor into Smaller Components." In *The 26th Annual WG 11.3 Conference on Data and Applications Security and Privacy (DBSec'12)*, Institut Mines-Télécom, Paris, France. July 11-13, 2012.
- 15. Yulong Zhang, Min Li, Kun Bai, Meng Yu, Wanyu Zang. "Incentive Compatible Moving Target Defense against VM-Colocation Attacks in Clouds." In *IFIP International Information Security and Privacy Conference 2012*, Heraklion, Crete, Greece, 4-6 June 2012. Acceptance rate: 25%.
- 16. Wuqiong Pan, Jiwu Jing, Luning Xia, Zongbin Liu, Meng Yu. "An efficient RSA Implementation without Precomputation". In *The 7th China International Conference on Information Security and Cryptology (Inscrypt'2011)*, Beijing, China, November 30 Dec 3 2011.
- 17. Qijun Gu, Meng Yu, Wanyu Zang, and Peng Liu. "Lightweight attacks against channel assignment protocols in mimc wireless networks." In *IEEE ICC, Communication and Information System Security Symposium*, Kyoto, Japan, 5-9 June 2011. Acceptance rate: 38.5%.
- 18. Heywoong Kim, Qijun Gu, Meng Yu, Wangyu Zang, and Peng Liu."A simulation framework for performance analysis of multi-interface and multi-channel wireless networks in inet/omnet++." In Proceedings of the 2010 Spring Simulation Multiconference, SpringSim'10, pages 101:1-101:8, New York, NY, USA, 2010. ACM.
- 19. Meng Yu, Alex Hai Wang, Wanyu Zang, and Peng Liu. "Evaluating survivability and costs of three virtual machine based server architectures." In *Internatinoal Conference on Security and Cryptography*, pages 478-485, 2010.

- Wanyu Zang, Qijun Gu, Meng Yu, and Peng Liu. "An attack-resilient channel assignment mac protocol." In Proceedings of the 2009 International Conference on Network-Based Information Systems, NBIS'09, pages 246-253, Indianapolis, Indiana. USA, 2009. IEEE Computer Society. Acceptance rate: 37%.
- Kun Bai, Meng Yu, and Peng Liu. "Trace: Zero-down-time database damage tracking, quarantine, and cleansing with negligible run-time overhead." In *Proceedings of the 13th European Symposium on Research in Computer Security: Computer Security, ESORICS'08*, pages 161-176, Berlin, Heidelberg, 2008. Springer-Verlag. Acceptance rate: 22%.
- 22. Meng Yu, Wanyu Zang, and Peng Liu. "Database isolation and filtering against data corruption attacks." In Annual Computer Security Applications Conference, pages 97-106, Miami, Florida, December 2007. Acceptance rate: 22%.
- 23. Meng Yu, Wanyu Zang, and Barbara Reagor. "Decentralized trust management based on the reputation of information sources." In *IEEE International Conference on Networking, Sensing and Control* (ICNSC'2007), pages 212-217, 2007.
- 24. Wanyu Zang and Meng Yu. "A dead-lock free self-healing algorithm for distributed transactional processes." In *International Conference on Information systems security (ICISS'06)*, pages 289-302, December 2006. Acceptance rate: 30%.
- 25. Meng Yu, Wanyu Zang, and Peng Liu. "Defensive execution of transactional processes against attacks." In Annual Computer Security Applications Conference (ACSAC'05), pages 515-526, Tucson, Arizona, USA, December 2005. Acceptance rate: 19.6%.
- 26. Meng Yu, Wanyu Zang, Peng Liu, and Jiacun Wang. "The architecture of an automatic distributed recovery system." In *IEEE International Conference on Networking, Sensing and Control*, pages 999-1004, Tucson, Arizona, 2005.
- 27. Meng Yu, Peng Liu, and Wanyu Zang. "Self-healing workflow systems under attacks." In *The 24th International Conference on Distributed Computing Systems (ICDCS'04)*, pages 418-425, 2004. Acceptance rate: 17.68%.
- 28. Meng Yu, Peng Liu, and Wanyu Zang. "Intrusion masking for distributed atomic operations." In *The 18th IFIP International Information Security Conference*, pages 229-240, Athens Chamber of Commerce and Industry, Greece, 26-28 May 2003. IFIP Technical Committee 11, Kluwer Academic Publishers. Acceptance rate: 27%.
- 29. Meng Yu, Peng Liu, and Wanyu Zang. "Multi-version based attack recovery of workflow." In *The* 19th Annual Computer Security Applications Conference (ACSAC'03), pages 142-151, Las Vegas, Nevada, December 2003. Acceptance rate: 30%.

#### 4.4.2 Refereed Journal Publications

 Jin Han, Wanyu Zang, Meng Yu and Ravi Sandhu, "Quantify Co-Residency Risks in the Cloud through Deep Learning." *IEEE Transactions on Dependable and Secure Computing*, Volume 18, Number 4, July 2021

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- 31. Naiwei Liu, Meng Yu, Wanyu Zang, and Ravi Sandhu, "Cost and Effectiveness of TrustZone Defense and Side-Channel Attack on ARM Platform." *Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications (JoWUA)*, Volume 11, Number 4, Dec. 2020, pages 1-15
- Naiwei Liu, Wanyu Zang, Songqing Chen, Meng Yu, Ravi Sandhu. "Adaptive Noise Injection against Side-Channel Attacks on ARM Platform." *EAI Endorsed Transactions on Security and Safety*, Vol 6, No. 19, 2019.
- 33. Le Guan, Peng Liu, Xinyu Xing, Xinyang Ge, Shengzhi Zhang, Meng Yu, Trent Jaeger. "Building a Trustworthy Execution Environment to Defeat Exploits from both Cyber Space and Physical Space for ARM." *IEEE Transactions on Dependable and Secure Computing*, Vol. 16, Issue 3, pages 438-453.
- Jin Han, Wanyu Zang, Li Liu, Songqing Chen, Meng Yu. "Risk-aware Multi-Objectives Optimized Virtual Machine Placement in Cloud." *Journal of Computer Security*, Vol. 26, Issue 5, pages 707-730. 2018.
- Bin Wang, Xiaochun Yang, Guoren Wang, Ge Yu, Wanyu Zang, Meng Yu. "Energy Efficient Approximate Self-Adaptive Data Collection in Wireless Sensor Networks." *Frontiers of Computer Science*, Volume 10, issue 5, page 936-950, October 2016.
- David S Jackson, Wanyu Zang, Qijun Gu, Meng Yu. "Robust Detection of Rogue Signals in Cooperative Spectrum Sensing." *Journal of Internet Service and Information Security (JISIS)*, Vol. 5, No. 2, 2015.
- 37. David S Jackson, Wanyu Zang, Qijun Gu, Wei Cheng and Meng Yu. "Exploiting and Defending Trust Models in Cooperative Spectrum Sensing." EURASIP Journal on Wireless Communications and Networking (Section: SI: Dynamic Spectrum Access for Throughput, Delay & Fairness Enhancement In Cognitive Radio Networks), Accepted, 2014.
- 38. Xiangyu Liu, Bin Wang, Xiaochun Yang, Meng Yu and Wanyu Zang. "Obtaining K-Obfuscation for Profile Privacy in Social Networks." *Special issue of Security and Communication Networks (Wiley)*, Accepted, 2014.
- 39. Shanchen Pang, Tan Li, Feng Dai, Meng Yu. "Particle Swarm Optimization Algorithm for Multisalesman Problem with Time and Capacity Constraints." *Applied Mathematics & Information Sciences.* Vol. 7, No. 6, 2439-2444 2013. http://dx.doi.org/10.12785/amis/070637
- 40. Chengpo Mu, Meng Yu, Yingjiu Li, Wanyu Zang. "Risk balance defense approach against intrusions for network server." *International Journal of Information Security*. October 2013. http://link.springer.com/article/10.1007%2Fs10207-013-0214-9.
- 41. Yan Yang, Yulong Zhang, Alex Hai Wang, Meng Yu, Wanyu Zang, Peng Liu, Sushil Jajodia, "Quantitative survivability evaluation of three virtual machine-based server architectures." *Journal of Network* and Computer Applications. Volume 36, Issue 2, March 2013, Pages 781-790
- 42. Peng Liu and Meng Yu. "Damage assessment and repair in attack resilient distributed database systems." Computer Standards and Interfaces, 33:96-107, January 2011.
- 43. Meng Yu, Wanyu Zang, and Peng Liu. Recovery of data integrity under multi-tier archi-tectures. IET Information Security, 4(4):344-351, 2010.

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- 44. Meng Yu, Peng Liu, and Wanyu Zang. "The implementation and evaluation of a recovery system for workflows." *Journal of Network and Computer Applications*, 32:158-183, January 2009.
- 45. Wanyu Zang, Peng Liu, and Meng Yu. "How resilient is the internet against ddos attacks? â□ ⊂ a game theoretic analysis of signature-based rate limiting." *The International Journal of Intelligent Control and Systems*, 12(4):307-316, December 2007.
- 46. Wanyu Zang, Meng Yu, and Peng Liu. "A distributed algorithm for workflow recovery." International Journal on Intelligent Control and Systems, 12(1):56-62, March 2007.
- 47. Peng Liu, Wanyu Zang, and Meng Yu. "Incentive-based modeling and inference of attacker intent, objectives, and strategies." ACM Transaction on Information System Security, 8:78-118, February 2005.
- 48. Meng Yu, Peng Liu, and Wanyu Zang. "Specifying and using intrusion masking models to process distributed operations." *Journal of Computer Security*, 13:623-658, July 2005.

#### 4.4.3 Refereed Book Chapters

- 49. Wanyu Zang, Meng Yu, and Peng Liu. "Incentive-based methods for inferring attacker intent and strategies and measuring attack resilience." In H. Raghav Rao and Shambhu Upadhyaya, editors, *Handbooks in Information Systems: Information Assurance, Security and Privacy Services*, volume 4, pages 679-705. Emerald Group Publishing Limited, 2009.
- 50. Peng Liu, Sushil Jajodia, and Meng Yu. "Damage quarantine and recovery in data processing systems." In *Database Security Handbook: Applications and Trends*, pages 383-407. Springer, 2008.
- 51. Meng Yu, Peng Liu, Wanyu Zang, and Sushil Jajodia. "Trusted recovery." In Ting Yu and Sushil Jajodia, editors, Secure data management in decentralized systems, pages 59-94. Springer, 2007.
- 52. Peng Liu, Meng Yu, and Jiwu Jing. "Information assurance." In Hossein Bidgoli, editor, Handbook of Information Security, volume 2, pages 110-126. John Wiley & Sons, Inc., 2006.

#### 4.4.4 Refereed Articles in Journals (in Chinese)

- 53. Meng Yu, Wanyu Zang, and Li Xie. "Parallelism Analysis based on Generalized Method Invocation Model". *The Chinese Journal of Computers, China*. pp. 403-408, April, 2002.
- 54. Meng Yu, Wanyu Zang, and Li Xie. "Method Invocation Localizing Optimization in Parallelizing Object-Oriented Language", *The Chinese Journal of Computers, China.* pp. 409-416, April, 2002.
- 55. Meng Yu, Ghuihai Chen, X. Yang, Li Xie, and Minyi Guo. "JAPS-II: A Parallelizing Compiler for Java". Journal of Software, China. 13 (4):739-747, 2002.
- 56. Meng Yu, Wanyu Zang, Li Xie, and Minyi Guo. "A Survey of Parallel Object-Oriented Language". Journal of Software, China. 12 (6):822-829 ,2001.
- 57. Xuelin Yang, Meng Yu, and Li Xie. "New Development of Automatic Parallel Compilation". Journal of Software, China, 11 (9):1268-1275, 2000.

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- 58. Xuelin Yang, Meng Yu, and Li Xie. "A Run-Time Technique for Parallel Loop Identification Based on Distributed System". *Journal of Software, China*. 13 (8):1718-1722,2002.
- 59. Wanyu Zang, Meng Yu, and Li Xie. "A Routing Protocol for Ad-hoc Mobile Network with Unidirectional Links (UAOR)". *The Chinese Journal of Computers, China*. No.10, pp. 1018-1025, 2001.
- 60. Wanyu Zang, Meng Yu, and Li Xie. "An Optimized Routing Protocol for Ad-hoc Mobile Network with Unidirectional Links (OUAOR)". *The Chinese Journal of Computers, China*. No. 10, pp. 1030-1037, 2002.
- 61. Wanyu Zang, Meng Yu, and Li Xie. "A Survey of On-demand Routing Protocols for Ad-hoc Mobile Networks". *The Chinese Journal of Computers, China*. pp. 1009-1017, 2002.
- 62. Wanyu Zang, Meng Yu, and Li Xie. "Stable Cluster Based Hybrid Routing Protocol for Ad-hoc Mobile Networks". *The Chinese Journal of Computers, China*. No.12, pp. 1262-1271, 2001.
- 63. Qing Gu, Daoxu Chen, and Meng Yu. "Validation Test of Distributed Program Based on Event Sequencing Constraints". *Journal of Software, China*. 11(8):1053-1059, 2000.
- 64. Meng Yu and Tianshun Yao, "A Hybrid Method for Collating Chinese Text: HMCTC", Journal of Chinese Information, China. No.1, 1998,

#### 4.4.5 Technical Reports not Otherwise Published

- Yulong Zhang, Wuqiong Pan, Qingpei Wang, Kun Bai, Meng Yu. Technical Report: "HypeBIOS: Enforcing VM Isolation with Minimized and Decomposed Cloud TCB." VCU CyberSecurity Lab. 2012.
- Yulong Zhang, Min Li, Benjamin Wilder, Meng Yu, Kun Bai, Peng Liu. Technical Report: "Neu-Cloud: Enabling Privacy-preserving Monitoring in Cloud Computing." VCU CyberSecurity Lab. 2011.
- 3. Meng Yu, Peng Liu, and Wanyu Zang. "A Practical Model for Performance Evaluation of Attack Recovery Systems – PEARS". Technical Report TR-S2-03-05, Cyber Security Group, 2003
- 4. Meng Yu, Peng Liu, and Wanyu Zang. "A Practical Architecture for Distributed Intrusion Masking Database Systems", Technical Report, PSU-S2-2002-002, Penn State Cyber Security Group, 2002.

#### 4.4.6 Theses

- "Parallelizing Techniques of Object-Oriented Languages". Ph.D. dissertation. Department of Computer Sciences and Technology, Nanjing University, Nanjing, China, November, 2001. Supervisor: Prof. Zhongxiu Sun and Prof. Li Xie.
- 2. "Research on automatic proof-reading of Chinese text". M.S. thesis. Department of Computer Science, Northeastern University, Shenyang, China, March, 1998. Supervisor: Prof. Tianshun Yao.

#### 4.5 Presentations and Talks

- "Protection against Compromised Operating Systems on ARM Cortex-A Architecture". The Center for Education and Research in Information Assurance and Security (CERIAS) of Purdue University. West Lafayette, IN. February, 2019.
- 2. "Privacy in Cloud Computing". ISC Industry Day Event: Mitigating Consequences of a Cyber Security Attack & Building the Human Firewall. McLeen, VA. April 24, 2013.
- 3. "An Attack-Resilient Channel Assignment MAC Protocol". The 12th International Conference on Network-Based Information Systems (NBiS'09), Indianapolis, IN. August. 2009.
- 4. "Database Isolation and Filtering against Data Corruption Attacks", The proceedings of the 21th Annual Computer Security Applications Conference, 2007 (ACSAC'07), Miami, FL, 2007
- "Decentralized Trust Management based on the Reputation of Information Sources". 7th New Jersey Universities Homeland Security Research Consortium Symposium. Rutgers University, New Jersey. November, 2006.
- 6. "Defensive Execution of Transactional Processes against Attacks". The 21th Annual Computer Security Applications Conference, 2005 (ACSAC'05), Tucson, AZ.
- 7. "Self Healing Workflows under Attacks", 5 minute talk, IEEE Symposium on Security and Privacy, 2005. Oakland, CA
- "Multi-version based Attack Recovery of Workflow", at the Annual Computer Security Applications Conference, 2003. (ACSAC'03), Las Vegas, Dec, 2003
- 9. "Intrusion Masking for Distributed Atomic Operations", at The Cyber Security Lab, Pennsylvania State University, University Park, April, 2003
- "JAPS-II: A Source to Source Parallelizing Compiler for Java". At the 2002 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'02), Las Vegas, June, 2002

#### 4.6 Postdoctoral Scholar Advised

• Yan Yang, Ph.D. of Japan Advanced Institute of Science and Technology. Joined University of Maryland, College Park as a post-doctoral scholar in January, 2011.

# 4.7 Graduate Students Advised

#### 4.7.1 Ph.D. Students

- Naiwei Liu, graduated in Octover, 2020. First employment at University Davenport.
- Jin Han, graduated in November, 2019, First employment at Samsung Research, Austin, Texas.
- Min Li, Ph.D. graduate in May, 2015. First employment at FireEyes. CA, USA.
- David Jackson, Ph.D. graduate in June, 2015. First employment at FireEyes. CA, USA.

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• Wuqiong Pan, Ph.D. graduated in November, 2013. First employment at Institute of Information Engineering, Chinese Academy of Science.

#### 4.7.2 Ph.D. Dissertation

I directed the following students.

- Jin Han, Enhance security in cloud computing through virtual machine placement.
- Naiwei Liu, Cache-based attack and defense on ARM platform.
- Min Li, Privacy Protection on Cloud Computing
- David Jackson, Rogue Signal Threat on Trust-based Cooperative Spectrum Sensing in Cognitive Radio Networks
- · Wuqiong Pan, Research on virtual machine security.

I served the following Ph.D. advisory committees, not as the advisor.

- Andrew C Jung, On Relay Node Placement Problem for Survivable Wireless Sensor Networks. December, 2013
- Lan Wu, Exploring Hybrid SPM-Cache Architectures to Improve Performance and Energy Efficiency for Real-time Computing. December, 2013.
- Guanying Wu, Performance and Reliability Study and Exploration of NAND Flash-based Solid State Drives. June, 2013.
- Sharad Shandilya. Assessment and Prediction of Cardiovascular Status During Cardiac Arrest Through Machine Learning and Dynamical Time-Series Analysis. July, 2013
- Sardar Ansari, Motion Artifact Reduction in Impedance Plethysmography Signal. June, 2013
- Xuguang Qi, Image analysis of corrosion growth rate of Aluminium and Steel. May, 2013.
- Chentao Wu, Improve the Performance and Scalability of RAID-6 Systems Using Erasure Codes. November, 2012.
- Yiqiang Ding, WCET Optimizations and Architectural Support for Hard Real-Time Systems. November, 2012.
- Yurong Luo, The Severity of Stages Estimation During Hemorrhage Using Error Correcting Output Codes Method. August, 2012
- Ashwin Belle, A Physiological Signal Processing System for Optimal Engagement and Attention Detection. July, 2012.
- Jie Wu, Segmentation and Fracture Detection in CT Images for Traumatic Pelvic Injuries. April, 2012.

#### 4.7.3 M.S. Thesis

I directed the following thesis work as the advisor.

- Yulong Zhang, Towards an incentive-compatible framework of secure cloud computing, May, 2012
- Yufeng Zhen, A Novel Spam Campaign in Online Social Networks. November, 2013.

I was in the advisory committee of following students.

- David Jackson, Exploiting and Protecting Sensor Trust in Cooperative Spectrum Sensing for Cognitive Radio Networks. April, 2013
- Qiang Wang, The Role of Zinc Particle Size and Loading in Cathodic Protection Efficiency. December, 2012.
- Yan Fang, Simulation, Measurement, and Image Analysis of Corrosion Initiation and Growth Rate of Alumium 2024 and Steel 304. August, 2011.

#### 4.8 Other Activities

I have hosted the following visiting scholars in my research lab for collaborative research.

- Zhiyi Ma, Associate Professor, Peking University
- Shanchen Pang, Associate Professor and Associate Dean, Shandong University of Science and Technology
- · Chengpo Mu, Associate Professor, Beijing Institute of Technology

# **5** Teaching Activities

#### 5.1 Curriculum Development

- A new BS in Music and Computing program at Roosevelt University.
- A new MS in Cybersecurity and Information Assurance program at Roosevelt University.
- A graduate level course Cloud Computing and Virtualization Security at UTSA.
- A undergraduate level course Distributed System and Cloud Computing Security at UTSA.
- A graduate level course *Cloud Computing* with security emphasis was developed at Virginia Commonwealth University.
- Serving the co-director of the M.S. in Computer and Information System Security and updating the curriculum of the program at Virginia Commonwealth University.
- A new concentration (with colleagues), Security of Information Systems and Networks, graduate program at Monmouth University.
  - Fundamentals of Computer Security and Cryptography (graduate level)

- Computer Security (graduate level)
- Network Security (graduate level)
- Database and Transactions Security (graduate level)

# 5.2 Courses Taught

#### **Courses at Roosevelt University**

CST/CSIA 317 Operating Systems, every fall CST455 Cloud computing and security, every spring

#### Courses at University of Texas at San Antonio

- CS3853 Computer Architecture, fall, 2016
- CS3743 Computer Organization, fall, 2015
- CS6393 Cloud computing and virtualization security, spring, 2016

#### Courses at Virginia Commonwealth University

- CMSC312 Operating System, spring 2011, 2012, 2013, 2014, and fall 2013
- CMSC622 Operating System and Networks Security, fall 2010, 2011, 2012, and 2013
- CMSC691 Cloud Computing, Spring 2013

#### **Courses at Western Illinois University**

- CS400 Computer Organization, every semester since fall 2007
- CS410 Operating Systems, every semester since fall 2007
- CS470 Database Systems, spring 2009
- CS560 Computer Architecture every fall of 2007, 2008, and 2009
- CS590 Database and Transactions Security, Spring 2008

# **Courses at Monmouth University**

- CS528 Database and Transactions Security, Spring 2007
- CS698 Network Security, Fall 2005
- CS598 Computer Security, Fall 2004, Fall 2006
- CS505 (SE-698, CS-438) Operating Systems, Summer, 2005, Fall 2005, Spring 2006, Fall 2006
- CS509 Advanced Programming II, Fall 2004, Spring 2005, Fall 2005, Spring 2006
- CS502 Math Foundation of Computer Science, Spring 2005

#### **Courses at Pennsylvania State University**

- IST402 Network security, Spring 2004, Guest Lecturer
- IST220 Networking and Communications, Spring 2004, Guest Lecturer

#### **Undergraduate Courses at Nanjing University**

Compiler principles— Spring 2000, Spring 2001,Operating systems— Fall 2000Unix and C— Spring 2000Computer network— Fall 1999

# **6** Services

#### 6.1 University Services

- Chair of MS committee, Department of Computer Science, UTSA, 2015-2018
- Faculty search committee, Department of Computer Science, UTSA, 2015, 2016, 2017
- Graduate committee, Department of Computer Science, UTSA, 2015, 2016, 2017
- Online program committee, Department of Computer Science, UTSA, 2015, 2016
- Graduate director, Computer Science department, Virginia Commonwealth University, 2013-2014.
- Co-director, M.S. in Computer and Information System Security, joint program by School of Engineering and School of Business, Virginia Commonwealth University, 2010-2015.
- School of Engineering Promotion and Tenure Committee, Virginia Commonwealth University, 2013-2015.
- University Promotion and Tenure Committee, Virginia Commonwealth University. 2012-2013.
- Faculty search committee, English Language Program, 2013.
- Faculty search committee, Computer Science department, 2013.
- Graduate Committee, Department of Computer Science, Virginia Commonwealth University, 2010present.
- University Research Council, Department of Computer Science, Western Illinois University, 2008-2010.
- Undergraduate Committee, Department of Computer Science, Western Illinois University, 2007-2010.
- Graduate program co-director, Department of Computer Science, Monmouth University, 2006-2007.
- Departmental library coordinator, Department of Computer Science, Monmouth University, 2005-2007.
- Teaching Learning Technology Round table (TLTR) Committee, School of Science, Technology, and Engineering, 2004-2007
- Graduate Study Committee, Monmouth University, 2006-2007
- Governance Task Force Committee, Monmouth University, 2005-2007

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#### 6.2 **Professional Activities**

#### 6.2.1 NSF Panelist

- CSGrad4US, 2022
- Secure and Trustworthy Cyberspace (SaTC), NSF, 2012, 2014, 2015, 2016, 2017
- Computer Systems Research (CSR), NSF, 2013
- Trusted Computing (TC), NSF, 2009
- Cyber Trust (CT), NSF, 2008

#### 6.2.2 Conference and workshop organization

- The 27th International Conference on Computer Communications and Networks (ICCCN 2018) HOT Track Chair.
- Workshop on Privacy in the Electronic Society 2017, Dallas, Texas. Session Chair.
- The 27th Annual IFIP WG 11.3 Working Conference on Data and Applications Security and Privacy (DBSEC) 2013, Session chair.
- The 25th Annual IFIP WG 11.3 Working Conference on Data and Applications Security and Privacy (DBSEC) 2011, General Co-Chair
- Security in Emerging Wireless Communication and Networking Systems (SEWCN) Workshop 2009, Co-Chair
- International Workshop on Information Assurance in Distributed Systems (IADS) 2005, Co-Chair

# 6.2.3 Editorial Board

- Journal of Internet Services and Information Security (JISIS)
- Intelligent Automation & Soft Computing (IASC), Impact Factor (IF) 3.401

#### 6.2.4 Program Committee Service

I am the member of the Program Committee of the following conferences and workshops.

- CloudNet2022, IEEE CNS 2022, WISA 2022, ICICS 2022, SSS-22
- CloudNet2021, IEEE CNS 2021, IEEE MASS 2021, IEEE SPC 2021, MobiSec 2021, ICICS 2021, ICCCN 2021
- CloudNet2020, 3ICT2020, ICNC'20 MCVC, ICNC'20, ISA, ICNC'20 CIS, IEEE CNS 2020, IEEE SPC 2020, IEEE WCNC 2020, SSCC 2020, WISA 2020, ICDCS 2020, ICMC 2020
- CloudNet2019, 3ICT'19, ICNC'19 CIS, ICNC'19 ISA, ICNC'19 MCVC, IEEE CNS 2019, IEEE MASS 2019, IEEE MENACOMM'19. IEEE SPC 2019, SSCC 2019, DSC 2019, WEPS2019, WISA 2019, CODASPY 2019

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- CloudNet2018, ICNC'18 CIS, ICNC'18 ISA, ICNC'18 MCVC, IEEE CNS 2018, IEEE MASS'18, IEEE CNS 2018, SSCC 2018, SecureCOMM 2018, GPC-2018, ICCCN 2018
- ICISS 2017, WPES, 2017, MIST 2017, ATCI 2017, ICISS 2017, AsiaCCS-SCC 2017, ICMC 2017, ACN-2017, IEEE TENSYMP 2017, DBSec 2017, ISPA 2017, ESORICS 2017, ICMC 2017
- MIST 2016, WPES 2016, WISTP 2016 CANS 2016, IEEE TrustCom 2016, SCC 2016
- MIST 2015
- European Symposium on Research in Computer Security (ESORICS) 2014, 2015, 2016, 2017
- DBSEC'14,15,16
- CoNeD 2013, DBSEC'13, NAS'13, MIST'13, WPES'13
- CSOSN'12, DBSEC'12, ESTEL-SEC2012, NAS'12
- DBSEC'11, Inscrypt'11, ICCCN 2011, GCâ11 NGN, PETSE 2011, ICDT 2011
- DBSEC'10, Inscrypt'10, MIST'10, GC'10 NGN, ICDT'10, ARES'10
- SEWCN'09, IPCCC'09, WIDA'09, SECRYPT 2009, ARES 2009, IRI 2009
- DBSec 2008, ARES 2008, SSN 2008, IEEE ICNSC 2008, ICDT2008
- SECRYPT 2007, ARES 2007, ISDPE 2007, ATC 2007
- IRI 2006, ICDT 2006, SESYS 2006, SECRYPT 2006, DBSec 2006
- SecUbiq 2005

#### 6.2.5 Reviewer for conferences and journals

- Journal of Computer Security
- ACM Transactions on Information and System Security (TISSSEC)
- IEEE Transactions on Dependable and Secure Computing (TDSC)
- IEEE Transaction on Knowledge and Data Engineering (TKDE)
- IEE Information Security
- IEEE Transactions on Systems, Man and Cybernetics (TSMC)
- Security and Communication Networks
- International Journal of Intelligent and Control Systems
- Journal of Digital Library.
- Journal of Software (in Chinese).

- Journal of Computer Research and Development (in Chinese).
- ICNSC'05, ICNSC'06,
- Annual Computer Security Applications Conference (ACSAC'04, ACSAC'05)
- ITCC'05, Globecom'05, SecureComm'05, ESORICS'05, ICNSC'05, ICNSC'06, SecUbiq'05 ITCC'05
- ACM Conference on Computer and Communications Security (CCS'02, CCS'03).
- IFIP International Information Security Conference (SEC'04).
- IFIP WG 11.3 on Data and Application Security (DBSec'03).

# 7 Other Achievements

#### 7.1 Projects

I participated in the following projects as principal personnel (NOT as PI).

- 1. Securing space platform. Sandia National Lab. Consultant through Purdue University. 2019-Present.
- 2. The work on workflow recovery is supported in part by DARPA/AFRL F20602-02-1-0216, Aug, 2002-Feb, 2003. I proposed fundamental theories for attack recovery of workflows. My theories are dependency relation based. I built a set of mathematical models to evaluate their performance and integrity levels. I have also built a prototype system to do extensive experiments. The theoretical results are well confirmed by our prototype system. Both single version and multiple version based recovery are practical according to our evaluation.
- 3. The work on intrusion tolerance is supported in part by NSF CCR-TC-0233324, and by Department of Energy Early Career PI Award. In this work, I formally specified a set of building blocks by the state machine model for distributed systems. We combined these building blocks to intrusion masking models that can provide non-degradation service in the face of intrusions. We also proposed protocols to implement the building blocks. Finally, we evaluated our protocols to ensure that they are practical. Our techniques can be applied to build intrusion masking atomic distributed operations.
- 4. Security extension to Linux. Supported by the National Hi-Tech Research and Development Program of China (863 Project). Contract Number 863-301-6-4. 2000,8-2001,3.
- Development of Security Operating System based on Linux. Supported by the National Hi-Tech Research and Development Program of China (863 Project). Contract Number 863-306-ZD12-14-3. 2000,8-2001,1
- 6. Security Techniques Research in National Supercomputing Environment. Supported by the National Hi-Tech Research and Development Program of China (863 Project) as a sub project of 863 Key Project "Grid Software". 2000,8-2001,3
- Research on Security Operating System based on Linux. Supported by Ministry of Education Young Teacher foundation. 2000,8-2001,10

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Work 3,4,5 and 6 developed a secure operating system. Our secure operating system passed evaluation with TCSEC B1 level by Ministry of Public Security in Feb. 2001. It is the second B1 level and the highest security level commercial operating system in China.

8. Parallelizing compiler of Java. Supported in part by the National Hi-Tech Research and Development Program of China (863 Project) and National Climber Project. 1998,4-2000,7. This work developed a compiler for Java that transforms sequential Java programs into parallel Java programs running on a cluster or multi-processor computers.

#### 7.2 Other Honors and Awards

- 1. "Sciences and Technology Achievement", China Ministry of Education. This is issued to our research group at Department of Computer Sciences and Technology, Nanjing university, China, 2001
- 2. "Excellent Scholar" The fifth national advanced training course for doctors and professors, by National 863-306 Committee, Beijing, China, Aug. 2001.
- 3. "Excellent achievement of science and techniques", Science Committee of Shenyang, China, 1991. (A Computer real-time monitor system of slop pump)

## ACA-2 Action Item

#### UWF Board of Trustees Meeting Academic Affairs Committee August 17, 2023

Issue/Agenda Recommendation:	2022-2023 UWF Institutes & Centers Annual Report
Proposed action:	Approve

#### **Background information:**

The Florida Board of Governors requires annual reporting to detail Institutes and Centers expenditure information for the prior fiscal year as outlined in Florida Regulation 10.015 Institutes and Centers.

This report of expenditures by UWF Centers and Institutes is compiled by the Office of Research Administration and Engagement for review and approval by each UWF Center/Institute's Director.

Implementation Plan:	Report to be submitted to the BOG by December 1, 2023
Fiscal Implications:	n/a

#### Supporting documents:

2022-2023 UWF Institutes and Centers Annual Report

Prepared by:Matthew Schwartz, Associate Vice President<br/>(850) 474-2824, <a href="mailto:mschwartz@uwf.edu">mschwartz@uwf.edu</a>

Presenters: Matt Schwartz, Associate Vice President

Annual Reporting Template Instructions FY 2022-2023 Please complete the contact information on the right. Tab"1-AnnualReporting": Please enter information for columns 5B to Column 14 for all l&Cs Tab"2-COE Reporting": Please enter information for columns 6-9 for all Centers of Excellence Tab "3-Additional l&C": If applicable, please enter information for any new l&Cs not captured in tab "1-AnnualReporting"

Tab

	Please complete Column 5B - Column 14 for all I&Cs			
	1. Institution Name	This column should be used to filter the data for the specific institution completing the template.		
	2. Center Type	Identifies the center as a " Center of Excellence", "State of Florida" or "University" I&C. This designation is determined by the host institution at the incention of the center		
	3. Center Code	Identifies the code assigned to the center or institute as assigned by the BOG. If there is a discrepancy here please indicate this in the comments section of the spreadsheet.		
	4. Center Name	Identifies the C&I name		
	54 Center Status (Board Records)	Identifies the C&I activity status as "Active" "Inactive" or "Terminated/Dishanded" as of July 2023 in Board records		
	5B. Center Status (Institution)	Identifies the C&I activity status as "Active", "inactive", or "Ierninated/Disbanded" based on what the institution has on file. This should be used to provide updates to the board office regarding the status of institutional I&C's. Should there be a discrepancy, please submit the appropriate documents with the DRS response and indicate this in the comment section of the spreadsheet. Drop down is provided		
	6.Total FY 2022-23 Expenditures	Total expenditures for all C&I's identified as active during the specified reporting term. Expenditure total should include contracts & grants, E&G state funds, trust funds, and fees for service.		
1-Annual Reporting	7. Expenditures: State & E&G	Total expenditures from E&G and/or state funds for all C&I's identified as active during the specified reporting term.		
	8. Expenditures: Contracts & Grants	Total expenditures from contracts and grants for all C&I's identified as active during the specified reporting term.		
	9. Expenditures: Fees for Service	Total expenditures from fees for services for all C&I's identified as active during the specified reporting term.		
	10. Expenditures: Private and Trust Funds	Total expenditures from private and trust funds for all C&I's identified as active during the specified reporting term.		
	11. Staff / Faculty FTE	Identify the total FTE for all faculty and staff directly associated with the operation of the C&I as of June 30, 2023.		
	12. Year of Most Recent Evaluation	Indicate the year the most recent assessment/evaluation performed pursuant to BOG Regulation 10.015. This column should be completed for all C&I's identified as active or inactive in the template.		
	13. Year of Prior Evaluation	Indicate the year an evaluation/assessment was performed pursuant to BOG Regulation 10.015, ahead of the evaluation identified in column 12. This column should be completed for all I&C's identified as active or inactive in the template.		
	14. Rational for Missing Evaluations	For all missing evaluations please provide a rational		
	Please of	omplete all columns 6-9 for all Centers of Excellence		
	1. Institution Name	This column should be used to filter the data for the specific institution completing the template.		
-	2. Center Type	The column is pre-tiltered to only include Centers of Excellence		
	3. Center Code	indicate this in the comments section of the spreadsheet		
2-COE Reporting	4. Center Name	Identifies the Center of Excellence name		
	5. Established Year	Provides the year the center of excellence was created		
	6. Cumulative Total State Funds Received	Total state funds received since the center was created		
	7. Cumulative Total Non-State Funds Received	Total non-state funds received since the center was created		
	8. Fiscal Year State Funds Received	Total non-state funds received for the specified reporting term		
	9. Fiscal Year Non-State Funds Received	Total state funds received for the specified reporting term		
	Please complete a complete in the lease comp	all columns for any I&Cs not captured in the Annual Reporting Board's inventory for Sheet 1-AnnualReporting, please update the information on this sheet)		
	1. Center Type	Identifies the center as a " Center of Excellence", "State of Florida" or "University" I&C. This designation is determined by the host institution at the inception of the center		
	2. Center ID Number	Identifies the code assigned to the center or institute as assigned by the BOG. If there is a discrepancy here please indicate this in the comments section of the spreadsheet.		
	3. Center Name	Identifies the C&I name		
	4. Center Status	Identifies the C&I activity status as "Active", "Inactive", or "Terminated/Disbanded" as of July 2023.		
	5. Established Year	Year the center was established		
	6. Total FY Expenditures	Total expenditures for all C&I's identified as active during the specified reporting term. Expenditure total should include contracts & grants, E&G state funds, trust funds, and fees for service.		
3-Additional I&C	7. Expenditures from State and E&G Funds	Total expenditures from E&G and/or state funds for all C&I's identified as active during the specified reporting term.		
	8. Expenditures from Contracts & Grants	Total expenditures from contracts and grants for all C&I's identified as active during the specified reporting term.		
	9. Expenditures from Fees for Service	Total expenditures from fees for services for all C&I's identified as active during the specified reporting term.		
	10. Expenditures from Private & Trust Funds	Total expenditures from private and trust funds for all C&I's identified as active during the specified reporting term.		
	11. Cumulative Total State Funds Received	I ofai state runds received since the center was created-Centers of Excellence only		
	12. Cumulative Total Non-State Funds Received	I oral non-state runds received since the center was created-Centers of Excellence only		
	13. FISCAL Year State Funds Received (FY2022-23)	rotar non-state runds received for the specified reporting term-Centers of Excellence only		
	14. FISCAL YEAR NON-State Funds Received (FY2022-23)	Total state funds received for the specified reporting term-Centers of Excellence only		

Contact Information		
Institution Name:	University of West Florida	
Preparer's Name:	Matthew Schwartz	
Preparer's Email:	mschwartz@uwf.edu	

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			I&C Information			Ex	penditure Informatio	n (Fiscal Year 2022-2	023)		Staff/Faculty (FY 2022-2023)	Evaluatio	on Information	
1. Institution Name	2. Center Type	3. Center Code	4. Center Name	5A. Center Status (Board Records)	5B. Center Status (Institution)	6.Total FY 2022-23 Expenditures	7. Expenditures: State & E&G	8. Expenditures: Contracts & Grants	9. Expenditures: Fees for Service	10. Expenditures: Private and Trust Funds	11. Staff / Faculty FTE	12. Year of Most Recent Evaluation	13. Year of Prior Evaluation	14. Rational for Missing Evaluations
University of West Florida	University	60.0030	Haas Center for Business Research and Economic Development (CBRED)	) Active	Active	558429.43	376064.58	142611.91	19141.82	20611.12	4.72	5 2012-13	2012-13	
University of West Florida	University	60.0070	Archaeology Institute	Active	Active	1039650.88	469846.83	542886.21	26917.84	5548.02	19.17	3 2020-21	2020-21	
University of West Florida	University	60.0090	Center for Environmental Diagnostics and Bioremediation (CEDB)	Active	Active	1323966.85	768515.83	454247.98	47473.8	10621.74	8.16	6 2016-17	2016-17	
University of West Florida	University	60.0100	Community Outreach Research and Learning Center (CORAL)	Active	Active	229.2	0	0	0	229.2	(	0 2016-17	2016-17	
University of West Florida	University	60.0200	Institute for Innovative Community Learning	Active	Active	3853.27	0	0	0	3853.27	(	0 2012-13	2012-13	
University of West Florida	University	60.0210	Florida Public Archaeology Network (FPAN)	Active	Active	1540708.78	1525897.1	0	335.34	14476.34	6.798	8 2020-21	2020-21	
University of West Florida	University	60.0230	Center for Cybersecurity	Active	Active	6386007.02	1195640.68	4907081.8	236787.39	32200.24	17.73	3 N/A	N/A	New Center
University of West Florida	State of Florid	a 60.9110	Florida Small Business Development Center Network (FSBDCN)	Active	Active	15022360.58	3989006.41	11028751.43	0	4602.74	17.188	8 2009-10	2009-10	
University of West Florida	University	60.9114	UWF Small Business Development Center (Affiliate)	Active	Active	1173750.87	817833.97	313402.43	0	42514.47	12.5	5 2012-13	2012-13	

#### **UWF Board of Trustees Meeting**

Academic Affairs Committee August 17, 2023

Issue/Agenda Recommendation:	New UWF Regulation – UWF/REG 5.070 Linking Industry to Nursing Education Fund				
Proposed Action:	Approval				

#### **Background Information:**

- The Linking Industry to Nursing Education (LINE) Fund allows for state universities to receive matching funds for every dollar contributed by a healthcare partner.
- The Board of Governors regulation (BOG Reg 8.008, Nursing Education), which governs the LINE funding, requires that Universities adopt regulations for the administration of the LINE Program.
- The proposed new UWF regulation is intended to fulfill this last requirement and is aligned to the requirements set forth in the BOG regulation.

#### **Implementation Plan:**

The proposed regulation would go into effect upon approval and would govern any current or future LINE funding at the University of West Florida.

Fiscal Implications: None

#### Supporting documents:

Notice of Proposed Creation of Regulation UWF/REG 5.070 Linking Industry to Nursing Education Fund

Prepared by:	David Bellar, Dean, Usha Kundu, MD College of Health
	850-474-2951, <u>dbellar@uwf.edu</u>

Presented by:

David Bellar, Dean

## THE UNIVERSITY OF WEST FLORIDA NOTICE OF PROPOSED CREATION OF REGULATION

**DATE:** June 7, 2023

**REGULATION TITLE AND NUMBER:** UWF REGULATION 5.070, Linking Industry to Nursing Education Fund

**PURPOSE AND EFFECT:** The purpose of this regulation is to implement BOG Reg. 8.008, Nursing Education, concerning Linking Industry to Nursing Education (LINE) funding.

SUMMARY: The new regulation is summarized as follows:

- The criteria for LINE funds are set forth by BOG Reg. 8.008, Nursing Education, and \$1009.8962, *Fla. Stat.*
- Funding proposal requirements are provided
- Reporting requirements are provided

**AUTHORITY TO CREATE THE REGULATION:** Florida BOG Reg. 1.001, University Board of Trustees Powers and Duties and Florida BOG Reg. 8.008, Nursing Education.

NAME OF UNIVERSITY OFFICIAL INITIATING PROPOSED REGULATION AMENDMENT: Gary Liguori, Provost

**COMMENTS CONCERNING THE PROPOSED REGULATION AMENDMENT SHOULD BE SUBMITTED WITHIN 14 DAYS OF THE DATE OF THIS NOTICE TO THE CONTACT PERSON IDENTIFIED BELOW**. In response, the University may solicit additional written comments, schedule a public hearing, withdraw or modify the proposed regulation amendment in whole or in part after notice, or proceed with adopting the regulation amendment. The comments must identify the regulation(s) on which you are commenting.

**THE PERSON TO BE CONTACTED REGARDING THE PROPOSED AMENDMENT TO THE REGULATION OR CHALLENGE:** Jessica Whittle, Paralegal, Office of the General Counsel at <u>jwhittle@uwf.edu</u> or 850-474-3420 or Office of the General Counsel, Building 10, 11000 University Parkway, Pensacola, Florida 32514.

**THE FULL TEXT OF THE REGULATION:** The full text of the proposed amendment to the regulation is attached below this Notice. The full text of the proposed amendment and existing regulation is also posted on UWF's website: <u>https://uwf.edu/offices/board-of-trustees/regulations/</u>



# Number:UWF/REG-5.070Title:Linking Industry to Nursing Education FundResponsibleDepartment:Office of the Provost

## I. General Statement

The Linking Industry to Nursing Education (LINE) Fund provides an opportunity for each state university to receive matching funds for every dollar contributed by a healthcare partner and is governed by the Board of Governors ("BOG") Regulation 8.008 and section 1009.8962, Florida Statutes, which set forth the criteria for the eligibility and use of LINE funds.

#### II. LINE Funding Proposals

LINE funding proposals may be submitted by the President or designee to the BOG Chancellor's office in accordance with the guidelines, formats, instructions, and schedule provided by the BOG Chancellor. Each LINE funding proposal should be approved by the Office of the Provost and identify and include the following:

- A. <u>The identity of the healthcare partner located and licensed to operate in the State of Florida</u> and with whom the University will partner;
- B. <u>Whether funds committed by the healthcare partner will contribute to an eligible purpose</u> set forth in the section 1009.8962 and BOG Reg. 8.008;
- C. <u>How the funds will be used, including how funds will be utilized to increase student</u> <u>enrollment and program completion;</u>
- D. <u>How the healthcare partner will onboard and retain graduates;</u>
- E. <u>How the funds will expand the University's nursing education programs to meet local,</u> regional, or state workforce demands; and
- F. If applicable, how funds will be used to expand the University's advanced education nursing programs and how the funds will increase the number of faculty and clinical preceptors and planned efforts to utilize the clinical placement process established in section 14.36, Florida Statutes.

## III. Reporting

The President or designee shall notify the BOG upon receipt of funds provided by the healthcare partner identified in an approved proposal before receiving dollar-for-dollar matching funds from the BOG's grant funds, subject to funds availability.

Annually, by February 1 of each year, if the University was awarded LINE Funds in the previous fiscal year, the President or designee shall submit a report to the BOG that demonstrates the expansion as outlined in the proposal, delineates the use of all funds (including contributions and matching funds), and otherwise provides the information, disaggregated by degree level set forth in BOG Reg. 8.008.

## IV. Further Guidance

The Office of the Provost may establish further detailed policies for LINE fund administration in accordance with applicable legal and regulatory authorities, policies, and applicable collective bargaining agreements.

Effective Date: [date]

- Authority: Section 7(d), Article IX, Florida Constitution BOG Reg. 8.008, Nursing Education
- **History:** Approved [date]

Last review: [date]

## **UWF Board of Trustees Meeting** Academic Affairs Committee

August 17, 2023

Issue/Agenda Recommendation:	New UWF Regulation – UWF/REG 2.001 Post-Tenure Review					
Proposed Action:	Approval of New Regulation					

#### **Background Information:**

- Florida Board of Governors Reg 10.003, Post-Tenure Faculty Review, requires that each tenured State University faculty member undergo a comprehensive post-tenure review to ensure high standards of quality and productivity among the tenured faculty in the State University System.
- Goals of the Post-Tenure Review are to: 1) recognize and honor exceptional achievement; 2) affirm continued academic professional development; 3) enable faculty members that have fallen below performance norms to pursue a performance improvement plan and return to expected levels of productivity; and 4) identify faculty members whose performance is unacceptable and inconsistent with professional standards.
- Tenured faculty will undergo post-tenure review in the fifth year following their last promotion or their last comprehensive review, whichever is later.
- The Provost shall make the final determination regarding recognition and/or compensation for those faculty members meeting or exceeding expectations.
- The proposed new UWF regulation is aligned to the requirements set forth in the BOG regulation.

#### **Implementation Plan:**

- The proposed regulation shall be effective upon approval.
- The five-year post-tenure review process will commence with the 2023-2024 academic year.
- The Provost shall report the outcomes of the post-tenure review process annually for the prior fiscal year to the President and the Board of Trustees.
- Beginning January 1, 2024, and continuing every three years thereafter, the University's Chief Audit Executive or designee must audit the post-tenure review process for the prior fiscal year. A final report of the audit must be presented to the Board of Trustees by the Provost or the Chief Audit Executive by July 1.

Fiscal Implications: None

## Supporting documents:

Amended Notice of Proposed Creation of Regulation UWF/REG 2.001 Post-Tenure Review

Prepared by:	Michelle Williams, Vice Provost
	850.474.2035, <u>mwilliams@uwf.edu</u>

Facilitator/Presenter: Michelle Williams, Vice Provost

## THE UNIVERSITY OF WEST FLORIDA AMENDED NOTICE OF PROPOSED CREATION OF REGULATION

**DATE:** July 10, 2023

**REGULATION TITLE AND NUMBER:** UWF REGULATION 2.001 Post-Tenure Review

**PURPOSE AND EFFECT:** The purpose of this new regulation is to implement a process in accordance with BOG Reg. 10.003, Post-Tenure Faculty Review.

#### SUMMARY:

- Provides a general statement
- Provides timing and eligibility for post-tenure review
- Provides review requirements
- Provides process requirements
- Provides potential outcomes
- Provides for monitoring and reporting

#### **AUTHORITY TO ADOPT THE REGULATION:**

BOG Regulation 10.003, Post-Tenure Faculty Review

**NAME OF UNIVERSITY OFFICIAL INITIATING PROPOSED REGULATION:** Gary Liguori, Provost

**COMMENTS CONCERNING THE PROPOSED REGULATION SHOULD BE SUBMITTED WITHIN 14 DAYS OF THE DATE OF THIS NOTICE TO THE CONTACT PERSON IDENTIFIED BELOW**. In response, the University may solicit additional written comments, schedule a public hearing, withdraw or modify the proposed regulation in whole or in part after notice, or proceed with adopting the regulation. The comments must identify the regulation(s) on which you are commenting.

**THE PERSON TO BE CONTACTED REGARDING THE PROPOSED REGULATION:** Jessica Whittle, Paralegal, Office of the General Counsel at <u>jwhittle@uwf.edu</u> or 850-474-3420 or Office of the General Counsel, Building 10, 11000 University Parkway, Pensacola, Florida 32514.

**THE FULL TEXT OF THE REGULATION:** The full text of the proposed regulation is attached below this Notice. The full text of the proposed regulation is also posted on UWF's website: <u>https://uwf.edu/offices/board-of-trustees/regulations/</u>



Number:UWF/REG-2.001Title:Post-Tenure ReviewResponsibleDepartment:Office of the Provost

## I. General Statement

The purpose of the Post-Tenure Review is to ensure high standards of quality and productivity among the tenured faculty in the State University System. All tenured faculty at the University of West Florida (the "University") are required to undergo a periodic post-tenure review. Post-tenure review is intended to recognize and honor exceptional achievement, affirm continued academic professional development, enable a faculty member who has fallen below performance norms to pursue a performance improvement plan and return to expected levels of productivity, and identify faculty members whose pattern of performance is unacceptable and inconsistent with professional standards.

### **II.** Timing and Eligibility

- A. Each tenured faculty member shall have a comprehensive post-tenure review of five years of performance in the fifth year following the last promotion or the last comprehensive review, whichever is later. For faculty hired with tenure, the hire date shall constitute the date of the last promotion.
- B. <u>Tenured faculty in administrative roles (chairs, directors, or higher) shall be reviewed</u> <u>annually by their supervisors. Upon returning to a 1.0 FTE faculty role, these faculty shall</u> <u>undergo post-tenure review by the fifth year following a return to a full-time faculty</u> <u>appointment.</u>

#### III. Review Requirements

Tenured faculty are expected to meet expectations associated with assigned duties in research, teaching, and service. Positive sustained contributions are expected in all assigned work areas. Percent effort in areas of assignment may vary as a career evolves. A decrease in effort and thus expectation in one category should be balanced with a concomitant increase in another category. Except in the case of significant other responsibilities, tenured faculty should retain a minimum of 10% (unless otherwise approved by the Provost) research, scholarship, or creative work.

A. <u>The comprehensive post-tenure review shall include consideration of the following:</u>

- 1. <u>The level of accomplishment and productivity relative to the faculty member's assigned</u> <u>duties in research, teaching, service, and other assignments including extension,</u> <u>clinical, and administrative assignments;</u>
- 2. <u>The faculty member's history of professional conduct and performance of academic responsibilities to the University and its students:</u>
- 3. <u>Any substantiated disciplinary actions in the personnel file including but not limited to</u> the faculty member's non-compliance with state law, BOG regulations, and University regulations and policies; Unapproved absences from teaching assigned courses; <u>Substantiated student complaints</u>; and Other relevant measures of faculty conduct as <u>appropriate</u>.
- B. <u>Criteria for rating faculty performance in work assigned shall be clarified by each college</u> and department in terms tailored to the college and department disciplines through departmental bylaws and consistent with University standards. The criteria for rating faculty performance shall be initiated by unit faculty with final approval of the Provost.

Rating categories for Post-Tenure Review shall include the following University-level guidance:

- 1. <u>Exceeds expectations a clear and significant level of accomplishment beyond the average performance of faculty across the faculty member's discipline and unit.</u>
- 2. <u>Meets expectations expected level of accomplishment compared to faculty across the faculty member's discipline and unit.</u>
- 3. <u>Does not meet expectations performance falls below the normal range of annual variation in performance compared to faculty across the faculty member's discipline and unit but is capable of improvement.</u>
- 4. <u>Unsatisfactory failure to meet expectations that reflect disregard or failure to follow</u> previous advice or other efforts to provide correction or assistance, or performance involves incompetence or misconduct as defined in applicable University regulations and policies.

## IV. Process Requirements

A. <u>The faculty member shall complete a dossier demonstrating performance relative to</u> <u>assigned duties over the previous five years, along with highlighting relevant</u> <u>accomplishments, and submit the dossier to the appropriate department chair (or individual</u> <u>responsible for conducting the annual evaluation, such as program director, or designated</u> <u>supervisor; hereafter referred to as "chair").</u>

- B. <u>The faculty member's chair shall review (1) the faculty member's university-designated</u> dossier of expectations and accomplishments, (2) the last five years of work assignments and annual performance reviews by the chair, and (3) the faculty member's disciplinary record in their personnel file covering the past five years.
- C. <u>The faculty member's chair shall provide a written assessment certifying the level of achievement and including, if applicable, any concerns regarding professional conduct, academic responsibilities, and performance during the period under review. The chair is not responsible for assigning a performance rating.</u>
- D. <u>The faculty member's chair shall forward the dossier</u>, work assignments and annual evaluations, and the chair's letter to the dean of the college for review.
- E. <u>The dean of the college shall only review the materials submitted by the candidate to the chair and the chair's letter.</u>
- F. The dean of the college shall add to the materials a brief letter assessing the level of achievement during the period under review. The letter shall include any concerns regarding professional conduct, academic responsibilities, and performance. The letter shall also include the dean's recommended performance rating using the criteria established by unit faculty and approved by the department head, dean, and Provost and the rating scale described above in section III.B.1.
- G. <u>The dean of the college shall forward the packet and recommendation to the Provost for review.</u>
- H. <u>The Provost shall review the packet and the recommendation provided by the dean of the college. The Provost may consult with an advisory committee.</u>
- I. With guidance and oversight from the University President, the Provost will rate the faculty member's professional conduct, academic responsibilities, and performance during the review period. The Provost may accept, reject, or modify the dean's recommended rating. Each faculty member reviewed will receive one of the performance ratings established in section III. B. 1. above.
- J. <u>The Provost shall notify the faculty member, the faculty member's chair, and the appropriate college dean of the outcome.</u>

## V. Outcomes

A. For each faculty member who receives a final performance rating of "exceeds expectations" or "meets expectations," the appropriate college dean, in consultation with the faculty member's chair, shall recommend to the Provost appropriate recognition and/or compensation in accordance with the faculty member's performance and University

regulations and policies. The Provost shall make the final determination regarding recognition and/or compensation.

- B. For each faculty member who receives a final performance rating of "does not meet expectations," the dean, in consultation with the faculty member and the faculty member's chair, shall propose a performance improvement plan to the Provost.
  - 1. The plan must include a deadline for the faculty member to achieve the requirements of the performance improvement plan. The deadline may not extend more than 12 months past the date the faculty member receives the improvement plan. The Provost shall make final decisions regarding the requirements of each performance improvement plan.
    - a. Faculty receiving a "does not meet expectations" rating on a Post-Tenure Review will enter into a performance improvement plan. The performance improvement plan will be developed by the chair in concert with the dean. The faculty member will be provided with an opportunity to provide input into the performance improvement plan. The performance improvement plan shall outline each of the areas needing attention and improvement. The performance improvement plan shall provide specific performance targets and a time period for achieving the targets not to extend more than 12 months past the date the faculty member receives the improvement plan. The performance improvement plan must be approved by the Provost. The chair will meet regularly with the faculty member to review progress toward meeting the performance targets. However, it is the responsibility of the faculty member to attain the performance targets specified in the performance improvement plan within the specified time frame and demonstrate competency in their position.
  - 2. Each faculty member who fails to meet the requirements of a performance improvement plan receives a final performance rating of "unsatisfactory" and shall receive a notice of termination from the Provost, pursuant to applicable University processes.

## VI. Monitoring and Reporting

A. Annual Report

The Provost shall report annually to the President and Board of Trustees ("BOT") the outcomes of the post-tenure review process for the prior fiscal year.

- B. <u>Audit</u>
  - 1. <u>Beginning January 1, 2024, and continuing every three years thereafter, the Chief Audit</u> Executive or designee must audit the post-tenure review process for the prior fiscal

year. A final report of the audit must be presented to the BOT by the Provost or the Chief Audit Executive by July 1.

- 2. <u>The audit report must include:</u>
  - a. <u>The number of tenured faculty in each of the four performance rating categories;</u>
  - b. <u>The University's response, if any, to each faculty member's rating in each category;</u> <u>and</u>
  - c. <u>Any findings of non-compliance with applicable state laws, BOG regulations, and</u> <u>University regulations and policies.</u>
- 3. <u>The BOT shall review the audit report at its next regularly scheduled meeting of the full board after the report is finalized by the Chief Audit Executive. The BOT shall consider the report and adopt it on its action item agenda.</u>
  - a. <u>If the University is in compliance, then a copy of the adopted audit report shall be provided to the BOG.</u>
  - b. <u>If the University is not in compliance, then the Chief Audit Executive must present</u> the report to the BOG at its next regularly scheduled meeting.

Effective Date: [date]

- Authority: BOG Regulation 10.003, Post-Tenure Faculty Review
- History: Adopted [date]
- Last review: [date]

#### **UWF Board of Trustees Meeting**

Academic Affairs Committee August 17, 2023

Issue/Agenda Recommendation:	Revised UWF Regulation – UWF/REG 3.040
	Textbook and Instructional Materials Affordability
Proposed Action:	Approval of Revised Regulation

#### **Background Information:**

- Florida Board of Governors Reg 8.003 Textbook and Instructional Materials Affordability and Transparency has been updated to require universities to maintain a database of required and recommended textbooks and instructional materials that is searchable by specified components and downloadable.
- The database must also include course syllabi for Gen Ed courses.
- The database must contain the required information for at least five academic years, starting with postings for the fall 2022 term.
- The revisions to UWF Regulation 3.040 Textbook and Instructional Materials Affordability incorporate these changes.

#### **Implementation Plan:**

- The proposed regulation shall be effective upon approval.
- The searchable database has been in place since summer 2022 to comply with BOG Regulation requirements that it be accessible starting with fall semester 2022.
- Links to the database are included as required in the UWF 2022-2023 Textbook Affordability Report.

Fiscal Implications: None

#### Supporting documents:

Notice of Proposed Amendment to Regulation UWF/REG 3.040 Textbook and Instructional Materials Affordability

BOG Regulation 8.003 Textbook and Instructional Materials Affordability and Transparency

Prepared by:	Michelle Williams, Vice Provost
	850.474.2035, <u>mwilliams@uwf.edu</u>
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## THE UNIVERSITY OF WEST FLORIDA NOTICE OF PROPOSED AMENDMENT TO REGULATION

**DATE:** July 18, 2023

**REGULATION TITLE AND NUMBER:** 3.040, Textbook and Instructional Materials Affordability

**PURPOSE AND EFFECT:** The purpose of this amendment is to include language from BOG Reg. 8.003, Textbook and Instructional Materials Affordability.

**SUMMARY**: The proposed amendment to this regulation is as follows:

- Added requirements for the list of required and recommended textbooks and instructional materials
- Added requirement to attach the syllabus for general education core courses that are subject to posting, as well as requirements for the contents of the syllabus
- Added compliance with the required components of the textbook and instructional materials list posting requirements as a reporting requirement
- Minor formatting and grammatical corrections

**AUTHORITY TO AMEND THE REGULATION:** BOG Reg. 1.001, BOG Reg. 8.003, and \$1004.085, Florida Statutes

**NAME OF UNIVERSITY OFFICIAL INITIATING PROPOSED REGULATION AMENDMENT:** Gary Liguori, Provost

**COMMENTS CONCERNING THE PROPOSED REGULATION AMENDMENT SHOULD BE SUBMITTED WITHIN 14 DAYS OF THE DATE OF THIS NOTICE TO THE CONTACT PERSON IDENTIFIED BELOW**. In response, the University may solicit additional written comments, schedule a public hearing, withdraw or modify the proposed regulation amendment in whole or in part after notice, or proceed with adopting the regulation amendment. The comments must identify the regulation(s) on which you are commenting.

**THE PERSON TO BE CONTACTED REGARDING THE PROPOSED AMENDMENT TO THE REGULATION OR CHALLENGE:** Jessica Whittle, Paralegal, Office of the General Counsel at <u>jwhittle@uwf.edu</u> or 850-474-3420 or Office of the General Counsel, Building 10, 11000 University Parkway, Pensacola, Florida 32514.

**THE FULL TEXT OF THE REGULATION:** The full text of the proposed amendment to the regulation is attached below this Notice. The full text of the proposed amendment and existing regulation is also posted on UWF's website: <u>https://uwf.edu/offices/board-of-trustees/regulations/</u>



# Number:UWF/REG-3.040Title:Textbook and Instructional Materials AffordabilityResponsibleDepartment:Office of the Provost

## I. General Statement:

The **Board of Trustees of The** University of West Florida <u>("UWF" or "University")</u> establishes the following regulation for minimizing the cost of textbooks to students while maintaining the quality of their educational experience and continuing to ensure academic freedom.

#### **II.** Selection of Textbooks and Instructional Materials

Textbook and instructional materials shall be adopted by the University through cost-benefit analyses that enable students to obtain the highest-quality product at the lowest available price, by considering:

- A. Purchasing digital textbooks in bulk;
- B. Expanding the use of open-access or Open Education Resources and instructional materials;
- C. Rental options;
- D. Affordable digital textbooks and learning objects;
- E. Mechanisms for assisting students in buying, renting, selling, and sharing textbooks and instructional materials;
- F. The length and of time that textbooks and instructional materials will remain in use;
- G. An evaluation of the cost savings for textbooks and instructional materials which students may realize if they are able to exercise opt-in provisions for the purchase of the materials; and
- H. The use of innovative pricing techniques and payment options for textbooks and instructional materials in consultation with providers including bookstores. The pricing techniques and payment options must include an opt-in provision for students and may be

approved only if there is documented evidence that the options reduce the cost of the textbooks and instructional materials.

#### III. Selection Procedures

A. Selection Deadline and Exceptions to Deadline

The Office of the Provost shall establish textbook and instructional material adoption procedures providing that textbooks and other instructional materials shall be adopted no later than forty-five (45) days prior to the first day of classes to allow sufficient time for the University <u>Bb</u>ookstore to work with publishers to confirm availability of the requested materials, source lower cost options, explore alternatives with faculty, and maximize the availability of used textbooks and instructional materials. Requests for an exception to the compliance deadline shall be submitted in writing to the Office of the Provost in accordance with the established textbook and instructional material adoption procedures and shall provide a reasonable justification for an exception. For courses added after the notification deadline or when an extension is granted, textbook information shall be posted immediately as such information becomes available. However, no exceptions shall be granted lass than forty five (45) days prior to the first day of class for each semester.

B. Bookstore Notification

Each instructor must provide the University bookstore with textbook and instructional material selection information for each course <u>he/she hasthey have</u> been assigned to teach as early as reasonably possible but no later than the deadlines established in this regulation. Such information must include:

1. Textbooks and Instructional Materials Not Required

Notification that no textbook or instructional materials will be required or recommended for the course, if applicable; or

- 2. Textbooks and Instructional Materials Required
  - a. Sufficient information detailing any and all textbooks and instructional material that the instructor will require students and/or recommend to students who are enrolled in the course to purchase;
  - b. A statement of the intent of the course instructor, or academic department offering the course, to use, during the term of the course, all instructional materials that the instructor is requiring students enrolled in the course to obtain; , including
  - c. <u>If a bundled package is required, a statement that the instructor intends to use each</u> individual item sold as a part of <u>a the</u> bundled package, unless the individual items

from the bundled package would cost more, if purchased separately, than the package as a whole; and

d. If the course instructor, or academic department offering the course, is selecting a new edition of a textbook or instructional material, a statement reflecting the determination by the course instructor or academic department of the extent to which the new edition differs significantly and substantively from earlier versions and the value to the student of changing to a new edition or the extent to which previous editions are acceptable and if open-access textbooks or instructional materials are available.

## **IV.** Posting Requirements

The University shall post prominently in the course registration system and on applicable website(s), as early as is feasible, but at least 45 days before the first day of class for each semester, a hyperlink to lists of required and recommended textbooks and instructional materials for at least 95 percent of all courses and course sections offered at the institution during the upcoming term. The Office of the Provost shall determine compliance with this requirement no later than forty five (45) days prior to the first day of classes for each semester. A course added less than forty five (45) days prior to the first day of classes is exempt from this notification requirement. The posted list shall include the following information for each required textbook:

- A. The International Standard Book Number (ISBN); or
- B. Other identifying information which that shall include, at a minimum:
  - 1. The title;
  - 2. All authors listed;
  - 3. Publisher(s) and edition number;
  - 4. Copyright date;
  - 5. Published date; and
  - 6. Other relevant information necessary to identify the specific textbook required for each course.
- C. In addition, the list of required and recommended textbooks and instructional materials <u>must:</u>

- 1. Be searchable by the course subject, course number, course title, instructor name, assigned textbook or instructional material title, and author of the assigned textbook or instructional material; and
- <u>1.2.Be easily downloadable by current and prospective students.</u>
- D. If a course subject to posting requirements is a general education core course option identified pursuant to Section 1007.25, Fla. Stat., the course syllabus must be included and contain the following:
  - 1. The course curriculum;
  - 2. The goals, objectives, and student expectations of the course; and
  - 3. How student performance will be measured.

The above information must remain posted in a public, searchable database for at least five academic years.

## V. Financial Aid

The Director of Student Financial Aid or designee shall publish on the University website the procedure through which students who cannot otherwise afford the cost of a textbook can obtain a textbook, including consideration of the extent to which an open-access textbook may be used, and shall publish on the University website the procedure through which students can obtain required textbooks prior to receipt of their financial aid distribution, when necessary.

## VI. Consultations

As dual enrollment agreements are made or reviewed, The Office of the Provost the appropriate office within the Division of Academic Affairs shall consult with school districts for which there are articulation agreements in place to help identify practices that impact the cost of dual enrollment textbooks and instructional materials to these districts, including, but not limited to, the length of time that textbooks and instructional materials remain in use.

## VII. Prohibitions

No employee of the University of West Florida may demand or receive any payment, loan, subscription, advance, deposit of money, service, or anything of value, present or promised, in exchange for requiring students to make specific purchases. However, subject to the requirements of the Florida Code of Ethics for Public Officers and Employees and both the outside activity requirements and conflict of interest restrictions set forth in the university's regulations, policies, and in collective bargaining agreements, and employee may receive:

- A. Sample or instructor copies of textbooks or other instructional resources. These materials cannot be sold if they are identified as samples and not for sale;
- B. Royalties or other compensation from the sales of textbooks that include the instructor's individual's own writing or work;
- C. Honoraria for academic peer review of course materials;
- D. Fees resulting from activities such as reviewing, critiquing, or preparing support materials for textbooks; and
- E. Training in the use of course materials and learning technologies.

## VIII. Reporting

The UWF Board of Trustees shall provide a report, by September 30 of each year, to the Chancellor of the State University System, in a format determined by the Chancellor, that details:

- A. The textbook and instructional materials selection process for high enrollment courses;
- B. Specific initiatives of the institution designed to reduce the costs of textbooks and instructional materials;
- C. Policies implemented regarding the posting of textbook and instructional materials for at least 95% of all courses and course selections 45 days before the first day of class;
- <u>D.</u> The number of courses and course sections that were not able to meet the posting deadline for the previous academic year;
- **D.E.** Compliance with the required components of the textbook and instructional materials list posting requirements; and
- **E.**<u>F.</u> Any additional information determined by the Chancellor.

## Effective Date: [date]

- Authority: BOG Reg. 1.001 BOG Reg. 8.003 §1004.085, Florida Statutes
- History: Adopted June 2010; amended September 2010, July 2017, September 2020, and [date].

Last review: [date]

### 8.003 Textbook and Instructional Materials Affordability and Transparency

- (1) Each university board of trustees shall adopt a regulation that establishes textbooks and instructional materials affordability policies to minimize the cost of required or recommended textbooks and instructional materials for students while maintaining the quality of education and academic freedom. The regulation shall provide for the following:
  - (a) Selection of textbooks and instructional materials through cost-benefit analyses that enable students to obtain the highest-quality product at the lowest available price by considering:
    - 1. Purchasing digital textbooks in bulk,
    - 2. Expanding the use of open-access textbooks and instructional materials,
    - 3. Providing rental options for textbooks and instructional materials,
    - 4. Increasing the availability and use of affordable digital textbooks and learning objects,
    - 5. Developing mechanisms to assist in buying, renting, selling, and sharing textbooks and instructional materials,
    - 6. The length of time that textbooks and instructional materials remain in use,
    - 7. An evaluation of cost savings for textbooks and instructional materials, which a student may realize if individual students are able to exercise optin or opt-out provisions for the purchase of the materials.
  - (b) The use of innovative pricing techniques and payment options for textbooks and instructional materials in consultation with providers, including bookstores. The pricing techniques and payment options must include an opt-in or opt-out provision for students and may be approved only if there is documented evidence that the options reduce the cost of the textbooks and instructional materials.
  - (c) A deadline for the selection of textbooks and instructional materials each term that shall provide sufficient lead time for bookstores to confirm availability, source lower-cost options, explore alternatives with faculty, and maximize the availability of used textbooks and instructional materials.
  - (d) A procedure to document the intent of the course instructor or the academic department offering the course to use all items ordered, including each individual item sold as part of a bundled package, before the selection is finalized.
  - (e) A determination by the course instructor or academic department offering the course, before a textbook or instructional material is selected, of the extent to which a new edition differs significantly and substantively from earlier versions and the value to the student of changing to a new edition or the extent to which an open-access textbook or instructional material is available.
  - (f) A procedure(s) to make required and recommended textbooks and instructional materials for each course offering available to students who otherwise cannot afford the cost of the textbook, including consideration of the extent to which an open-access textbook or instructional material may

be used.

- (g) A procedure(s) by which students can obtain required textbooks and instructional materials prior to receipt of their financial aid distribution, when necessary.
- (h) A deadline for posting a hyperlink to lists of required and recommended textbooks and instructional materials for at least 95 percent of all courses and course sections offered for the upcoming term in the university's course registration system and on the university's website. The designated university official shall determine compliance with this requirement no later than forty-five (45) days prior to the first day of classes for each term. Any request for an exception to the compliance deadline shall be submitted in writing to the designated university official and shall provide a reasonable justification for an exception. A course or section added after the notification deadline is exempt from this notification requirement. The list of required and recommended textbooks and instructional materials must:
  - Include the International Standard Book Number (ISBN) or other identifying information, which must include, at a minimum, all of the following: the title, all authors listed, publishers, edition number, copyright date, published date, and other relevant information necessary to identify the specific textbooks or instructional materials required and recommended for each course.
  - 2. Be posted as early as is feasible but at least 45 days before the first day of class for each term.
  - 3. Be searchable by the course subject, the course number, the course title, the name of the instructor of the course, the title of each assigned textbook or instructional material, and each author of an assigned textbook or instructional material.
  - 4. Be easily downloadable by current and prospective students.
  - 5. If a course subject to 1(h) is a general education core course option identified pursuant to section 1007.25, Florida Statutes, the course syllabus must be included and contain the following.
    - a. The course curriculum.
    - b. The goals, objectives, and student expectations of the course.
    - c. How student performance will be measured.
  - 6. Starting with postings for the fall 2022 term, the above information must remain posted in a public, searchable database for at least five academic years.
- (i) Consultation with school districts to identify practices that impact the cost of dual enrollment textbooks and instructional materials to school districts, including, but not limited to, the length of time that textbooks and instructional materials remain in use.
- (2) No employee of a state university may demand or receive any payment, loan, subscription, advance, deposit of money, service, or anything of value, present or promised, in exchange for requiring students to purchase a specific textbook or instructional materials for coursework or instruction. However, an employee may

receive, subject to the requirements of the Florida Code of Ethics for Public Officers and Employees and the outside activity and conflict of interest requirements set forth in university regulations and collective bargaining agreements:

- (a) Sample copies, instructor copies, or instructional materials. These materials may not be sold for any type of compensation if they are specifically marked as free samples, not for resale.
- (b) Royalties or other compensation from sales of textbooks or instructional materials that include the instructor's own writing or work.
- (c) Honoraria for academic peer review of course materials.
- (d) Fees associated with activities such as reviewing, critiquing, or preparing support materials for textbooks or instructional materials.
- (e) Training in the use of course materials and learning technologies.
- (3) Each university board of trustees shall provide a report, by September 30 of each year, to the Chancellor of the State University System, in a format determined by the Chancellor, that details:
  - (a) The selection process for high enrollment courses,
  - (b) Specific initiatives of the institution designed to reduce the costs of textbooks and instructional materials,
  - (c) Policies implemented regarding the posting of textbook and instructional materials for at least 95% of all courses and course sections 45 days before the first day of class,
  - (d) The number of courses and course sections that were not able to meet the posting deadline for the previous academic year,
  - (e) Compliance with the required components of the textbook and instructional materials list in (1)(h), and
  - (f) Any additional information determined by the Chancellor.
- (4) The Chancellor will report to the Board of Governors a summary of the State University System's initiatives and efforts addressing textbook and instructional materials affordability by November 1 of each year.

Authority: Section 7(d), Art. IX, Fla. Const.; Section 1004.085, Florida Statutes; History: New 03-26-09, Amended: 11-03-16, 10-30-19, 9-16-20, 08-26-22.

#### UWF Board of Trustees Meeting

Academic Affairs Committee

August 17, 2023

Issue/Agenda Recommendation:	2023 UWF Textbook and Instructional Materials Affordability Annual Report
Proposed Action:	Approval

#### **Background information:**

Pursuant to the Florida Board of Governors Regulation 8.003, each university must submit a Textbook and Instructional Materials Affordability Annual Report to the Chancellor of the State University System by September 30 each year.

- The University evaluated the cost for each course section, finding that 56% of all Fall 2022 course sections and 57.5% of all Spring 2023 course sections had instructional materials of no cost or low cost (\$20 or less per credit hour) to students.
- University efforts to reduce the cost of textbooks and instructional materials include using OERs (Open Educational Resources), test-piloting textbooks, deferring adoption of new editions where little substantive change exists, faculty development of their own course materials, and utilizing current online sources in place of textbooks. Follett Access allows digital course materials to be downloaded directly to the Learning Management System for immediate student access at a reduced cost. University Libraries continues to offer access to required print textbooks, resulting in students borrowing 3,942 textbooks 7,024 times in 2022-23.
- The state sets a compliance threshold at 95% for posting textbook and instructional materials 45 days prior to the first day of classes. UWF had a Fall 2022 compliance rate of 100% and a Spring 2023 compliance rate of 100%.

Implementation Plan:	Report to be submitted to the BOG by September 30, 2023.
Fiscal Implications:	None

#### Supporting documents:

2023 UWF Textbook and Instructional Materials Affordability Annual Report

Prepared by:	Michelle Williams, Vice Provost 850.474.2035, <u>mwilliams@uwf.edu</u>	
Facilitator/Presenter:	Michelle Williams, Vice Provost	

Textbook and Instructional Materials Affordability Annual Report		
Fall 2022 and Spring 2023		
University Submitting Report: University of West Florida		
Date Approved by the University Board of Trustees: September 14, 2023		
Signature of Chair, University Board of Trustees:		
Signature of Vice President for Academic Affairs:		
Signature of President:		

#### Textbook and Instructional Materials Affordability Annual Report

#### Instructions

- 1. Complete each tab/worksheet as designed. The template reflects the interpretation of the reporting requirements by Board staff.
- Do not edit the content of the template. Expand the response space as needed.
- 2. Statutory due date is September 29, 2023.
- 3. If there are questions, contact Kirsten Harvey Director of Student Success & Workforce Alignment, at Kirsten Harvey@flbog.edu
- 4. Include the university contact name and email for the staff who completed the report below:
- 5. Please note some cells are auto-calculated and do not require you to enter a figure. These cells are green.
- University Contact Name and Email: Michelle Williams, mwilliams@uwf.edu / Karen Rasmussen, krasmuss@uwf.edu

#### Textbook and Instructional Materials Selection Process

Report the textbook and instructional materials selection process used for general education courses with high enrollment. Include the course prefix(es) and number(s), the course title(s), and the total number of courses (*n*=). In column "F," use the drop-down arrow in each cell to select the appropriate selection process. The methodology for determining high enrollment courses is as follows: Order courses (course prefix/number) by headcount enrollment, excluding honors courses. The top 10% of courses are determined as high enrollment.

General Education Courses with High Enrollment						
Course Nur	Prefix & nber	Course Title		Total Number of Course Sections (n =)	Selection Process	If "other," describe
STA	2023	Elements Of Stat		16	Department Committee	
ENC	1102	English Comp II		36	Department Committee	
ENC	1101	English Comp I		33	Department Committee	
PSY	2012	General Psychology		14	Individual Faculty	
LIT	2000	Introduction to Literature		20	Individual Faculty	
CHM	2045	General Chemistry I		21	Department Committee	
AMH	2020	U.S. Since 1877		13	Individual Faculty	
POS	2041	American Politics		15	Individual Faculty	

#### Course Sections with No Cost for Textbooks/Instructional Materials

Report the total number of course section(s) offered including exceptions and the total number of course sections that did not require or recommend the purchase of a textbook(s)/ instructional materials and/or utilized open educational resources. These may include general education courses, upper level courses, and courses for directed independent study, internships, thesis/dissertation, etc.

	Fall 2022
Total Number of Course Sections Offered (Including Exceptions)	2533
Total Number of Course Sections Offered with No Cost Materials	1127
Percent of Course Sections with No Cost Materials (Auto-Calculated)	44%

Spring 2023		
Total Number of Course Sections Offered (Including Exceptions)	2540	
Total Number of Course Sections Offered with No Cost Materials	1173	
Percent of Course Sections with No Cost Materials (Auto-Calculated)	46%	

#### **Board Action Plan - Low Cost Course Materials**

Report the total number of course section(s) offered including exceptions and the total number of course sections that required or recommended textbook(s)/instructional materials for \$20 or less per credit hour (e.g., \$60 or less for a three-credit-hour course), which meets the State University System of Florida Action Plan for the Pricing of Textbooks and other Instructional Materials.

Fall 2022		
Total Number of Course Sections Offered (Including Exceptions)	2533	
Total Number of Course Sections Offered with the Cost of Materials at \$20 or less per credit hour	1712	
Percent of Course Sections Offered with the Cost of Materials at \$20 or less per credit hour (Auto-Calculated)	68%	

Spring 2023		
Total Number of Course Sections Offered (Including Exceptions)	2540	
Total Number of Course Sections Offered with the Cost of Materials at \$20 or less per credit hour	1741	
Percent of Course Sections Offered with the Cost of Materials at \$20 or less per credit hour (Auto-Calculated)	69%	

#### **Textbook & Instructional Materials Affordability Initiatives**

#### Describe specific initiatives of the institution designed to reduce the costs of textbooks and instructional materials.

#### College of Business (COB)

-When allowable, COB faculty participate in the Follett Access program providing cheaper textbooks for students on day one of classes.

Faculty in Accounting agreed to pilot test a textbook in ACG 6177 in the Fall of 2022; as a result, students will have free electronic access to the textbook.

-Four faculty members teaching the Intermediate Accounting courses delayed the adoption of the new edition of the textbook for the courses due to there being no substantive changes in the new edition. This allowed students to purchase used books at a lower cost while still retaining access to the online homework resources.

-Faculty member for ACG6805 do not use a textbook as the class is taught as a seminar course.

In both ACG 4651 Auditing and ACG 6856 Advanced Auditing, one faculty member has authored his own course material based on publicly-available professional standards on auditing and assurance services. He provides the students with an Adobe PDF file with all the materials. If a student chooses to print the materials, the cost at Office Depot or similar entity would be about \$50 - a significant savings over publisher textbooks.

-In ACG 6405, the faculty member uses two cases he published on two different topics that they believe should be covered in the class but are not addressed in the textbook; in doing so, they save the students from having to pay for an additional textbook for content coverage.

#### Hal Marcus College of Science and Engineering

-The Physics Department has switched to electronic versions of textbooks for all general education courses.

-The AST1002 course is now using the OpenStax OER textbook supported by ExpertTA for homework.

-Both PHY2048 and PHY2049 are using the Inclusive Access model for textbook distribution.

-The Electrical and Computer Engineering Department is using electronic and custom-print (print only chapters needed) versions of a textbook for their EEL4834 course.

-The Earth and Environmental Sciences Department is switching to a free, open source textbook for their EVR2001 course.

#### Usha Kundu, MD College of Health

-Psychology faculty are choosing online versions of textbooks which greatly reduces the textbook costs.

-Two Psychology faculty members are using OERs in their PSY2012 and PSY3213 courses. Rather than requiring students to purchase the APA Manual, Psychology faculty are utilizing the UWF BibliU subscription to provide student access to the APA manual.

-Medical Laboratory Sciences reuses textbooks for at least 2 and sometimes 3 times in major courses.

-Nursing is using a textbook bundle for the majority of our nursing textbooks for TBSN. These textbooks are used in six nursing courses for the entire length of the nursing program. -Nursing is currently working to reduce the items in the Nursing supply kit students purchase (PSK kit) to reduce costs to the student.

-Nursing uses OERs in several courses across both undergraduate and graduate programs.

HSA continues to pursue initiatives that reduce textbook costs for our students. This year, 3 HAS faculty, Drs. Nelson, Jackman, and Valaitis are developing OER Pressbooks for their courses.

#### **College of Education and Professional Studies**

-Instructional Design & Technology-Our primary cost savings initiative with textbooks is to utilize current literature, available from online sources (library, OER, etc.) in place of textbooks. We also use single books, such as edited handbooks or major works, across multiple courses in a single program, directing students to keep their books for future use. -Administration & Law-Normally, the Legal Research and Writing students have access to a Westlaw subscription for the course. However, I saw over the summer that the Westlaw provided to students via the library database site would be sufficient. I let the library know they could cancel the advanced Westlaw subscription. The librarian told me that my decision saved the library about \$14,000.

-School of Educataion-Combination of No Text Required, Uses OERs; Previous editions of texts can be used or available electronically; reduce the number of textbooks; Text can be checked out in library, PDFs used; primary text used in other courses; use of etexts; text is rentable.

#### College of Arts, Social Sciences and Humanities

-Department of Government students are reminded at the beginning of each semester that copies of all assigned undergraduate textbooks are available at the Library for checkout. -The Department of History and Philosophy Textbook Affordability Measures:

-Participates in the pilot of iBibliu (https://bibliu.com/app/#/signinPage), which gives students free access to textbooks in electronic format.

-Uses free, online textbooks like American Yawp (https://www.americanyawp.com/) for AMH 2020.

-Uses cheaper textbooks with accompanying online learning programs.

-Uploads articles, chapters, and documents to Canvas that the students access for free.

-Makes students aware that Pace Library has copies of course textbooks on reserve.

-Multiple professors use and/or have developed OER materials for courses.

-Department of Anthropology instructors utilize OER materials for some classes, often with no textbook, and Forensic Anthropology uses a textbook for which the library holds an institutional license, meaning students can access the ebook for free.

-Department of English provides textbooks through Canvas whenever possible, particularly since many of the books used (such as in literature classes, for example) are over 70 years old and available digitally. English has also developed its own Freshman Composition textbook, which is sold through the bookstore but at less than half the cost of what would be usual for books for two classes.

-Department of Art and Design Textbook Affordability Measures:

-Students are encouraged to use online textbooks and other resources.

-Students are provided with free downloadable class materials.

-Most studio art professors do not assign text books, but rather supply open source material.

-Two of the three art history professors encourage/rely on texts on reserve at the library, urging students to scan to pdf within the legal limits.

-In upper level Art History courses the assigned readings are freely accessible sources (journal articles, scanned chapters, etc) and are provided for students by the instructor, though a more generalized book to cover the entire semester may be used as well. For these, instructors shop around for reliable, yet lower cost, sources.

-In the few Art History classes where a textbook (ARH2050, 2051, and 3590) is big, bulky, and expensive, the two professors have designed the courses so that all three classes use the same book. While this book may represent a significant cost up front, it saves the students who major in the BA Studio, BA Art History, BFA from having to buy a new book each semester. In addition, a low cost alternative is provided for students who will only be taking 1 or 2 of the above sequence.

-Our large format class ARH2000 went full OFR years ago

#### Department of Communication Textbook Affordability Measures:

-SPC2068 (Public Speaking) faculty hold annual conversations about the textbook for all sections of this class. Cost is among the top concerns in these conversations, and the current book was chosen in part because of its value.

-Several undergraduate and graduate courses use open access sources and reading accessible via UWF databases for their course materials in lieu of adopting a textbook (JOU6115, Tubbs, Spring2023 is one example).

- Faculty are reminded each semester to include a statement that required textbooks are available at Pace Library.

-Faculty actively request textbook scholarships from the bookstore when they hear that students are in need.

-Chair and faculty work with Pace Library to identify books that are accessible through BiblioU - these eBooks are placed directly into qualifying courses' Canvas sites for free student access.

-Department advocates for computer lab licensing of essential software programs so that students do not need to purchase subscriptions.

-Faculty are encouraged to order older versions of textbooks that might have more used copies available, and to place those book adoptions early so that the bookstore has a greater chance of securing used copies.

Department of Theatre Textbook Affordability Measures:

-Uses online textbook resources.

-Encourages students to use copies of textbooks on file at the Library.

-Uses downloadable plays for Script Analysis and Dramatic Literature courses.

-Currently researching new textbooks and their online versions for THE 2000 Theatre Experience and Theatre History courses (both of these use older texts that have many editions, which has helped offset the cost for students over the years).

School of Music Textbook Affordability Measures:

-Encourages students to utilize music that is in the public domain, which much of classical repertoire is, rather than purchasing repertoire or methods books for applied classes and lessons. School of Music library also has a large collection of sheet music and music students are encouraged to look there first.

-School of Music purchases music for major ensembles so no cost is passed on to the students in any ensemble.

-Conducting class is working on making its own workbook and not utilizing an outside text that has to be purchased.

-Instrumental methods is switching from a textbook that costs 100 to one that costs 30.

-Vocal Pedagogy and Vocal Literature use a textbook that can be bought for a reasonable price on Amazon or other retailers.

#### **University Libraries**

-The University Libraries continue to offer access to required undergraduate print textbooks with dedicated funding provided by the Provost's Office. Students had access to 3,942 textbooks and borrowed them 7,024 times during the 2022-2023 academic year. Using the average acquisition cost per textbook from FY2023 (\$80.30), the transaction value of the UWF textbook affordability program was \$564,027.

-The library has a subscription to Pressbooks, an OER textbook and monograph authoring tool, which we host for faculty and staff use. Faculty/staff members are encouraged to take advantage of this resource to adapt or create OER texts. Since our initial subscription, we have openly published three textbooks, and incorporated two others into Canvas. -Medical Terminology for Healthcare Professions – student savings \$70,000

-Mental Health is a Verb – student savings \$8,000

-Transcendent Realities - student savings \$30,000

-Guidebook for Teaching Students Receiving Special Education Services student savings \$11,00

-Leading Change in Health Systems: Strategies for RB-BSN students (published April 2023)

-In the upcoming 2023 summer session, we have plans to publish eight additional textbooks. Throughout the 2022/23 academic year, these texts have attracted an impressive number of global visitors, surpassing 300,000. Moreover, they have significantly contributed to cost savings for students, reducing textbook expenses by over \$118,000. The positive impact of these resources on both accessibility and affordability underscores the value they bring to our academic community. By providing access to Pressbooks and supporting faculty in utilizing it effectively, we continue to promote open education and enhance the educational experience for our students. The success we have witnessed thus far fuels our commitment to fostering an environment that embraces innovative approaches to teaching and learning.

In close partnership with the Provost's Office and CTLT, the Faculty Open Educational Resources Awards were offered again. Stipends were offered in 3 categories: \$500 to adopt an existing OER for use in Fall 2022 and/or Spring 2023 as a required textbook; \$2,000 to adapt an existing OER and publish using the Pressbooks publishing platform for use in 2023 as a required textbook; \$4,000 to develop an original OER using the Pressbooks publishing platform for use in Fall 2023 or 2024 as a required textbook; and \$500 mentoring stipends. Three stipends to adapt an existing OER were awarded. The anticipated cost savings to students for the adapted OER textbooks is between \$44,395 and \$81.595; the anticipated cost savings for the original OER textbooks is between \$99,780 and \$107,777.

## Has the *opt-in* provision been implemented by your institution for the purchase of student materials? If yes, describe the impact this has this had on student savings, if any.

## Has the *opt-ou*t provision been implemented by your institution for the purchase of student materials? If yes, describe the impact this has this had on student savings, if any.

Based on the percentage of student participation in opt-in provision courses versus opt-out provision courses, more students participated in the Access program when the opt-out provision was implemented. This resulted in an increase in the number of students saving money on their course materials, an average of 27% compared to traditional materials.

#### University Policies for the Posting of Textbooks and Instructional Materials & Compliance with the Posting Deadline

Describe policies implemented to ensure the posting of textbooks and instructional materials for at least 95% of all courses and course sections 45 days before the first day of class.

Messaging to faculty, college administrators about textbook orders begins as soon as courses are entered into the system for an upcoming semester. Each College has a textbook liaison who works with chairs regarding textbook orders. The Bookstore works closely with the Vice Provost to provide up-to-date and timely information about textbook status -- from identifying courses with no identified instructional materials. The schedule for documentation includes notices of: 90 days (courses with no information); 75 days (courses with no information) and 67 days (courses with no information). Between 90 and 45 days, the Bookstore also provides weekly updates on orders to the Vice Provost who distributes the information to College textbook liaisons. On day 90, the Bookstore sends to all faculty instructions on how to the beginning of a term. Student can access required textbooks either by their UWF ID where all their course materials are presented or by course identifier.

Are the policies effective in meeting the reporting requirement? If not, what measures will be taken by the university to increase faculty and staff compliance for meeting the reporting requirement?

The policies are effective and have enabled the development of processes that support meeting the reporting requirement. For example, in Spring 2023, there was 100% compliance for the Summer 2023 course offerings -- which we realize is not included in reporting requirements, but serves as an indicator of how new policies are working. The partnerships between and among the Provost's Office, the Colleges, and the Bookstore provide timely information and assistance, supporting faculty in their determination of textbooks and instructional materials. For Fall 2023, the same policies were followed for a 100% compliance at Day 45 prior to term.

#### Published List of Required and Recommended Textbooks and Instructional Materials

Please use the drop-down options to confirm the published list of required and recommended textbooks and instructional materials includes the following information.

Information Required	Affirm Information is Included
International Standard Book Number (ISBN) or Other Identifying Information	Included
Title	Included
All Authors Listed	Included
Publishers	Included
Edition Number	Included
Copyright Date	Included
Published Date	Included

#### Published Course Syllabus Requirements

Please use the drop-down options to confirm the course syllabus of the general education core course options identified pursuant to section 1007.25, Florida Statutes include the following information.

Information Required	Affirm Information is Included
Course Curriculum	Included
Goals, Objectives, and Student Expectations of the Course	Included
How Student Performance will be Measured	Included

#### Link to Published List of Required and Recommended Textbooks and Instructional Materials

Please provide a link to the webpage housing the information listed under "Published List of Required and Recommended Textbooks and Instructional Materials.". If each course section has its own website link, please provide one example link.

Please Provide Link Below

https://www.bkstr.com/westfloridastore/home

#### Link to Published List of Course Syllabi for General Education Courses

Please provide links to the webpages housing the information under "Published Course Syllabus Requirements."

As students register for class, they can access course syllabi through "Classmate" -an institutional resource that contains comprehensive information about courses. Public searches for general education syllabi is based on term courses where information on syllabi and textbooks are included.
Searchable by Course Subject, Course Number, Course Title, Name of Instructor, Title of Material, and Author(s) of Material	Included
Material Information is Easily Downloadable by Current and Prospective Student	Included

Please Provide Links Below						
Communication	https://apps.banner.uwf.edu/StudentRegistr ationSsb/ssb/term/termSelection?mode=sea rch					
Humanities	https://apps.banner.uwf.edu/StudentRegistr ationSsb/ssb/term/termSelection?mode=sea rch					
Mathematics	https://apps.banner.uwf.edu/StudentRegistr ationSsb/ssb/term/termSelection?mode=sea rch					
Natural Sciences	https://apps.banner.uwf.edu/StudentRegistr ationSsb/ssb/term/termSelection?mode=sea rch					
Social Sciences	https://apps.banner.uwf.edu/StudentRegistr ationSsb/ssb/term/termSelection?mode=sea rch					

#### Exceptions

Per Board of Governors Regulation 8.003(1)(h), Textbook and Instructional Materials Affordability, any request for an exception to the compliance deadline shall be submitted in writing to the designated university official and shall provide a reasonable justification for an exception. A course or section added after the notification deadline is exempt from this notification requirement.

Fall 2022							
Total # of Course Sections (Not Including Exceptions)	# of Course Sections Identified As Exceptions	Total # Of Course Sections Including Exceptions (Column A + Column B) (Auto-Calculated)	% Of Total Course Sections That Were Identified As Exceptions (Auto-Calculated)	Reasons For Exceptions			
2504	29	2533	1%	Incorrect titles adopted (4) Different title version added (1) Edition Change (16) New Instructor (8)			

Spring 2023									
Total # Of Course Sections (Not Including Exceptions)	# Of Course Sections Identified As Exceptions	Total # Of Course Sections Including Exceptions (Column G + Column H) (Auto-Calculated)	% Of Total Course Sections That Were Identified As Exceptions (Auto-Calculated)	Reasons For Exceptions					
2524	16	2540	1%	Instructor- Department related/Substitution (8) Delivery Change (3) Wrong Title/Not Submitted (4) Edition-Related (1)					

#### University Requirements for the Posting of Textbooks and Instructional Materials & Compliance with the Posting Deadline

Please use the tables below to report the total number of course sections offered at the 45-day posting deadline, the number of course sections that met the posting requirement, the number of course sections that changed materials after the posting deadline, and the number of course sections that did not meet the posting requirement.

Fall 2022						Sprin	g 2023				
Total Course Sections at the 45 Day Posting Deadline (Not Including Exceptions)	# Of Course Sections Meeting Requirement (Not Including Course Sections That Changed Adopted Materials After The Deadline)	% Of Course Sections Meeting Requirement (Auto-Calculated)	# Of Course Sections That Changed Adopted Course Materials After The Required Posting Deadline	# Of Course Sections Not Meeting Requirement (Including Course Sections That Changed Adopted Materials After The Deadline)	% Of Course Sections Not Meeting Requirement (Auto-Calculated)	Total Course Sections at the 45- Day Posting Deadline (Not Including Exceptions)	# Of Course Sections Meeting Requirement (Not Including Course Sections That Changed Adopted Materials After The Deadline)	% Of Course Sections Meeting Requirement (Auto-Calculated)	# Of Course Sections That Changed Adopted Course Materials After The Required Posting Deadline	# Of Course Sections Not Meeting Requirement (Including Course Sections That Changed Adopted Materials After The Deadline)	% Of Course Sections Not Meeting Requirement (Auto-Calculated)
2,432	2,432	100%	311	29	1.19%	2,402	2,402	100.00%	37	16	0.67%

\*\*Note: Per Board Regulation 8.003 (1) (h), a course or course section added after the posting requirement is considered an exception and should be reported on the "Exceptions" tab. A request for any other exception to the compliance deadline shall be submitted in writing to the designated university official and shall provide a reasonable justification for an exception. A course or section added after the notification deadline is exempt from this notification requirement.

# INFO-1 Informational Item

### **UWF Board of Trustees Meeting**

Academic Affairs Committee August 17, 2023

Issue/Agenda Recommendation:	Summary of Degree Program Changes Approved during the period July 1, 2022, through June 30, 2023
Proposed action:	Informational

## **Background information:**

This item provides the Board of Trustees a summary of degree program changes approved through the University governance process during the period July 1, 2022, through June 30, 2023.

## 2022-2023 degree program changes were as follows:

Actions requiring Board review and approval

- New programs 0
- Deleted programs 0
- Significantly modified programs 0

## Actions not requiring Board review and approval

- New specializations within existing degree programs 9
- Deleted specializations within existing degree programs 6
- Modified specializations 78
- New minors 0
- Deleted minors 0
- Modified minors 9
- New courses added 100
- Reinstated courses 15
- Modified courses 431
- Deleted courses 63
- Purged courses from 5-year purge process 63

### **Implementation Plan:**

UWF follows established timelines and policies of the University governance process, Board of Trustees, and Board of Governors regarding academic program development.

**Fiscal Implications:** Addressed at time of program approval.

# Supporting documents:

New and Deleted Programs – Faculty Senate Actions 2022-2023 5-Year Course Purge List – Courses Deleted from the 2023-2024 Catalog

Prepared by:	Michelle Williams, Vice Provost			
	850.474.2035, <u>mwilliams@uwf.edu</u>			
Facilitator/Presenter:	Michelle Williams, Vice Provost			

# NEW AND DELETED PROGRAMS

Faculty Senate Actions 2022-2023

Compiled by Emily Teets, Senior Coordinator, Registrar's Office, with assistance from Enrollment Affairs.

	CIP		DEODEE	APPROVAL				
COLLEGE	CODE		DEGREE	DATE				
PROGRAM LEVEL (Requires Board of Trustees Action)								
New Programs								
None								
Deleted Programs								
None								
PROGRAM LEVEL (Board of Truste New Specializations	es Actio	on Not Required)						
Arts, Social Sciences, Humanities	9.0102	Digital Storytelling and Journalism	BA	4/25/2023				
Arts, Social Sciences, Humanities	9.0102	Advertising, Public Relations, and Social Media	BA	5/2/2023				
Education, Professional Studies	52.0206	Sport Administration	MSA	5/5/2023				
Education, Professional Studies	13.0501	Accelerated Bachelors (BS) in IDT to Masters (MEd) in IDT	BS	5/5/2023				
Business	52.0201	Executive MBA: Leadership Practice and Purpose	MBA	5/12/2023				
Business	52.0201	Executive MBA Common Content (Description)	MBA	5/12/2023				
Business	52.0301	Accelerated Bachelor's (BSBA in Accounting) to Master's (MAcc)	BSBA	5/4/2023				
Health	51.3801	Direct Entry MSN	MSN	5/16/2023				
Health	51.0000	Behavior Analysis Specialization	BS	5/18/2023				
Deleted Specializations								
Arts, Social Sciences, Humanities	54.0101	Public History	MA	4/21/2023				
Arts, Social Sciences, Humanities	54.0101	Early American Studies	MA	4/21/2023				
Business	52.0901	Global Hospitality and Tourism (Core)	BSBA	4/21/2023				
Business	52.0901	Global Hospitality and Tourism BSBA Common Content (Description)	BSBA	4/21/2023				
Business	52.0901	Global Hospitality and Tourism: Revenue Management and Predictive Analytics	BSBA	4/21/2023				
Health	42.0101	Applied Experimental	MA	5/10/2023				
Added Minors								
None								
Deleted Minors								
None								

78 Specializations were modified.

9 Minors were modified.

100 New courses were added.

15 Courses were reinstated

431 Courses were modified.

63 Courses were deleted.

63 Courses were purged from 5-year purge process.

#### 5-Year Course Purge List Courses Deleted from the 2023-2024 Catalog

College	Department	Course	Course Title	Material or Supply Fees
CASSH	Art and Design	ART 3737C	Advanced Sculpture: Non-Place	YES
CASSH	Art and Design	ART 3827C	Conceptual Research and Development	NO
CASSH	Communication	COM 3948	Service Learning Field Study II	NO
CASSH	Communication	JOU 3300	Feature Writing	NO
CASSH	English	ENL 4203	Old English Language	NO
CASSH	Government	CPO 4774	Radicalism and Extremism	NO
CASSH	Government	CPO 4792	Geopolitics	NO
CASSH	Government	INR 5316	Grand Strategy in International Relations	NO
CASSH	Government	INR 5547	War and Peace in East Asia	NO
CASSH	Government	CPO 5779	Radicalism and Extremism	NO
CASSH	Government	POT 5602	Modern Masters of Political Thought	NO
CASSH	History and Philosophy	AMH 4442	The American West	NO
CASSH	History and Philosophy	AMH 4694	North American Seafaring	NO
CASSH	History and Philosophy	EUH 4563	The Other Germany: The Lands of the Austrian Monarchy, 1526-1918	NO
CASSH	History and Philosophy	EUH 5196	Vikings in History and Legend	NO
CASSH	History and Philosophy	EUH 5467	Nazi Germany	NO
CASSH	History and Philosophy	EUH 6935	Faith, Hope, and Conflict: Jerusalem in Antiquity and the Middle Ages	NO
CASSH	Music	MUN 3363	Advanced Chamber Choir	YES
CASSH	Music	MUO 3503	Advanced Opera Studio	NO
CEPS	Administration and Law	EGN 3613	Principles of Engineering Economy	NO
CEPS	Administration and Law	PLA 3940	Service Learning	NO
CEPS	Instructional Design and Tech	EME 6317	Instructional Technology for Educational Leaders	NO
CEPS	Instructional Design and Tool	EME 7015	Analysis in Human Performance Technology	NO
CEPS	Instructional Design and Tech	EME 7075		NO
CEPS	Instructional Design and Tech	EME 7073	Distance Learning Design and Development Leadership	NO
CEPS	School of Education	ENE 7636	Cultural Competence and Education of Marginalized Ethnic Croups	NO
CEPS	School of Education	EDF 7530	Education and Marginalization: Condor Sovuality Aging and Disabilities	NO
CEPS	School of Education	EDF 7539	Education and Marginalization: Second Language Acquisition. Second status	NO
CEPS	School of Education	EDF 7530	Theoretical Deconatives Understand Marginalization	NO
CEPS	School of Education	EDF 7539	Deverty Education and Livman Dickto	NO
CEPS	School of Education	EDF 7024		NO
CEPS	School of Education	EDF 7934		NO
CEPS	School of Education	EDF 7938	Preparatory Educational Statistics	NO
CEPS	School of Education	EDF 8486	Advanced Topics in Quantitative Research and Educational Statistics	NO
CEPS	School of Education	EDG 5309	Classical Management Association in Secondary Schools	NO
CEP3		EDG 3440	Classioon Management, Assessment, and instruction in Secondary Education	NO
COB	Accounting & Finance	BUL 5378	Intellectual Property	NO
COB	Business Administration	ISM 4117		NO
DAE	Honors Program	IDH 4039	Honors Seminar: Topics X	NO
HMCSE	Earth & Environmental Sciences	GEO 5930	Seminar in Environmental Issues	NO
HMCSE	Earth & Environmental Sciences	GIS 3015	Cartographic Skills	NO
HMCSE	Earth & Environmental Sciences	GIS 3015L	Cartographic Skills Lab	YES
UKCOH	Movement Sciences and Health	HLP 7001	Promoting Physical Activity for Youth and Adults	NO
UKCOH	Movement Sciences and Health	HLP 7306	Planning and Designing Health and Physical Activity Programs	NO
UKCOH	Movement Sciences and Health	HLP 8002	Leadership in Health and Physical Activity	NO
UKCOH	Movement Sciences and Health	HLP 8003	Health and Physical Activity Research Methodology	NO
UKCOH	Movement Sciences and Health	HLP 8515	Development and Administration of Health and Physical Activity Programs	NO
UKCOH	Movement Sciences and Health	HSC 4120	Consumer Health Education	NO
UKCOH	Movement Sciences and Health	HSC 5506	Advanced Epidemiology	NO
UKCOH	Movement Sciences and Health	HSC 7609	Advanced Theories of Health Behavior	NO
UKCOH	Movement Sciences and Health	PEM 1116	Body Shaping I	NO
UKCOH	Movement Sciences and Health	PEM 1121	Yoga I	NO
UKCOH	Movement Sciences and Health	PEM 2126	Yoga Fitness	NO
UKCOH	Movement Sciences and Health	PET 3020	Foundations of Physical Education and Sport Management	NO
UKCOH	Movement Sciences and Health	PET 4442	Physical Education in the High School	NO
UKCOH	Movement Sciences and Health	PET 4710	Special Methods in Physical Education	NO
UKCOH	Movement Sciences and Health	PET 4720	Physical Education in the Elementary School	NO
UKCOH	Movement Sciences and Health	PET 4730	Physical Education in the Middle School	NO
UKCOH	Movement Sciences and Health	PET 4926	Practicum I: Elementary School Physical Education	NO
UKCOH	Movement Sciences and Health	PET 4927	Practicum II: Middle School Physical Education	NO
UKCOH	Movement Sciences and Health	PET 4928	Practicum III: High School Physical Education	NO
UKCOH	Movement Sciences and Health	PET 7774	Models of Teaching in Physical Education and Health	NO
UKCOH	Psychology	EAB 5738	Behavioral Medicine	NO
UKCOH	Psychology	SOP 4702	Psychology and Gender	NO