Submission for Distinction in Teaching Award

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Dears the members of the Distinction in Teaching Award committee at the John Chambers College of Business and Economics at West Virgina University,

Thank you for the opportunity to submit materials for the **Distinction in Teaching Award for the year 2024**. I am honored to be nominated. Below, I provide an overview of my teaching contributions and accomplishments for 2024, and I highlight my approach to **engaging students, implementing hands-on learning, and enhancing course design**.

If you want to access the materials I am submitting with this report, please navigate to this link (https://github.com/mjahmad/Distinction-in-Teaching-Award-2024---Mohammad-Jamil-Ahmad.git) to either view or download the submitted materials. In addition to the submitted materials, I am attaching a recommendation letter from Dr. Stephane Collingnon, and Associate Professor of MIS in support of my application to the Distinction in Teaching Aware for the year 2024.

Teaching Narrative – 2024

I have successfully taught **eleven courses** in 2024 across **Spring, Summer, and Fall semesters**, exceeding my standard teaching allocation by **five overload courses**. My courses spanned **undergraduate and graduate levels**, including **asynchronous and in-person formats**. Beyond teaching, I contributed to **curriculum development**, co-designing two new syllabi for our **AI minor** and **redesigning an MIS programming course to better align with industry trends**, and served as Co-PI on two grants.

Throughout my courses, I emphasized:

- **Real-world application** – I integrated tools like **Docker, GitHub, Python, Kali Linux, and Virtual Machines**

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- **Engaged learning** – I implemented and designed **interactive coding exercises, penetration testing projects, and Capture the Flag challenges**
- **Flexibility & accessibility** – I developed **detailed instructional materials, recorded tutorials, and GitHub repositories for technical materials.**

To organize my submission, I have compiled a **table detailing the materials I will submit for each course**, followed by a **summary of my approach for each course**.

Submission Plan – Teaching Accomplishments (2024)

Semester	Course	Submitted materials
Spring 2024	**MIST400 – Adv. Info Security**	Updated syllabus, example scripts (Bash, Python), Capture The Flag (CTF) labs, and SEIs
	CYBR545 – Bus. Cybercrime Mgmt.	Syllabus, Docker exercises, new lab assignments, sample graded homework, and SEIs
	MIST352 – Bus. App. Programming	Full course redesign overview, updated syllabus, GitHub repository link, example homeworks, installation guidelines, answer keys, source codes examples, and SEIs
Summer 2024	**CYBR515 – Software Security**	Revised syllabus, Homeworks, and slides.
	CYBR555 – Capstone Project	Syllabus only. Projects are confidential and reports are owned by stockholders
Fall 2024	**CYBR510 – Cyber Info Systems Mgmt.**	Course syllabus, homeworks, and lectures
	CYBR520 – Bus. Cyber Analytics	Syllabus, exams, Modules full info, Class GitHub repo
	CYBR493A – Special Topics: Cyber Ops	Syllabus, lectures, NOAA fellowship projects and contract , in-class problem-solving activities, Class GitHub repo

Course Contributions & Teaching Enhancements

1. MIST400 – Advanced Information Security

- **Focus:** Cybersecurity tools, ethical hacking, scripting

- **Enhancements:** Introduced **Docker, Virtual Machines, Capture the Flag activities**, Bash and Python automation scripts

- **Assessment Changes:** Adjusted grading distribution to balance **team-based and individual assessments**

2. CYBR545 – Business Cybercrime Management

- **Focus:** Offensive security, penetration testing

- **Enhancements:** Unified eCampus modules, redesigned homework structure, introduced **new Kali Linux Docker exercises**

- **Student Experience:** Provided recorded **installation tutorials** and **walkthroughs for software tools**

3. MIST352 – Business Application Programming

- **Focus:** Object-Oriented Programming (Java), version control, software development

- **Major Redesign:** Transitioned from C# to **Java**, incorporated **GitHub for version control**, required students to maintain **code repositories**

- **Assessment Innovation:** Introduced **hands-on coding labs**, removed outdated textbook material, emphasized **industry-relevant tools**

4. CYBR515 – Software Security

- **Focus:** Secure coding practices, software vulnerability analysis

- **Enhancements:** Shifted focus from **CSSLP certification** to hands-on vulnerability assessment

- **Industry Integration:** Students worked with real-world **static analysis tools** (e.g., **CKJM, STATSVN**)

5. CYBR555 – Capstone Project

- **Focus: Real-world cybersecurity problem-solving** with industry partners (Skypunch, Trilogy)

- **Deliverables:** Compliance reports for **OWASP security controls**, weekly **progress updates with industry mentors**

- **Student Impact: Stakeholder presentations, industry engagement, potential employment connections**

- **Materials Submitted:** Project summaries, student presentation slides, compliance reports

6. CYBR510 – Cyber Information Systems Management

- **Focus: Cyber risk management and compliance**

- **Assessment Approach:** Kept content consistent due to **accreditation review** but **enhanced assessment clarity**

7. CYBR520 – Business Cyber Analytics

- **Focus:** Machine learning applications in cybersecurity

- **Course Innovation:** Introduced **TensorFlow, AutoKeras, Weka**, redesigned assessments to include **individual and team-based evaluations**

- **Student Experience:** Created **GitHub repository for Python-based ML exercises**

8. CYBR493A – Special Topics: Cyber Operations

- **Focus:** Hands-on Python programming for cybersecurity applications

- **Innovative Approach:** Partnered with **High Technology Foundation**, integrated **NOAA datasets for security analysis**

- **Industry Impact: Student projects were reviewed by NOAA & cybersecurity professionals**

Conclusion & Submission Strategy

My **teaching approach in 2024** was driven by three key priorities:

A. **Bridging theory with real-world application** – hands-on projects, industry partnerships, technical tools
B. **Enhancing student engagement** – interactive coding exercises, team-based learning, flexible instructional materials

C. **Curriculum innovation** – syllabus redesigns, integration of cutting-edge cybersecurity and programming practices

The **materials I am submitting** include **syllabi, sample assessments, industry project reports, GitHub repositories, and SEI summaries**, organized by course (as detailed above). I believe this **comprehensive package** will effectively showcase my **contributions, student impact, and teaching excellence**.

Please note that I have recorded tens of lectures on eCampus and attaching those is not feasible.

Please let me know if there are any specific formats or additional materials you would like me to include.

Service Summary – 2024

In 2024, I actively contributed to **departmental, college, and university service**, taking on leadership roles in **faculty hiring, curriculum development, student mentorship, and industry collaborations**. Below is a summarized breakdown of my key service activities.

A. University, College, and Departmental Service

- **Cybersecurity TAP Hiring Committee** – Reviewed applications, conducted interviews, and contributed to the selection process.

- **Undergraduate Program Committee (UPC)** – Represented the **MIS Department**, reviewed, and approved course and program proposals.

- **AI Curriculum Development (AAIDA Initiative)** – Led the creation of two AI-focused syllabi:

    o MIST 460: **Requirements Analysis & Design of AI Systems**

    o MIST 462: **Development & Deployment of AI Systems**

- **MIS/SCM Chair Hiring Committee** – Assisted in the successful hiring of the department chair.

- **Faculty Senate Committee on Academic Technology** – Participated in shaping policies on academic technology at WVU.

- **Linux Workshop for MIS Association** – Conducted a session on **Kali Linux for MIS students**.

- **Commencement Ceremonies (May & December 2024)** – Attended and represented the **Master's in Business Cybersecurity Management** program.

- **Spring Undergraduate Research Symposium** – Served as a **judge for engineering-related projects**.

- **Three Rivers Information Security Symposium (TRISS) 2024** – Represented **John Chambers College**, engaging with industry professionals on cybersecurity initiatives.

B. Faculty Mentorship & Student Engagement

- **Cybersecurity Capstone Mentorship** – Supervised student teams working on **OWASP Level II security assessments** for **Skypunch** and **Trilogy**, providing **weekly guidance and feedback**.

- **Cloud Analytics Fellowship (NOAA Data Integration)** – Advised **four undergraduate projects** as part of the **WVU Cloud Analytics Fellowship**, incorporating NOAA datasets into cybersecurity applications.

C. Recruitment & Retention Efforts

- Represented the **MIS Department** at major student recruitment events, including:
  - **Discover WVU Information Fairs**
  - **Decide WVU Open House**
  - **MIS Back to School Bash**

- Engaged with prospective students and their families, discussing **career pathways in MIS and cybersecurity**.

- **Onboarding for New MS CYBR Students** – Participated in orientation sessions, supporting student transition into the program.

D. Grants & Fellowships

- **Co-PI on Two Grant Submissions:**
    - **Google Cybersecurity Clinics Fund ($1,000,000) – Not funded**
    - **TechWerx – Industrial Control System Cybersecurity Training ($160,000) – Under review**
- **Recipient of Cloud Analytics Faculty Fellowship ($5,000)** – Integrated into **MIST400 coursework** to enhance student learning.

Best,

Mohammad Jamil Ahmad