

Information Technology Advisory Meeting Minutes
Spring 2023

Attendees

- Bruce Curtis
- Charlie Francis
- Wyatt Johnson
- John Kollman
- Nick Lindhag
- Johan Lucas
- Dave Owings
- Ben Svobodny
- Jack Wenglewick

Spring 2023 Minutes

- MSCTC/M State welcome and updates
 - Additions/approval of agenda
 - Approval of last meeting minutes
 - Introductions and membership list updates
- Discussion of Industry Trends
 - Maintenance Class
 - Note some businesses are seeing more Chromebook type systems
 - Recommend dealing with hardware cloning/reimaging
 - Actual build is no longer a priority
 - Note AI is not ready work by itself, but as an assistant to people
 - Troubleshooting is a priority
 - Email comment
 - I think it's important to know the major components and their function, but the ability to repair most devices has basically disappeared. Beyond swapping a screen, hard drive, ram, keyboard, everything else should be sent in for warranty replacement.
 - Windows Server Class
 - Recommend connecting student Active Directory to cloud (MS IPv6 announcement helps)
 - Emphasize DNS for troubleshooting
 - Ran an IPv6 utilization poll, most members had some IPv6 running
 - Windows topics to add/emphasize
 - Event Viewer (find important data)
 - Check resource utilization, create baselines
 - Group Policy Objects
 - PowerShell
 - Log file aggregation
 - Permissions
 - Groups
 - Separation of duties including jump boxes
 - Build and deploy RDC farms, help with Citrix concept
 - Email comment
 - Proper domain setup (tied back to CISA/NIST standards). Troubleshooting core systems such as DNS/DHCP/DFS/AD rep, etc. MANAGEMENT VIA POWERSHELL VS GUI. Integration with Azure.
 - DevOps
 - Recommended skills
 - PowerShell scripting
 - Ansible
 - Github/gitlab
 - Shell scripting
 - Groovy language
 - Requesting more work on scripting/automating
 - Consider the "The Phoenix Project" book for students
 - Talk about agile philosophy/mindset
 - Encourage work between business and IT students
 - Email comment

- Not so much exercises but mindset. Doing things in a formulaic way, generating resources from a code based development, change control driven methodologies.
 - Worst Technology
 - Email comment
 - Single point of failure apps/services/hardware. Not designing environments (requirements permitting) to be resilient to node/service failure.
 - Best Technology
 - Email comment
 - ChatGPT/equivalents. Not to do peoples work, but to serve as the “get the first 3 steps of a 10 step problem done immediately’ setup. It’s great to get a framework and drudge work done.
- Program Updates
 - Retirement/Hiring
 - M State is planning to advertise Mid-February 2023 for two instructors
 - Computer Programming Instructor
 - Cybersecurity Instructor
 - Computer Programming
 - Report one course emphasizing secure coding
 - COBOL/RPG programmers are hard to find
 - This is important to larger/older organizations
 - Question the group about entry level qualifications for programmer
 - US Bank – Now allow 2 year graduates into COBOL/mainframe work
 - Otter Tail – Looking for problem solving skills, not so much degrees
 - Other languages to teach
 - Python
 - .NET
 - MS stack of software
 - Teach working on other people’s code, especially uncommented code
 - PowerBI
 - Move Linux class earlier in the curriculum sequence
 - Cybersecurity
 - Note major changes are waiting for hiring
 - Consensus did agree the program needs more attention at layer 7
 - Content suggestions
 - Some support to keep Cisco content in curriculum
 - DDOS impact/mitigation
 - Layer
 - Azure Active Directory connection
 - Aware OWASP
 - Identity management and lifecycle (SAML) (hybrid cloud systems)
 - Multifactor authentication
 - OWASP 10
 - Information Technology – Database Administration
 - Note program has very low enrollment and request ideas
 - Rebranding/rename
 - Data Science or Data Analytics
 - Name Python class – Python
 - Take names from current headlines
 - Name classes according to content
 - Consider adding business classes
 - Add PowerBI for Data Analysis / Data Engineer
 - Certificate
 - Note the content is very difficult to reduce
 - Consider SQL specialist
 - Recommend checking job advertisements for names and requirements
 - Noted that mock interviews are not scheduled this semester because of staffing issue. This needs to return.
 - Information Technology – AS
 - Presented a possible outline of programming class change in the program depended on discussion with MSUM

- Comments
 - Students need problem solving skills/logic skills/critical thinking
 - Cisco content level in a Network + class would work (vendor neutral has an attraction
 - Consider doing more virtual/software routers to increase student troubleshooting practice
- Moorhead High School is looking for entry level certificates
- Collegiate Cyber Defense Competition
 - Announce the CCDC competition is February 4, 2023 in Alexandria MN
 - The team and team coach very much appreciate all the help provided by members of the advisory group.
- Program Needs
 - A brief overview of program needs was presented
- Next Meeting Date
 - Looking late September/early October 2023 for our next meeting

Action Items

- Create a plan to rename courses/degree programs to better reflect current wording and content
- Proceed with the hiring process

Respectively submitted,

Tim Preuss
2/6/2023