

Meeting Name:	<b>Moorhead Advisory Committee Meeting</b>	Date:	October 17, 2022
Facilitator:	James Anderson	Time:	6:30 – 8:30 PM
Recorder:	Tim Preuss	Location:	<u>In Person and Zoom Meeting</u>
Members	James Anderson, Dan Carter, Bruce Curtis, Deb Flaskerud, Charles Francis, Andy Haugen, Bob Henderson, Wyatt Johnson, Carl Lippincott, Johan Lucas, Dan Meyer, Tyler Skauge, Alex Venter, Jack Wenglewick, Tim Preuss		
Purpose Statement	Industry provide input and recommendations for IT program updates and future direction		

No.	Topic	Highlights
	Meeting Called to order	Motion to call meeting
1.	Welcome Members	James and Tim welcomed all members
2.	<ul style="list-style-type: none"> <li>• Discussion of Industry Trends               <ul style="list-style-type: none"> <li>○ Maintenance class: importance of repair experience vs. knowledge of components.</li> </ul> </li> </ul>	Topics discussed <ul style="list-style-type: none"> <li>• MDM</li> <li>• Azure</li> <li>• Configuration Management</li> <li>• The need to understand and work with API</li> <li>• Imaging computers remotely</li> <li>• Chrome/Google Cloud Administration</li> <li>• Students need to focus on why</li> <li>• Learn to work with on-prem and cloud (Hybrid environments)</li> <li>• Students need resume, references and cover letter</li> <li>• Students need interpersonal skills, customer service</li> <li>• Ticketing systems and resolution notes</li> </ul>

		<ul style="list-style-type: none"> <li>• Peer review resolution notes</li> <li>• Document how to troubleshoot, what questions to ask, use a model like OSI</li> <li>• Troubleshooting</li> </ul>
3.	<ul style="list-style-type: none"> <li>○ Windows Server Class: what are the important skills to teach?</li> </ul>	<p>Topics discussed</p> <ul style="list-style-type: none"> <li>• Hybrid environments</li> <li>• Permissions (This was not as important to the group as Tim thought)</li> <li>• Policies and procedures</li> <li>• Segmentation and access</li> <li>• Auditing actions</li> <li>• Using LAPS</li> <li>• Azure Sync Tool</li> <li>• Be aware of alternate authentication</li> <li>• Multifactor authentication</li> <li>• Know how server and network integrate</li> <li>• Know how to handle new</li> <li>• Know how to find information</li> <li>• Know when you do not know</li> <li>• Automation</li> <li>• Patching everything</li> <li>• Integration with Intune</li> <li>• File share, Sharepoint, Onedrive – how to distribute information/files</li> <li>• Best practices for file sharing</li> <li>• Multifactor email for cyber insurance</li> </ul>
4.	<ul style="list-style-type: none"> <li>○ The group recommendations of DevOps exercises for students.</li> </ul>	<p>Topics discussed</p> <ul style="list-style-type: none"> <li>• .NET</li> <li>• SQL and Oracle</li> <li>• Web access/programming</li> <li>• Alorithmic thinking</li> <li>• Advantage of scripting on servers</li> <li>• Test driven development, design for test</li> <li>• Know what questions to ask</li> <li>• Source control, github</li> <li>• Version control at the beginning</li> <li>• Agile practices</li> <li>• Know why use git or similar</li> <li>• Use git for configurations</li> </ul>

		<ul style="list-style-type: none"> <li>• Ansible is huge, able to validate configurations</li> <li>• Know some form of SQL</li> <li>• Use low/no code to automate on servers</li> </ul>
5.	<ul style="list-style-type: none"> <li>○ Retirement/Hiring <ul style="list-style-type: none"> <li>▪ Programming Instructor</li> <li>▪ Cybersecurity Instructor</li> </ul> </li> </ul>	<p>Topics Discussed</p> <ul style="list-style-type: none"> <li>• NOC level 1 uses the tools</li> <li>• Security audits</li> <li>• Networking fundamentals</li> <li>• DoD baseline certificates (Network + and Security +)</li> <li>• Know share language/education background for networking, security and server</li> <li>• The market is very hot for both positions</li> <li>• Focus on someone who can teach and learn over technical</li> <li>• Need instructors to teach how</li> </ul>
6.	College Update	No Administrators were present to provide college update.
7.	Next Meeting: End of January Early February	Motion to Adjourn – John, Second - Allen
7.	Topics to include in next meeting	Update on AS Program Revisions, Summary of feedback for IT Database Admin revisions.

**Note: To-Do Items listed in Bold**

- Review updates to Computer Programming – Fall 2022 updates
- Discuss Program Review needs
- Update about the hiring process
- Provide a rough outline to update security program

**Email/Chat additions below**

19:03:03 From Tim Preuss : You are welcome to text any comments.

19:03:12 From Alex Venter : Document, Document, Document!

19:04:01 From Tim Preuss : thank you Alex

19:04:07 From tyler : add screenshots for those of use who don't like to read

19:04:18 From Wyatt Johnson : To loop back to the technical side of the industry trends - Every day I see more and more companies deploying an SD-WAN solution for hybrid connectivity to the cloud as well as to other branches/offices

19:15:38 From Wyatt Johnson : <https://azure.microsoft.com/en-us/free/students/>

19:18:30 From Wyatt Johnson : Meraki 🙄

19:28:10 From Andy Haugen : Source control. Like github

19:29:53 From Alex Venter : Database creation and management.

PowerShell scripting for common tasks.

Linux admin with BASH scripting

Automation tools like Ansible for network management.

19:31:01 From Charlie Francis : just an FYI, if I drop off, my UPS failed. I'll reconnect with my phone, if it does.

19:42:48 From Charlie Francis to Tim Preuss(Direct Message) : In case I don't make it back on. (for later in the Agenda) Equipment, reach out to Corporate Technologies and Sanford for equipment that would just go to recycling. Partnerships, check with Read Tech, as they are pushing a lot in our area.

19:43:37 From Johan Lucas : Azure Devops, Gitlab CI and GitLab/GitHub will be good skills to have

19:44:04 From Alex Venter : We didn't talk worst/best tech.

Worst: managing Cisco "Smart Licensing"

Best: deploying containerized applications

19:46:08 From Alex Venter : For Cyber security: making use of ML/AI to filter through all the input to determine what needs to be actioned on by a person and what is simply noise.

Basic certifications like Sec+ and Net+

19:47:35 From Johan Lucas : Part of being an engineer is adjusting to the environment and challenges. It is important that they don't sit back waiting for someone else to give them the answer, but to learn to do research and find the answers and options themselves. They should also be able to compare those options and having and leading discussions would be good experience. No matter how good you think your solution might be, someone else might have a better one and sometimes the best solution is a collaborative one. This skill helps with teamwork and speaking up.

19:50:38 From Johan Lucas : Also, not speaking up and sharing can prevent a good idea, or a spark to a good idea, to benefit the team to find a solution.

19:56:25 From Dan Meyer : Jumping ahead to partnerships - 3-4 years to deploy current technology is almost an oxymoron, right? My recommendations - work with military people on best-practices for staying current - they have a lot of talent for that. Also, work with your local PMI chapter to get your students involved there. They can assist you with cross-training on how to execute the upgrade "projects".

19:57:19 From Dan Meyer : Also, anyone that has gone through the Air Force cybersecurity training in San Antonio would be a good candidate to consider - if they're will to teach.

19:57:19 From Alex Venter : The languages may be different, but the principles are the same

20:10:36 From Bruce Curtis : <https://minnesota.peopleadmin.com/postings/1813>

20:11:12 From Bruce Curtis : <https://minnesota.peopleadmin.com/postings/1812>

20:13:49 From Johan Lucas : On Cobol, U.S. Bank is considering opening up their COBOL trainee program for those with A degrees. In the past they were looking for B degree minimum.

20:14:05 From Johan Lucas : This might happen next year

20:22:06 From Johan Lucas : Thank you and good luck!