Meeting Name:	**Moorhead Advisory Committee Meeting**	Date:	September 29, 2020
Facilitator:	Pam Cummings/Janet Johnson	Time:	6:30 – 8:30 PM
Recorder:	Janet Johnson	Location:	Zoom Meeting – meeting was recorded
Members (those in attendance are in **bold**):	**Tim Preuss, Deb Flaskerud, Jason Peterson, Dan Carter, Janet Johnson, John Tassava, James Anderson, Johan Lucas, Allen Schmitz, Bruce Curtis, Trevor Brucker**, Any Haugen (email submission)		
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 to order with second.
1.	Welcome Members	James and Tim welcomed all members
2.	Tim Opened up discussion to ask industry where their organizations are at with Cloud computing and What tehnologies are in the future?	*Allen Schmitz*, In House Servers. With a 14 Meg connection –the cloud will not work. They are projecting cost affective upgrade to 1 Gb connection soon. *Johan Lucas* – Looking at Cloud – and Virtual Desktop – and more capabilities for BYOD. Messaging Space and Collaboration Tools on their private device and Access to Virtual Desktop. *Trevor* – Heavily embracing Amazon AWS – SIP workloads to that –also embracing Azure because Microsoft and AWS do not play well together. Also put Platforms in Server so no need to manage the servers. Working on Free projects – minimal capital expense. Perl Site and Cloud Guru – subscriptions to give the less experienced employees. *John Tassava* – Teleconferencing tools – keeping people productive – big push for added security.

		James Anderson – On premise for nearly everything – Government needs to run – plan around disaster scenarios. Mobile data center that can be brought back up within the States infrastructure. Microsoft new set of server software James thinks Microsoft is still planning for on premise.
		Andy Haugen **–** Moved to the Cloud, need to be familiar with the cloud – utilized Azure very heavily. Cloud is changing – need to know programming C#, Spark, Python, Powershell. A student should have the ability to code. Even Sys Admins. Use Git and Github.
		Bruce Curtis **–** Cloud vs on Premise – a lot about the edge – edge that needs to provide lower latency. Also low CPU power. Ability to migrate back and forth from on prem to cloud. A lot of stuff moving to containers.
3.	Asked the committee to describe the attributes of the ideal entry level employee.	*All* Willingness and ability to Learn. Make friends – Networking. All agree need to know someone and ability to troubleshoot. Inquisitive –willing to learn and adjust. Ask questions but not the same question. When new ask questions and ask the right question.
		Deb – Industry expectations: Able to analyze a program so you know what to do before coding. Can you follow the flow of your program? What have you done to solve the problem before asking for help. Teamwork.
		Allen asked if the individuals in computer programs are logical people – methodical in general. Learned how to break a problem down – test environment to figure out the methods – what is wrong or ways to improve the process. •
		Jason **–** Students that come in are raw and have potential to think logical but have to pull out the methods to thinking logically. There is a large amount of churn in the technical fields.
		Johan **–** If you get into something that is not going well – ability to step back and look at the big picture and re-gain your perspective. Constantly learn, adjust and study from fixing things. Think outside the box and work under pressure. *Jason* mentioned that he tries to nudge them in the right direction or point them to a research area.
		Dan mentioned sometimes they may have it but it's hard to draw it out of them. Challenge every student individually.

4.	What elements must be in an IT 2-year education?	*Johan* - Agile Teams – how to function in an Agile Team. Be able to contribute and understand how others will contribute. Rely on eachother to get to the endpoint.

5.	Program Updates – Focus this meeting on the IT AS Degree – with understanding other programs will be addressed in future meetings.	*2 – different proposals – Tim introduced the options.*
		*Feedback***:**
		    James asked if students are still getting exposed to Server OS if NOS is dropped. Tim mentioned Managing Directory Services will spend more time creating logins with AD not so much building servers from the ground up. Get them thinking automation. A lot of outcomes addressed in NOS will be addressed in Managing Directory Services. John agrees – students will work on servers more than building from the ground up.
		
		    Bruce mentioned that today Directory Services is considered Identify Management – moving to Multi-factor so maybe address Identify Management with Active Directory. Tim asked maybe work towards Zero Trust? Bruce mentioned enforce Identify Management as close to the assets you are trying to protect. Federated Identify. Example – currently use IP range to enforce copyright, but now with everyone at home, use the SSO or your identify to authenticate access. If you are accessing from a device where you have already authenticated then they can confirm identify using Multifactor. IPv6 capable webpage at NDSU. In bound traffic 30-40% is IPv6.
		
		    What options: Majority of members prefers the second option – if the program includes more programming it will better prepare individuals who transfer. Most transfer for the programming side more so than the IT side. Adding another Scripting course to the curriculum and remove Web Engineering because programming skills are needed regardless of the position in IT. Even system admins need programming skills.
		
		Tim will work with MSUM at realigning the courses to fit with MSUM course offerings.
		
		Course *Scripting to Automate* – may be good for industry people. James mentioned Automate is a program name by one of the Vendors. **Recommend Name Change to**: **Scripting for Automation**.
		
		Bruce shared reference links: Identify Management and IPSec
		
		https://www.vyncke.org/ipv6status/project.php?metric=q&country=us
		
		IPSec and containers

		https://access.redhat.com/documentation/en-us/openshift_container_platform/3.11/html/cluster_administration/admin-guide-ipsec https://docs.openshift.com/container-platform/3.9/admin_guide/ipsec.html
		Committee asked about theTimeline for AS Degree change: 1. Meet with MSUM 2. Classes that are changing and created submitted to Academic Affairs Committee 3. Program change on docket before end of year. Late January/February – where the modifications are in a variety of committees. 4.If gets approved from college and MSUM approval then Admin signs the articulation agreement.
		James clarifies curriculum live Fall of 2021. What would be the 1st student graduating – would be Spring 2023. James points out how far out designing the course for.
		James requests a **Topic for next meeting** – **status update and if need any input**. • • *Deb asked which program should be updated next* James suggested the students who are impacted the most. Deb mentioned that the IT Database Admin seems to need more updates than the Computer Programming. James suggested updating the IT Database Admin program to see if helps out with enrollment.
		Deb, Jason and Tim will review the IT Database Admin program and post revisions to the Brazil website and notify the Advisory Committee to review and provide feedback. •
6.	College Update	No Administrators were present to provide college update.
7.	Next Meeting: End of January Early February	Motion to Adjorn – 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