**Northland Pioneer College Department of CIS**

**Minutes for the Advisory Board Meeting on**

**October 29, 2015**

**11:30 a.m. to 1:30 p.m.**

**Silver Creek Campus, LCC RM #112**

Attending Advisory Board Members: Peggy Belknap, NPC Dean of CTE ; John Spaduccini, NPC Manager of Career and Workforce Business Services; Tamara Martin, NPC Apache County Coordinator; Pamela Dominguez, NPC Secretary to Dean of CTE; Suliasi Kaufusi, SRP Systems Analyst; Rob Martin, CIO/WMRMC; Barry Williams, Apache County School Superintendent; Ken Dewitt, Navajo County; Tony Lindsey, NES; Jacob Garcia, LCMC

Attending CIS Faculty Members: Clover Baum, Department Chair; Doug Seely, John Chapin, Wei Ma

**Agenda Items:**

1. **Welcome, Introductions and Lunch**

Chairperson, Clover Baum welcomed all attendees to the Spring 2015 CIS Advisory Board Meeting.

1. **Importance of the CIS Advisory Board**

Clover noted the industry recommendations and needs should drive our department. The feedback you give is very important for students to be more hirable.

John C. noted that the faculty needs to know what the students need to know to be hired.

1. **Linux and other updates**

John C. noted that we are working on streamlining our degree plans and combining some of our existing degrees. HLC is our accrediting agency and their changing the qualifications for faculty to teach. I am going forward to earn a certification in Linux, which is open source software most servers run on.

1. **Network and PC Support update**

Doug gave a hand out for the proposed programs in Network and PC Support. He noted the processes of getting courses on the books. Anything we are working on now, will not be offered till Fall 2016. Network and PC Support (CP): changed from 16 to 18 credits, CIS198 and CIS298 are removed and CIS147 and BUS231 are added. Network and PC Support (CAS): CIS148 and CIS149 are new courses, CIS198 Internship was moved later in the degree plan, this leads up to your CWNA certification.

Tony asked CIS149 does the course include configuring wireless devices.

Doug answered the N+ course covers some of that.

Peggy and Rob discussed what courses it should be covered in.

Doug noted that he is still tweaking what is covered in CIS148 and CIS149.

Tony noted most managers do not work on computers; they were on their tablet or iPad.

Doug noted the change in A+ is being changed from 801 and 802 exams to the 900 series. It will be interesting to see how much their going to go to portable devices. One section is on portable devices and how to configure them, I see that as one of the bigger components coming into the A+ programs. CIS147, 148 and 149 gives student the skills that they need to work in the industry.

Tony asked CIS147 does it cover their looks, hygiene, confidentiality, salaries and financial.

Rob noted Security + is going to cover a lot of industry standards.

Doug noted CIS198 Internship course covers dress code and details of what is expected of the intern.

Tony asked is there a prerequisite such as keyboarding.

Doug noted CIS105 students are expected. BUS231 has Microsoft Office in it.

Peggy noted under our human development department, there is a National Career Readiness Certification (NCRC) Bronze, silver, gold and platinum levels. The levels are based on applied math, locate information and documents. This is well-developed; we use it in our energy programs. Would you want to add it to the degree plan? It is a national certification. Nuclear plants will only take platinum and gold.

Ken noted they should have some sort of skills when walking in the door and there should be a computer class for every degree.

Peggy asked if CIS105 addressed everything that they are talking about.

Doug answered it does not.

Peggy noted CIS105 course crosses a lot of other disciplines not just CIS. We would need to be careful to change anything since this is a transfer course.

Clover noted NAVIT keyboarding is no longer offered in the high school. Some schools are offering it in 3rd grade. We do offer it in three other courses. Other courses do cover what has been talked about. You might need to contact us to find which one specifically fits your needs.

John S. noted possibly a prep course before going out into CIS198 Internship.

Rob noted the 45 credit Network and PC Support C.A.S. is outstanding. The design of the C.A.S. is quick and in depth it prepares the student to be marketable and more hirable within the community.

Peggy noted there is a problem if CP’s and CAS’s do not have clear pathways to an AAS; students are not eligible for financial aid. Our partners out there can’t use them for their students in the NAVIT program and in other areas. If we design it correctly, it becomes more marketable and businesses might pay for their people to continue their education or students will want that degree. We have a good agreement with our universities that they could transfer that on to get their Bachelors or Master’s degree. We can make keyboarding a pre-requisite. There is even an on- line test instead of adding more credits.

Doug noted the flexibility in the required electives three 3credit courses. CIS147 Helpdesk/Soft Skills will help with a lot of the issues that you are all bringing up.

Barry noted NCRC is a great program, it should be considered. He asked who uses Access today. You are either on a real database or you are using Sql.

Rob answered you are going to see a larger move toward Access and Access like products. You are seeing a move away from proprietary report writers. Major vendors are building their report writer if not interfaced with Access. The user interface is Access like. Their giving the end user in a much more graphical user interface format that’s point and click.

John C. noted we are required to teach CIS105 spreadsheets and databases. There was some talk at an Articulation Task Force meeting about whether or not that had to be Excel and Access. The answer coming down from the universities for purposes of transfer the answer was no. You have to teach databases. There is some wiggle room. If the consensus is not Access; it is not the way to go. We would have to of course develop new curriculum around that.

Rob noted throwing the open source Linux operating system the introduction standard home end user is awesome. You would not be taking a giant leap to move more toward open source solution database instruction that’s going to look 85% like Access anyway. Open source is easier for the students to learn, more cost effective for the college to teach and get away from licensing costs etc.

Tony noted his dba has to support Oracle, Mysql, and Access. It is about even.

Suliasi thought we should keep Access all third party applications all design to Access.

Doug noted CIS245 is our database course. In there they do Access and Mysql so there is some exposure to all of that. It is not part of this degree plan. Databases are becoming more important to organizations due to all the reports and statistics they need to create.

Rob noted security is no longer security; there is complete separate off shoot of privacy. They are all important areas but they are becoming segmented. There is a Privacy+ certification now. Security and privacy are two separate classes instead of one. The credit hour from trying to cover each segment would increase too much.

Doug noted that is interesting, the more I get into one area then I think this leads to this area. We can’t do everything. We are trying to meet the needs to employers up here on the mountain. How was the intern Clint doing at LCMC?

Jacob answered the internship worked out well.

Rob noted Peggy is right how we get the clear pathway right starting from ground zero. I have to commend 45 credits C.A.S. is outstanding. This is a perfect way to jump into security.

Peggy asked is there another pathway from C.A.S. Network and PC Support to other areas.

Rob answered there is other stepping blocks to go from this degree. Everyone agreed this degree is the foundation to a lot of other specialties.

Jacob noted if you finished this C.A.S. you would have enough knowledge to speak well in an interview. You would have the ability to answer briefly on a broad range of questions.

Clover noted the internship course is in the middle of the degree.

Doug noted he would be recommending the Internship course right after a student finished their C.P. then the student has a basic skill set. They will have at minimum A+ certification, I would prefer A+ and N+.

John S. Career Services can coordinate exposure for the student through job shadowing to get that exposure to industry.

Ken noted the Internship course is in the right place. The student has little bit of exposure and you can assign them more things to do. I would be more likely then to ask for another one.

Suliasi asked if there is a lab connected to A+ and N+?

Doug noted we have two labs one is at PDC the other WMC. A+ course is an 8 week 8 hour a day course. The students work on old and new technology to give them real life skills. The A.A.S. has 3 credits in Communication, 7 credits in Discipline Studies and 9 credits in Required Elective.

Tony noted College Composition course is important. His company requires a lot of reports and that course helps.

Suliasi noted it is important for writing a proficient emails.

1. **Suggested changes to CIS degree, Web and Graphic degrees, and Required Electives**

Clover noted there reviewing existing courses to see if they are current. In Web Development and Graphic Design, we are keeping the 2 C.P.s. We are combining them into one, Web and Graphical Design into a C.A.S. and A.A.S. Some of the courses are the same after you get past the C.P.s that is why we made this decision.

Sulias asked what language do you emphasize for the Web Development.

Doug noted Java is the language. A Lot of it is basic Html.

Clover noted if you look at the Web Development you have the Linux. In the C.P.s, we are trying to give the students a base in all of it.

Is it a good pathway for employment? Do you agree with this change?

Ken agreed with the changes. Hopefully, one day bandwidth will improve on the mountain.

Barry noted there is a need on the multimedia side to encourage skills of the needs of the mountain.

Doug noted he sends his students on projects that have to do with communication. I send them out with Camtasia, so they need to do some explanations and those things. They have a 3D camera and I have the lighting all set up, so they have to learn about the lighting and work with individuals. They have to put it up on the Web. The course does not have a lot of books. It’s all out on the Web. It is project based and a collaborative effort. That is how CIS125 is.

Jacob asked is it written or tracked. I would like to see integrated into these programs is something like Basecamp.

Doug noted CIS147 has like a Basecamp were you have collaborated projects. I would like to bring into that course is project management. I want the courses offered to be what students need to be hired by you.

Sulias asked if a project could be brought in from the outside so students can get experience. An example was a business would like some advertisement done, would the students be able to work on video for the business.

Doug answered that there is another department that does filming and editing. There is not of extra time to take on outside projects. That is why the internship program is so important. We wouldn’t want to be taking work out of the private sector either.

Clover noted they reviewed the CIS degree plan. The courses removed are: CIS115, CIS150 and CIS217. We have added: CIS147 and CIS161 and CIS142. We are giving them more hands on skills in computer science. We want to put these classes on the internet so students can take a degree online. On the Required Electives, we are taking out most of the Business courses that do not have anything to do with Computer Science. We are adding in the ones that do.

Barry noted the changes with the courses

Sulias noted that he agreed with adding the changes.

Tony noted that it makes a lot of sense.

Rob asked how well does it roll into the universities? As long as you look at that then you are on the right track.

Clover noted that they don’t have it articulated like in business you have the Abus. We will be working on that as soon as we get your okay on the change. Then it goes to our Dean and next Instructional Council.

Jacob noted he is in agreement. Look at the high schools as well to knock of some of those prerequisites.

John S. asked if Dual Enrollment’s problem of not having enough teachers to teach this course at the high school level. Can this be resolved by using SmartBoards with the Grant the college received?

Clover answered not enough bandwidth to do this and it was for general education courses.

Ken agrees with the program looking into the future to meeting the needs of the community. There been talk from CableOne to offer higher bandwidth to the home.

Clover noted the offering of online courses on the internet by using Moodle.

1. **Industry updates**

*Barry* noted the Arizona’s Sun corridor network between ASU and NAU 100 gigabyte between campuses tied to a national system called Internet 2 there will be some education opportunities. What I am seeing from E-rate is trying to focus on the middle mile is fiber including dark. The change in the way that it is being done the companies that puts in the fiber in the ground gets all of their money at the end of the project which makes it more cost effective to install and their allowing educational institutes to defer there payment over three to five years. The public k-12 side of it the Paradise Valley School District has been involved for quite some time. Yuma School district is coming on board. Science labs have 30 stations robotic driven science labs, chemistry, physics and biology experiments the lab work through mechatronics robotics interface. In music having a thousand mile radius with live concerts were a violin is at one place and other instruments at other locations and not have latency. We can put pressure on our internet providers.

*Ken* noted Paul Watson assistant county manger heading up a bandwidth consortium with Frontier and CableOne. We got off track with 911 failure that we all experienced. What can we do to help better bandwidth to the mountain? That is going to be an every other month meeting that they will have in Snowflake. County is focusing on regional dispatch initiative that is in the works, consolidating all the 911 centers four currently trying to get down from two. We partnered with NPC, we had a meeting in Snowflake/Taylor they have fiber everywhere. We are going to try to partner with them and the brick building in town will be the main point of contact. We need to get more bandwidth from here to there without paying Frontier thousand dollars a month for that bandwidth. We are more concerned about security, attacks are more frequent. Even though you teach security here, this is great. That landscape changes so often. The programmer was logging in and miskeyed a few things and came up with a SQL error of the website. Which is a major cybersecurity espionage insertion attack, we know but we don’t know. There are some groups that are ahead of the bad guys they have defenders, hacker and a forensics.

*Jacob* noted we are playing catch up on our side. I look at the A+ course to me it is great to have that knowledge. Right know hardware is cheaper very few PC’s left. There are very few PC’s in our network.

*Rob* noted that hardware is becoming dispensable. One of the big moves in my industry is telemedicine and robotic medicine. In areas like mine and Jacobs, we are going to see more audio and visual based medicine in terms of psychiatric counciling remotely. Telemedicine is huge, an oncologist can do a follow up appointment with his patient at home as long as they have an ipad.

*Tamar*a noted nothing new.

*Tony* noted trends in the energy world were all about the path of our nation. Making what is on the power line more visible to us so we can find out what is going on effects my techs they have to become savvier and have more tools. Sometimes they need to show a line man how to through a switch. We have to support dispatch a lot and my techs have to learn more about energy in general. My help desk has to be more diverse and think on their feet. He has to work on the phones, printers and install Veriphone credit card machines, etc.

*Sulias* noted we are all about power not just an IT person. EPA is going to scare everybody. I have to admire you guys the A+ network. Keep teaching it, they might change it here and there but the fundamentals will always stay the same. If you notice when Windows went from 7 to 8, fundamentals stayed the same. My line of work, we do everything over the internet everyone carries a tablet. They would rather carry a tablet versus laptop. All of our employees work remotely, either from their phone or tablet. Interns should have an introduction on mobile configurations. I will look into internships at SRP.

1. **Next Meeting Date:**

April next semester

1. **Adjournment**