



Computer Science Industry Advisory Board Meeting Minutes
September 23, 2011

Industry Members Present:

- Davis Almanza, IAB member representing Computers Unlimited
- Terry Brandt, IAB member representing Zoot Enterprises, Inc
- Jason Davidson, IAB member representing Court View Justice Solutions
- Tyler Dusek, IAB member representing Schweitzer Engineering Laboratories
- Mike Lee, IAB member representing 360networks
- Kevin McManus, IAB member representing ikuw Solutions

Montana Tech Representatives Present:

- Jeff Braun, C.S. Dept. Chair
- Frank Ackerman, C.S. Faculty
- Celia Schahczenski, C.S. Faculty
- Michele Van Dyne, C.S. Faculty
- Keith Vertanen, C.S. Faculty
- Tami Windham, C.S. Administrative Associate
- Jake Fjermestad, C.S. Student
- Jeff Hall, C.S. Student
- Mitchell Meyer, S.E. Student
- Amador Montiel, S.E. Student

Welcome and Introductions

- Doug Coe, Dean of the College of Letters, Sciences and Professional Studies welcomed the board members to Montana Tech and thanked the members for their time and efforts put into the Computer Science program.
- Introduction of all attending the meeting were made. Jeff Braun, Department Head welcomed the board members to Montana Tech and thanked the members for their input to the department.

Update on the Computer Science Department (Jeff Braun)

- **Montana Tech Updates**
 - **Chancellor change**
 - Dr. Frank Gilmore retired in June
 - New Chancellor hired, Dr. Donald Blacketter, from the University of Idaho
 - **2nd Highest Enrollment – Fall 2011**
 - **Buildings**
 - Natural Resource Building completed
 - Health Science and HPER renovations
 - Alumni Center under construction
 - New dormitory being planned
- **General Computer Science Department News**
 - **Faculty**
 - Rick Joyce resigned last December
 - Keith Vertanen accepted tenure track position and started at Tech this fall
 - Michele Van Dyne stepped down as department head at the end of the spring 2011 semester
 - Jeff Braun started as department head in May
 - **Equipment**
 - Department's Sun Fire server is now really operational (hosts website and used in several courses.)
 - NAO H25 humanoid robot purchased

- **ABET Accreditation Results**
 - Both CS and SE accredited through 2013
- **Curriculum**
 - Game Development Option approved
 - Web Science taught for the first time in spring 2011
 - Advanced Web Development taught for the first time in spring 2011
- **2010 Department Goals**
 - Increase Enrollment
 - Decrease Administrative Overload
 - Enhance (External) Image
 - Obtain Maximum ABET Accreditation (6 years)
- **Progress of Goals**
 - **Increase Enrollment**
 - R.E.A.L. Scholarship Program – Year 3
 - Earn up to \$600 by completing 4 online modules
 - No longer offer Summer Camp to double amount
 - Replaced with Competitive Programming Challenges
 - Earn \$300 for each program completed
 - 5 completed 2 or more modules
 - 3 freshmen enrolled in fall 2011
 - Currently helps support 11 students
 - Enrollment Flat – 48 students in CS/SE, same as fall 2010
 - Does not include 4 or 5 FESP students interested in CS/SE
 - Has stayed at this level for the last 5 years
 - **Decrease Administrative Overload**
 - Adopted new assessment process
 - Program Outcomes now match ABET outcomes
 - Mapped Course Outcomes to new Program Outcomes
 - Requirements and Specifications generated for a AbOut database project to track and assess outcomes.
 - **Enhance (External) Image**
 - Web site design – consolidated CS pages on Tech server with those on CS Department server
 - Updated menu layout from recommendations by User Interface Design class
 - Facebook social networking group created summer 2011
 - **ABET Accreditation Results**
 - Both CS and SE accredited through October, 2013
 - No deficiencies – all criterion satisfied
 - Several weaknesses and concerns already resolved with Due Process Response
 - Two weaknesses need to be addressed this year
 - Three concerns need to be addressed
 - **Computer Science Weakness & Concerns**
 - Continuous Improvement – show that the assessment plan results in continuous improvement of the program. (Weakness)
 - Timely advising so students take prerequisite courses for their chosen option (Concern)
 - Low level of faculty development activities (e.g., attending conferences). (Concern)
 - **Software Engineering Weakness & Concerns**
 - Need to document that appropriate engineering standards and multiple realistic constraints have been incorporated into the Senior Design Project. (Weakness)
 - Document that we hired a new faculty member. (Concern)
 - **2011 Goals**
 - Increase Enrollment
 - Decrease Administrative Overload
 - Enhance (External) Image
 - Address ABET Accreditation weakness
 - Increase research activity

- **Plan**

- **Increase Enrollment**
 - R.E.A.L. Scholarship Program – Year 4, raise additional funds and promote it
 - Develop overall recruiting strategy
 - Improve retention (22% average)
 - Alumni Involvement
- **Decrease Administrative Overload**
 - Streamline procedures where possible
 - Implement assessment database
 - Make more information available to all
 - Improve advising for different situations
 - Additional curriculum worksheets for special situations
 - FESP (Foundations of Engineering and Science Program)
 - Transfer students
- **Enhance (External) Image**
 - Website – keep content current, include short news articles
 - Improve Tech-wide Visibility
 - Critical Thinking Component in General Education
 - Add Computational Thinking to Gen Ed courses
 - Computational Science courses – integrates scientific disciplines with math and computer science
 - Competitions – ICPC, multidisciplinary competitions
- **Address ABET Accreditation Weaknesses**
 - Request reaccreditation report evaluation (January, 2012)
 - Submit report (June, 2012)

Questions, comments or suggestions:

- Was the Web Science course a success?
 - Information Rick provided was good. Contents of the class were enjoyed. Sessions were available online. SKYPE and a speaker phone were used for each session which met once a week. (*Michele Van Dyne & Celia Schahczenski*)
- What are the enrollment trends at other universities?
 - Other universities are experiencing some growth. U of M and Montana State hit bottom at the same time as MT Tech but their numbers are going up. (*Jeff Braun*)
- We need to do a better job at educating people about Computer Science; what it is and what our program is about. (*Jeff Braun*)
- I would like to see a quarterly newsletter. (*Terry Brandt*)
- Recruit at summer computer camps. (*Davis Almanza*)
- Encourage CS students to work at the computer camps. (*Keith Vertanen*)
- Develop application for Smartphones. Do workshops at high schools. (*Terry Brandt*)

New CS Department Web Site (Frank Ackerman)

Frank introduced the new CS department web site to members. He informed members that the department wanted a web site that would serve as a good marketing tool and facilitate community building. There is also an associated Facebook site for more informal sharing. The department funded a student to put the new web site design in place over the summer. The site is now “live” although the department is still working on various parts of it. Some of the highlights of the web site are: Prospective Students, Current Students, Alumni, Picture Show-Overview-Mission-News on home page. The sidebar accesses information of interest to all constituencies. Web site can be found at cs.mtech.edu.

Computer Science Program Assessment (Michele Van Dyne)

Michele began her presentation with a general overview of the Program Outcomes Assessment process. She informed IAB members that last spring was the first semester the department used the ABET program outcomes. For consistency, Michele also reported assessment results from fall 2010 using the old program outcomes the department previously developed. The program outcomes are related to the program’s educational objectives and also to course outcomes so that it can be ensured that all students meet these outcomes at the time of graduation. Course outcomes are tied directly to program outcomes and are quantitatively assessed at the completion of each semester for all core courses to measure the extent to which each

outcome is met. For each program outcome the faculty can also specify how that outcome will be addressed. Michele informed faculty that nothing fell below the 70% threshold; the highlighted are areas that came close to falling below. She also noted that ABET does not specify course outcomes; the department uses these to tie individual courses to their contribution to program outcomes.

CAC – Computer Science Program		Spring 2011
a	(a) An ability to apply knowledge of computing and mathematics appropriate to the discipline	72.75%
b	(b) An ability to analyze a problem, and identify and define the computing requirements appropriate to its solutions	83.13%
c	(c) An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs	90.90%
d	(d) An ability to function effectively on teams to accomplish a common goal	97.50%
e	(e) An understanding of professional, ethical, legal, security and social issues and responsibilities	87.00%
f	(f) An ability to communicate effectively with a range of audiences	96.00%
g	(g) An ability to analyze the local and global impact of computing on individuals, organizations and society	97.50%
h	(h) Recognition of the need for and an ability to engage in continuing professional development	75.00%
i	(i) An ability to use current techniques, skills and tools necessary for computing practices	89.40%
j	(j) An ability to apply mathematical foundations, algorithmic principles and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices	71.38%
k	(k) An ability to apply design and development principles in the construction of software systems of varying complexity	88.40%

EAC - Software Engineering Program		
a	(a) An ability to apply knowledge of mathematics, science and engineering	78.20%
b	(b) An ability to design and conduct experiments, as well as to analyze and interpret data	73.50%
c	(c) An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustain ability	91.80%
d	(d) An ability to function on multidisciplinary teams	97.50%
e	(e) An ability to identify, formulate and solve engineering problems	87.67%
f	(f) An understanding of professional and ethical responsibility	87.00%
g	(g) An ability to communicate effectively	96.80%
h	(h) The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context	97.50%
i	(i) A recognition of the need for and an ability to engage in life-long learning	81.25%
j	(j) A knowledge of contemporary issues	93.50%
k	(k) An ability to use the techniques, skills and modern engineering tools necessary for engineering practice	88.00%
SEC-1	(EAC-1) the ability to analyze, design, verify, validate, implement, apply and maintain software systems;	92.43%
SEC-2	(EAC-2) the ability to appropriately apply discrete mathematics, probability and statistics, and relevant topics in computer science and supporting disciplines to complex software systems; .	82.00%
SEC-3	(EAC-3) the ability to work in one or more significant application domains;	97.50%
SEC-4	(EAC-4) the ability to manage the development of software systems	97.50%

Previous Program Outcomes		Fall 2010	2009-2010	2008-2009
CS/SE 1	Understand professional and ethical responsibilities	94.50%	75.13%	77.00%
CS/SE 2	Work with clients and co-workers, have tact and see things from other perspectives	75.00%	93.80%	92.00%
CS/SE 3	Identify and evaluate technical alternatives	75.71%	86.41%	89.73%
CS/SE 4	Identify and evaluate non-technical alternatives		97.33%	100.00%
CS/SE 5	Apply oral and written skills effectively	79.33%	86.80%	94.09%
CS 6	Use the techniques and tools of modern computing and software development	85.50%	87.76%	84.56%
SE 6	Use the techniques and tools of modern software engineering practice	80.00%	91.44%	85.17%
CS/SE 7	Work effectively in multidisciplinary teams	100.00%	100.00%	100.00%
CS/SE 8	Understand the need for professional development and historical perspective	79.00%	67.13%	76.00%
CS/SE 9	Learn new technologies independently	83.50%	88.83%	100.00%
CS/SE 10	See a multistage project/task through to completion	100.00%	83.75%	95.50%
CS/SE 11	See the essence of the problem and design a solution	77.00%	80.60%	91.73%
CS/SE 12	Stay current with respect to societal issues relating to computer technology	86.50%	83.80%	85.00%
CS/SE 13	Apply quantitative methods to software development	100.00%	91.50%	84.25%
CS 14	Be able to apply skills gained in math science engineering and business logic	78.00%	67.54%	76.57%
SE 14	Be able to apply skills gained in math science engineering and business	78.00%	78.62%	70.13%
CS/SE 15	Be technically proficient and perform all phases of software development	72.29%	84.77%	86.46%
CS/SE 16	Work effectively in one or more significant application domains	89.00%	100.00%	100.00%
CS 17	Observe, use, reflect on, and refine software development and computing infrastructure	89.00%	100.00%	91.75%
SE 17	Observe, use, reflect on, and refine software development and business processes	94.50%	91.75%	71.00%

Michele continued her presentation informing IAB members of the Senior Assessment Exams – ETS Major Field Test which is administered to senior students. A major advantage of the ETS Major Field Test is that it provides a standardized method of comparing our students’ performance and the efficacy of the program to other programs across the nation. Michele informed members that the students do very well on this national exam.

Computer Science Major Field Test

	Mean*	2008 Score	2008 Percentile	2009 Score	2009 Percentile	2010 Score	2010 Percentile	2011 Score	2011 Percentile
Total Score	148	160	85%	167	95%	164	95%	163	90%
Programming Fundamentals	55%	74%	95%	71%	90%	75%	95%	76%	95%
Discrete Structures and Algorithms	35%	47%	90%	55%	95%	48%	85%	48%	90%
Systems (Architecture, OS, DB, Networking)	42%	45%	55%	62%	95%	60%	95%	48%	70%
Number of Students	7332	7		3		4		3	

*Mean is based on 217 institutions

Educational Objectives Assessment (Celia Schahczenski)

Celia gave a brief explanation of objectives. Objectives are statements that describe the expected accomplishments of graduates during the first three to five years after graduation. She informed members that faculty will contact at least 50% of the alumni four years after graduation via an on-line survey. The educational objective has been met if 70% or more of those surveyed answer 7 or above on a 10 point scale. The survey can be found on the CS webpage at <http://cs.mtech.edu/main/index.php/alumni/alumni-sruvey>.

Celia presented the results from the recent alumni survey. 8 out of 9 SE graduates three to five years out responded to the survey (89%) and 9 out of 15 CS graduates responded (60%).

Responses:

Both CS and SE graduates responded to the statement “I have adapted, thrived, and contributed in an industry setting”

1 – completely inaccurate

10- completely accurate

SE	CS
Average: 8.3	Average: 8.3
86% answered 7 or above	89% answered 7 or above

SE graduates responded to the statement “I have improved software quality and the state of the art by promoting the adoption of best practices and supporting those best practices that are already being used.”

1 – completely inaccurate

10- completely accurate

SE
Average: 6.1
50% answered 7 or above

CS graduates responded to the statement “I have improved software quality and the state of the art by promoting the adoption of best practices and supporting those best practices that are already being used.”

1 – completely inaccurate

10- completely accurate

CS
Average: 7.3
100% answered 7 or above

Both CS and SE graduates responded to the statement “I have demonstrated an ongoing commitment to professional development”

1 – completely inaccurate

10- completely accurate

SE	CS
Average: 7.5	Average: 6.1
75% answered 7 or above	56% answered 7 or above

Celia continued her presentation reporting the results from the data collected from the survey. In summary:

Software Engineering Educational Objectives: Assessment Results

1. adapted, thrived and contributed in an industry setting or completed a graduate program; **Satisfactory**
2. improved software quality and the state of the art by promoting the adoption of best practices and supporting those best practices that are already being used; **Not satisfactory**
3. demonstrated an ongoing commitment to professional development; **Satisfactory**

Computer Science Educational Objectives: Assessment Results

1. adapted, thrived and contributed in an industry setting or completed a graduate program; **Satisfactory**
2. contributed to the continual improvement and competitiveness of their workplaces; **Satisfactory**

3. demonstrated an ongoing commitment to professional development; **Not satisfactory**

Celia requested feedback from IAB members concerning question SE 2 and CS 3.

- IAB members supported changing the wording for SE Educational Objective #2 to: “contributed to improved software quality and”
- Members also supported revising wording in the survey for question pertaining to “professional development” so there is less emphasis on conferences and training.

Questions, comments or suggestions:

- Maybe the wording is too strong; SE 2
- Setting too high of a mark; SE2
- Problem with interpretation of wording, add examples; SE3
- If employee is not willing to improve their skills they are not going to last in the company; CS3
- Consider contacting employee’s manager concerning professional development; CS3
- Case studies can help students learn; CS3
- The willingness to continue to attend trainings, professional development in technology are characteristics companies are looking for in an employee; CS3
- Companies that invest in their people are a lot better off; CS3
- Companies should continue to invest in their people during slow times to keep ahead;CS3
- Honesty, desire to learn, good work ethics are the characteristics we look for in an employee;CS3
- Computer Science employees should have a drive, be ambitious.
- Unemployment rate in IT is at 3.8; IT is still successful. There is a far greater demand than supply.
- Employees need to have the ambition to go out and learn even if the company doesn’t provide the training; CS3
- Consider offering an apprenticeship type of program at your company. Could bring students as young as 6th – 7th grade into the program.

Industry Update – (IAB Members)

- **Kevin McManus, ikuw Solutions:**

Project team composition: Multi-disciplinary Teams

Industry trends: Moving towards mobile devices, Smartphones, iPad, and Tablet PCs.

Preferred skills for new-hires: Personal characteristics of new-hires: honesty, good work ethics, desire to learn. New-hires need to know Object-Oriented Programming and understand why design is important. A particular programming language is not important. New-hires should have strong skills in Java, VMware, OS, and Android development.

- **Davis Almanza, Computers Unlimited (CU):**

Project team composition: Multi-disciplinary Teams

Industry trends: Moving towards mobile devices and web.

Preferred skills for new-hires: Object-Oriented Programming skills (Java, C++, or C#), UI Design, business related applications, .NET, ability to work in a multi-disciplinary team (product owners, developers, tester) environment. CU is moving towards more of an Agile/Scrum development model. Not much work in mobile applications yet, but they are studying it.

- **Jason Davidson, Court View Justice Solutions:**

Project team composition: Multi-disciplinary Teams, though not many teams

Industry trends: Huge open libraries

Preferred skills for new-hires: Fundamentals (e.g., Data Structures, Algorithms, OS), UI Design, Object-Oriented Programming, Java Script. Use scrum and other agile development methods. Small company so developers need to be able to work directly with customers.

- **Mike Lee, 360networks:**

Project team composition: Multi-disciplinary Teams

Preferred skills for new-hires: Object-Oriented Programming, Java Script, Networking skills, client-server architecture, ability to work with different programming languages at once.

- **Tyler Dusek, Schweitzer Engineering Laboratories (SEL):**

Project team composition: Multi-disciplinary Teams of leads (Power Engineer, Firmware Engineer, and Software Engineer, Testing, Technical Writers). Leads have teams with all the same engineers.

Industry trends: PC software (1/5 to 1/6 of SEL), Windows development, communication with data base backend, .NET, web interface, use low level libraries, file systems.

Preferred skills for new-hires: HTML, Java Script, C++, perl, python, C code for firmware, Microsoft Silverlight. No mobile device development.

- **Terry Brandt, Zoot Enterprises, Inc:**

Project team composition: Multi-disciplinary Teams (cross functional teams with project managers, developers, engineers, QA).

Industry trends: Zoot Enterprises deals with the financial industry so a secure infrastructure and code is highly valued. Code is audited constantly. In the future, Zoot will be moving towards mobile devices as security improves.

Preferred skills for new-hires: Code security, Java, C, C++, python, object-oriented design, multi-threading, network efficiency, ability to work in stressful environments, ability to deal with conflict, ability to think and solve problems, desire to keep learning, have a can do attitude.

- **Brent Foley, HP (Not present at meeting – emailed information)**

Project team composition: Our teams at HP are usually around 8-15 people. Some examples of different teams are copy, fax, UI, security, print, qualification tools and architecture, build team, performance, etc. Every team has a master architect and a few experts. These people have the most experience and knowledge in their areas and make sure that the team is on the right track technically while the manager determines priorities and what work needs to be done. People can choose to stay on one team to gain depth in that area or they can move around when opportunities come up to gain breadth.

Industry trends: HP has given up in the mobile device market. HP sold their PC business and abandoned webOS and Palm. HP really is not doing much in the mobile or tablet market, but we are developing our firmware for our printers on WindowsCE mobile.

Preferred skills for new-hires: In addition to core courses: experience in C++, C#, or Java, object orientation, experience with testing (test driven development), experience with programming projects outside of school (internship or even side projects students did for fun on their own), design (UML, high level, good OOP), experience with source code management (SCM). Testing experience isn't crucial but it would definitely make a graduate stand out above others if that experience is there.

What do other Computer Science departments do? (Keith Vertanen)

Items the CS department should consider doing that other CS departments do:

- Single Fundamentals of CS course for CS/SE majors, engineers, sciences (e.g., Princeton's COS 126)
- Team work with real companies – WSU SE capstone course has real customer (SEL)
- Recruitment of small schools via alumni
- Keep improving website
- Chicks and Science (Course offered in Billings)

Robotics (Michele Van Dyne)

Michele gave an overview of projects using the Lego Mindstorms robots. Students in her Artificial Intelligence class used them to maneuver through a maze. In her Computational Thinking course, Michele was taught to control the robots with her phone. She accomplished this by downloading a commercially available application. Michele also introduced the newest member to the CS department, the "NAO Robot". NAO will be used for recruiting and learning Linux. Jake Fjermestad (CS student) will be working with NAO for his senior project. Jake plans on programming NAO to do card tricks and perform other behaviors that will be conducive to recruiting.

Welcome – Chancellor Don Blackketter

Chancellor Don Blackketter welcomed the board members to MT Tech and thanked the members for serving on the Industrial Advisory Board of the Computer Science and Software Engineering programs. Dr. Blackketter presented information to members concerning things that are going on around MT Tech. The expansion of the campus wide capstone courses; including engineering and computer science, pursuing of doctorate programs, new dorms for freshman students and the showcase of project that will be promoted in the spring; students will be displaying their projects and successes. Dr. Blackketter emphasized to the board and the CS faculty that we need to show our students the excitement of the CS program.

Games – (Frank Ackerman)

Frank began his presentation informing members that games are just not for kids anymore. He emphasized that our students love them and spend a lot of time playing them. Frank continued his presentation discussing games in higher education.

Games in Higher Education:

1. Traditional exercises can be replaced by games motivating students to put in extra effort doing the exercises and giving the course staff an opportunity to monitor how the students work with the exercises in real time.
2. Games can be used within a traditional classroom lecture to improve the participation and motivation of the students through knowledge-based multiplayer games played by the students and the teacher.
3. Games development projects can be used in computer science or software engineering courses to learn specific skills.

Games at Tech

- Wii in the Student Union
- New library game bench (educational and recreational)
 - Student ACM staffs advisory board and maintains introductory instructions manual
- Student ACM LAN parties
- Student URP research project
- Faculty research
- Using a game in SE Design & Architecture course to motivate use of design patterns

- Senior SE Design Project
 - Two years ago – 3 hours of game play illustrating advanced algorithms (a mod to NWN)
 - This year – building a “collapse” game using an engine

New Web Science course – completed spring 2011 (Keith Vertanen)

Keith gave an overview of the Web Science course that was taught in Spring 2011. He requested input from IAB members on what should we add or delete.

Web Science: Spring 2011

- Networks
- Data formats, compression
- Server-side scripting
- Concurrency
- Scalability, state management
- Web services
- Encryption

Assignments: Spring 2011

- Socket client /server
- JPEG compressor/decompression
- Streaming audio synched with video
- Merge 2 mono audio streams
- Web shopping cart
- Paper on web services

What we should add:

- Advanced web development
- HTML File – backend
- Large scale search
- Server-side script language PHP
- Shopping Cart software

What we should delete:

- Socket client/server
- JPEG Compressor/decompression
- Merge 2 mono audio streams

IAB Members (requirements, benefits, suggestions for future meetings)

Jeff emphasized the importance of the IAB members input on assessment, curriculum and their assistance with getting things changed with administration. Jeff asked the members for their support for a course all students would be required to take. The course would be comparable to the course Keith taught at Princeton (COS 126). The course would be an Intro CS course which was a huge success at Princeton. The department would also like to pursue adding the Computational Thinking course as a General Education course and would like the members support.

- IAB members concurred to support the CS department.

Jeff asked members if it was reasonable to remove companies from the IAB if they have not participated/attended meetings.

- IAB members concurred it is reasonable.

Jeff asked members if there are any objections having next year’s IAB meeting in conjunction with the Career Fair?

- IAB members voiced no objections

Discussion and Wrap-Up

Jeff asked for input from the IAB members concerning the issue of participating in a campus wide capstone course. Jeff stressed to members that the CS program would have to take out internships; which he prefers not to give up. He emphasized that he would like to see students work on multi-disciplinary teams; which would be offered in a capstone course and it helps with Software Engineering ABET accreditation. Frank informed members that all students work in a team setting in the Software Maintenance course. After further discussion the faculty concurred to leave the program as it is and not pursue participating in a campus-wide capstone course for computer science majors. The department would consider having the software engineering students participate since it helps satisfy Software Engineering program outcome EAC-d.

Brent Foley noted in his email that the school wide capstone course sounds valuable. He wonders if companies looking through resumes would weigh it the same as someone that had an internship.

Jeff asked IAB members their thoughts on establishing a student lounge for the students?

- IAB members liked the idea for students to have a place to hang-out at and visit.

Jeff thanked the members for their attendance and support to the Computer Science program.

Meet adjourned.

Respectfully submitted,

Tami Windham