FACULTY SPOTLIGHT

Jay Sneddon
Instructor of the Practice in Information Technology

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DSU CENTER FOR TEACHING & LEARNING
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Prof. Jay Sneddon, Instructor of the Practice in Information Technology, has been at Dixie State University (DSU) for 6 years. Previously, Professor Sneddon had been working full-time in the IT industry for around 25 years. An opportunity to change career paths came when DSU offered him a teaching position.

Prof. Sneddon is especially proficient in networking and IT Security, to which he devoted much of his time in his pre-teaching career. As well as this, he enjoys PC building, which he does both in the classroom and out.

INNOVATION IN TEACHING

Sensory Experiences in the Classroom

Professor Sneddon believes in doing as much hands-on work as possible when it comes to teaching. A common challenge with teaching in technology is that there are many intricate details that can be difficult for students to master. Prof. Sneddon has found through his teaching that if students have a sensory experience involving the acronyms and the technology, then they remember the process much stronger. Because of this, he has been working with his department to increase the amount of hands-on opportunities that IT does. Sneddon was able to introduce hands-on experiences, even the early classes in IT education such as building, wiring, racking units, and more. Not only are students learning the techniques, but they are learning how to troubleshoot something physically using tools and mechanics.

For example, Prof. Sneddon’s networking class has a big box of wireless access points at the start of the semester. The students unbox them, put them together, and do some rudimentary setup to secure them. All of the terms that they are learning in books apply to what they are building in class, which Prof. Sneddon found makes a big difference in the student’s comprehension.
Cross-Curricular Collaboration

For this semester in particular, Prof. Sneddon was looking for a resource involving his IT 1200 class, which is Computer Hardware/Windows OS. The class was particularly difficult because in order to build and maintain a standard computer, it takes hundreds of hours of work, which would be difficult for students only working in hour segments. Despite this, Prof. Sneddon still wanted to have a meaningful hands-on experience for his students. After some research, he came to the idea of having students program an arcade machine. Retro arcade machines are a very popular PC build, and can be made using raspberry pi – a tiny and affordable computer that can be used to learn programming through fun, practical projects.

Prof. Sneddon obtained retro arcade buttons and joysticks, as well as technology like speakers and backlights, so that the students could program the games they chose with the controls that they were meant to be used with. However, Prof. Sneddon wanted to not only have the students create the working game, but also be able to create an arcade machine for the students to mount them in. In order to make this a reality, he decided to reach out to the neighboring Design Department. He got in contact with Rachel Ramsey, Haylee Ream and Jeremy Forsberg, and proposed to them an idea for a cross-class partnership. While his IT 200 class would build and wire all the electronics for the game, the design 3850 students would create the outsides of the machines, choosing the colors for the buttons and joysticks, as well as creating the art for the machine. The design professors were extremely enthusiastic about the idea, and agreed to have the classes work together to make it a reality.

Prof. Ramsey was able to explain some of the design class’ expectations for the collaboration. The two classes had meetings together during class time so that they could learn what was expected of them for the project. The design students created a wrap for the outside of the machine, which could be removed, making the machines reusable. The machine shells were designed and then laser cut in the university’s innovation plaza makerspace, and can be flat-packed for easy storage between semesters. The doors to the casing are magnetic, and as such, the students can easily access the inside of the machines. Each arcade machine is unique to the game that is being played on it, and each has a one or two player option. There were eight groups in total, and each chose a different game and theme that they wanted for their machines.

Positive Student Outcomes

The dialogues between students showed just how much power a collaboration between departments and students can be. The students listened intently to each other’s ideas and suggestions, many of them changing their minds and making much different projects than they had planned to in the beginning. One IT Student group wanted to do a space theme for their arcade machine, but their design student group informed them that many of the other groups were doing similar themes. After learning this from the design students, the IT students accepted that advice and decided to do a more unique theme. It has been a great experience for both sides, as the design students had to work with a client that proposes a design and has specific requirements, while the technology students had to create the project and communicate with the designers efficiently what they want as their design. Both Prof. Ramsey and Prof. Sneddon have found the project extremely beneficial and have decided to do it in future semesters.
GET TO KNOW ME BETTER

WHAT IS YOUR MOST CHALLENGING TEACHING EXPERIENCE?

Developing hands-on labs has been one of the most challenging parts of Prof. Sneddon's career, but it has also been one of the most rewarding. It takes an insane amount of work and dedication to put together. As well as this, the labs are unpredictable - they're not in a conceptual environment, and so things can go wrong. Sometimes in these hands-on labs, each student can have a different experience than the person next to them. But, when these hands-on labs vary in result, it teaches students even more about how their career is in practice. Sometimes things can go wrong or have variations, so when this happens, Prof. Sneddon just explains to the students that it's okay, and here is why these variations happened in this situation.

WHAT IS YOUR BEST TEACHING RESOURCE?

To Prof. Sneddon, his department is his greatest resource. Joe Francom, Curtis Larsen, and Bob Nielson are professors he has worked with since being at DSU. He has learned to respect and admire them for their advice. They know what they are doing, they are smart and experienced in their field, and they relate to and care about their students. The department has continually grown and updated, and Prof. Sneddon has been honored to be a part of a department that is concerned about helping the students succeed.

WHAT IS YOUR FAVORITE TEACHING EXPERIENCE?

The best part of teaching for Prof. Sneddon is always working with students. He enjoys seeing students overcome challenges in the class and succeed, and then, further on, seeing those students graduate and go into the field with good paying jobs that they are prepared for.

WHAT IS YOUR FAVORITE CLASS TO TEACH?

Prof. Sneddon, while he enjoys all of his classes, has a special place in his heart for the IT 2400 course, introduction to networking. He made a living off of networking for 25 years, which has led to him sharing practical experience and expertise with his students.

Sneddon also enjoys IT 2700 (Information Security), because in his previous profession, he witnessed firsthand incidents of internal theft from employees, and as such has great experience in securing data. Because of this, the security class is just as much about organization as it is about

WHAT DO YOU LIKE TO DO OUTSIDE OF WORK?

Outside of work, Sneddon enjoys astronomy and does a lot of stargazing. He runs and does road racing running events as a result. Prof. Sneddon also enjoys gardening, which has been a welcome challenge in the dry desert climate of St George, as compared to his previous home in Twin Falls, Idaho.
hacking techniques. It’s about being aware of your environment and creating a good leadership framework for your company and employees.

WHAT ADVICE WOULD YOU GIVE TO OTHER FACULTY TEACHING AT DSU?

Prof. Sneddon learns so much from other teachers, more than he thinks that they will ever learn from him. But, if he has any advice to give, it would be that if you could relate your topic to something that the students already have interest and experience in, (like arcade machines), they will learn to grasp it so much better. Create activities that engage students in active learning and use and apply all of their senses, because sensory learning leaves such an impact on students and their memory.

STUDENT REVIEWS:

“He’s incredibly dedicated to every one of his students, despite their challenges. I can attest that Professor Sneddon spent over two hours working through basic subnetting calculations with me while simultaneously helping eight underclassmen braid cables. He’s respectful, knowledgeable, and deeply caring.”

“Somehow, he notices when I need help, and will assist me right away, or will ask if any of us if we need a better explanation, more examples, or assistance on what we are working on. Additionally, he is a very fun teacher and that is what keeps me attentive in class.”

“To put it simply, Jay cares about the students. His knowledge is near perfect. His presentation is skillful. He is articulate. And he is funny! But most of all I know he cares about me and the rest of the students. That is what makes Jay great; he really cares about us. Jay is one of the best instructors I’ve ever had at any institution.”

“Has a great passion for IT and teaching, great teacher, willing to go out of his way to help you with whatever you need and to help you understand course material. He wants every single one of us to be successful.”

“Another thing that he does and I wish other professors would do, encourages students to help one another. Especially, by encouraging students who understand the material to help students that might be struggling.”