

## CalGIS 2008 Sustainability of Geospatial Education Programs Panel Discussion

### PANEL PARTICIPANTS

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### TOPICS

The panel met for an hour and ½ at CALGIS 2008, in Modesto, CA. This panel was organized by CGIA board members, Bill Budke and Chris Lewis and CalGIS Education Track Builder, Binita Sinha. Topics discussed were, enrollment challenges, advisory committees, internships, marketing programs and the Geographic Information Science & Technology Body of Knowledge (<http://www.aag.org/bok/>). It is so important for program developers and educators to share ideas and strategies that strengthen and sustain California geospatial technology programs. Thank you to all of the panelists for their contributions to this important conversation.

**Enrollment challenges:** We are being told that there is a shortage of people trained in Geospatial Technologies, yet many colleges experience GIS course cancellations due to low enrollment. What has your experience been regarding enrollment?

1. **Warren:** Simply getting students into the class. It works to customize scheduling of the time and tailoring to the student's needs and interests.
2. **Binta:** We have more success with evening classes; the daytime classes tend to be under-filled, since many prospective students have a full-time job. Transferability of courses is a concern for students moving to a CSU or UC.

3. Hugh: Classes rarely get cancelled, but advanced classes are more difficult to fill. We have classes that are offered over 8-16 weeks and we have reduced all to 3 units each. Evening classes are more successful when they meet one time as opposed to two times per week. Our certificate is 31-34 units.
4. Bill: Modified certificate that is customized to grants. Courses are offered to accommodate the logistics of students working in the field and to apply to their current jobs. There is a population unaware of the capabilities, even in other departments on campus. We need to branch out and show students in other departments how to use GIS. GIS is currently offered in the academic department at Ventura College and we may need to move it to the career-technical department. It is important to consider moving class times to find the times that gets a successful enrollment. People (Agencies) who use GIS know the value of it. Students who don't know how it applies find it to be "extra" – If I had more time...
5. Jason Schwenkler: Colleges within CSU, Chico don't all know about the program. Many students want core-training and don't want to go through an entire certificate program.
6. Stuart McFeeters: The program suffers when there are budget cuts, creating a very shaky program. The new Dean saw the benefits of a strong Geography Department and now the program is stable and improving. We still struggle with enrollment. Not all of the faculty share the same opinion about the program. The lab can accommodate 32 students, but we try to keep it to 20. The administration doesn't understand the difficulties that high enrollment numbers makes. We are in the process of reinstating the Master's program. Currently, only one instructor is teaching four classes, so can't dedicate their time to projects.

**Advisory Committee:** Do you have an Advisory Committee and if so, how do you put together and maintain an involved committee? What has worked for you?

1. Hugh: Our GIS Advisory Committee shrank over time, but has been reconstituted – our Vocational Technical Education Act (VTEA) funding mandates that we hold these meetings. Advisory Committee meetings provide an opportunity to gain information on the workforce needs and professional goals.
2. Binita: Advisory Committee recommendations and ideas are implemented through the program. Constitutes County offices, local businesses, students and staff.
3. Warren: Our program has an Advisory Committee. TOP code – Every course needs to be listed under one code. Argued that GIS should be broader for funding purposes. It is listed under vocational education.

**Internships:** Does your program include an internship option?

1. Warren: We have a GIS 290 course. This helps to develop skills and a portfolio. They don't place students in internships. These can be one student, paid or not.

2. Binita: Our program recognizes the value of internships. One to four-unit Co-Op programs can be integrated with internship. It not required to earn the certificate, but is highly recommended.
3. Hugh: We require only one unit of internship for the Certificate and AS Degree. Students come up with three objectives to be met by the end of the internship and the faculty does one workplace visit.
4. Bill: An internship is part of the certificate program. Students work closely with instructors. Internships require a certain number of hours and enrollment requirements. We also have a “Directed Studies” in lieu of internship because of the unit requirements.
5. Jason: The GIC has an internship coordinator. Internships are not required in the certificate program. However, the new Dean supports and encourages internships. She feels interns are far more successful in the workforce. At the GIC, One to five interns are paired up with a qualified Analyst. Tasks include aerial photo interpretation.
6. Stuart: No internship program yet. Hope to create an internship class.

**Successful Marketing:** How do you market your program?

1. Warren: Marketing is very important. Promoting GIS is the most important task for a successful program. As far as sustainability, primarily it’s the promotion and diversity of offerings and flexibility to (for us) to work with industry scheduling, custom lessons, etc.
2. Binita: Quality marketing products – visual material, such as brochures are helpful. Comes out of budget so it is difficult from a funding standpoint.
3. Hugh: We display brochures around campus, and participate in career exploration day at American River College.
4. Bill: Annual GIS day draws large crowds. We will continue the momentum for success. Brochures also deliver the information.
5. Jason: Website and word of mouth. Not as many continuing education people coming through CSU, Chico, a different market.
6. Stuart: The Dean promotes the program. Also, phone calls and the Internet. Now that the Department is stabilized it can be promoted to other departments. Word of mouth will travel fast.

**Body of Knowledge (BoK):** Do you utilize the Geographic Information Science & Technology Body of Knowledge in your curriculum development (<http://www.aag.org/bok/>)?

1. Hugh: This is oriented more toward university education vs. workforce needs, but it is a very important template for codifying the geospatial sciences.

2. Bill: Templates for career technical courses in GIS. Found in 15 sections of career-technical workforce plan for the state.
3. Warren: H.S. Faculty and Community College faculty focus.

### **Audience Questions and Comments**

1. There is a need to teach teachers about tools to learn by. If teachers don't know about the resources, they cannot relate that to students.
2. Bill – There is a need to have a career technical program in order to apply for CTE (grant). They allow teachers to introduce GIS as they see fit. Give time , dollars and resources in order to ensure that it works. They share tools, such as GPS units, among school districts.
3. ROP and Technical Prep funding is in jeopardy, but CC's offer a lot of this.
4. Vocational program in H.S. – they pay to take GIS. 2 Universities now accept for credit – counts dual enrollment/articulation.