



Summer Bridge Program Radford University

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SBP 2006



Motivation (1)

- # of Undergraduate Students in CS/IT at RU

Fall Semester	Total Student Count	Female Student Count	Female Percent
2000	463	104	22.46%
2001	551	119	21.60%
2002	522	94	18.01%
2003	414	50	12.08%
2004	367	38	10.35%
2005	342	29	8.48%
Grand Total	2659	434	16.32%



Motivation (2)

- Retention Rate of Female Students in CS/IT at RU

Fall Semester	Female		
	Cnt	Ret	Ratio
2000	104	95	91.35%
2001	119	91	76.47%
2002	94	70	74.47%
2003	50	41	82.00%
2004	38	30	78.95%
2005**	29	N/A	N/A
Grand Total	405	327	80.74%

** As of 2005, this group has not been at RU long enough to calculate the 1 year retention rate and was not used in the overall total.



CS/IT field means...

- Dept. of Information Technology at RU (Concentrations; www.radford.edu/itec)
 - Computer Science and Technology
 - Computer Science
 - Database
 - Software Engineering
 - Networks
 - Information Science and Systems
 - Information Systems
 - Enterprise Systems Development
 - Web Development



Goal

- SBP is a **residential summer camp** for female high school students, which is designed **to promote female students recruitment and retention** in the following field(s):
 - Year 2006: CS/IT
 - Year 2007: CS/IT and Math
 - Year 2008: CS/IT, Math, and Sciences



Action Plans (1)

- For a female high school students:
 - Expose female high school students to two project driven courses in the CS/IT (STEM) fields
 - Help them to meet their role models/mentors (female undergraduate students and female faculty members)
 - Help them to meet their peers (female high school students) who could support them when they choose a CS/IT (STEM) field as their major or future career.



Action Plan (2)

- For Parents of Female High School Students
 - Provide the information session on:
 - a job market in the fields (www.bls.gov)
 - an admission process at Radford University and Virginia Community Colleges
 - 2+2 agreement
 - a financial aid

Action Plan (3)



- For Female Undergraduate Students
 - Let them serve as a teaching assistant (or chaperon) and peer mentor in the SBP
 - in and outside of a classroom

(We've speculated that they are motivated by their own experience sharing to female high school students.)

SBP Summary



	SBP 2006	SBP 2007	SBP 2008
Target Fields	CS/IT	CS/IT, Math	CS/IT, Math, Sciences
Length	3 days	1 week	1 week
Target Participants	11 th and 12 th graders	11 th and 12 th graders	10 th , 11 th , and 12 th graders
Fee	Free	\$100 and a fee waiver is available	\$100 and a fee waiver is available
# of Participants	29	69	?
Funded by	CIST at RU	CIST & CAS, VCCS (NSF), Apple	CST, VCCS, PD



Recruiting Participants

- Career Coaches
 - Ask career coaches of VCCS to circulate the information on SBP registration
- Postal Mails and Emails
 - Send an invitation letter, a poster, and a brochure to principals, teachers (of CS/IT and Math related courses), and guidance counselors in 301 high schools and 17 governor's schools in Virginia
- SBP Website
 - Maintain a website at www.radford.edu/bridge.



Tracks in SBP

- Database Management (2006, 2007, 2008)
- [Network Management](#) (2006, 2007, 2008)
- Web Site Design, Creation and Scripting (2006, 2007, 2008)
- Create Computer Games (2007, 2008)
- Teaching Math in the 21st Century (2007, 2008)
- Mathematics and Social Analysis (2007, 2008)
- Mathematics in Art (2007, 2008)
- Introduction to Forensic Anthropology (2008)
- Understanding and Using Biotechnology (2008)
- Understanding the Stars (2008)

Sample Schedule SBP 2007



- Schedule



Evaluation



- Any changes in the number of female students or the retention rate of female students in CS/IT at RU?

	Fall 2007			Fall 2008		
	Applied	Accepted	Attend	Applied	Accepted	Attend
SBP 2006 out of 29	3	2	1 (IT)	5	5	5 (not decided)
SBP 2007 out of 69	N/A	N/A	N/A	3	2	1 (attend) 1 (not decided)

- Example of Survey Results (of CS/IT tracks in SBP 2006)

[Q] Would you consider CS/IT as a major or career after attending this program and why?

- Among 25 answers, 18 said yes (including 3 who were interested in the field before attending the program).

Lessons Learned



- Forming a good SBP team is the key
 - Instructors, TAs, Chaperons in a dorm, a SBP Coordinator, a Webmaster, etc.
- Better Follow-up and Evaluation Mechanism is required
 - We could not trace # of students who attend in a program related to the SBP at other higher education institutes
- Long Term Funding Source is required to have a longitude evaluation, a better follow-up mechanism, and a scholarship.

Questions?



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