

Seniors Complete 1st Research Experience Sequence *Program expected to expand by 50 Students in 2008-2009*

BY EDINA WANG

The 2007-2008 school year includes the first year of seniors who will have completed the Research Experience sequence. Some students have already finished the sequence in 1st trimester of their senior year.

One student in Research Experience in Humanities, senior Amber Creech, looked at the effects of certain activities on a student's GPA. Some of her findings included that students who make lower grades study more than students who make A's and they get two hours less of sleep each night than those who make at least a B+. "Students who participate in athletics between one or two hours make an A or higher," said Creech. "Watching television or time going on loops did not have an effect on student's grades."

Senior Jordan Humphrey also conducted research on a factor that could affect a student's grades. In particular, he looked at how a student's choice of a certain seat affected the student's grade in the class. "I found that students who sat near the front tended to do better in the class and had less problems seeing or hearing the instructor," said Humphrey. "I learned that a student's motivation for choosing his/her seat made a large difference in how well the student did the class. This could be because a student will choose to sit near the front if they are interested in or want to do well in the course."

Senior Cristy Rowley said, "My research topic was an investigation of race and mating preferences and whether environment could also affect preference. I looked for certain trends among races and stereotyped pairings. I found that social stereotypes, while exaggerated, do show actual trends in humans."

Also offered was Research Experience in Science. Senior Natalia Chodelski said, "I was trying to genetically engineer bacteria to be

resistant against certain antibiotics for medically purposes. It was difficult to get started, but it worked well. Unfortunately, my experiment gave inconclusive results."

"I tried to figure out bacterial counts in different types of milk using the Standard Plate Count, the actual test the FDA uses," said Andy Smith. "Does milk go bad before the expiration date? I found that FDA's guidelines were correct. The PFM milk did not last as long, but that is probably due to the dispenser nozzle being contaminated because so many people use it."

"I liked Research Experience because you figure out something on your own rather than taking a piece of someone's else paper," said Smith. "You also don't have the pressure that you will mess up this guy's lab."

Research courses also serve as an introduction to research for students

be a notch above other high schools."

Hall conducted her research on making certain bacteria resistant to antibiotics. Deciding the topic, she mentioned, was the hardest part of her research. "I had a few successful conjugations where I made E-coli resistant to antibiotics streptomycin and ampicillin," said Hall. "I checked the bio floor everyday even when I didn't have the class. Research Experience should be a five-day class."

Time was an issue for other students as well. "We need a set block like mentorship," said Smith. "It was difficult trying to do my experiment in a 50-minute block because I needed to run a 90 minute test. When I was getting used to the tests, I was on the bio floor for 3 hours a day."

"Not to point fingers or anything, but the students in the 'hard sciences' get much more time," said Rowley.

research as an admissions requirement," said Tom Clayton, Director of Academic Programs. "We plan on expanding research experience by 50 students each year."

Research will be mandatory once everyone can be accommodated. Estimating with 350 seniors, this would mean that the graduating class of 2012 will be required to do research. "There would be about 250 students in Research Experience and 100 students in either Mentorship or research in science or math courses," said Clayton.

"I don't think research as a requirement is a good idea as some students will take it [their research] in depth and other students will slack off," said Chodelski.

Humphrey said, "I think students will only get out of the class how much they put in. It makes sense to let the students who are interested participate and participate fully. I liked the research class, but it is not for everybody."

Smith believes requiring research is a good plan for the school. "We're not up to par with the other specialized schools," said Smith. "We have lots of people going to Siemens [Competition], but we're not winning. Thomas Jefferson High School is winning. A lot of our kids need to get into the lab."

Next school year, students will also be able to earn a research credential in mathematics through AP Statistics with Advanced Topics or Mathematical Modeling. Research credit will show up on the transcript. "We are adding recognition on the official transcript, which should be true by spring transcripts, for anyone who has completed research in science courses, mentorship, or research experience," said Clayton.

Clayton also said there has been discussion of having an altered school schedule with shortened courses one day or an afternoon with a period absolutely focused on research.

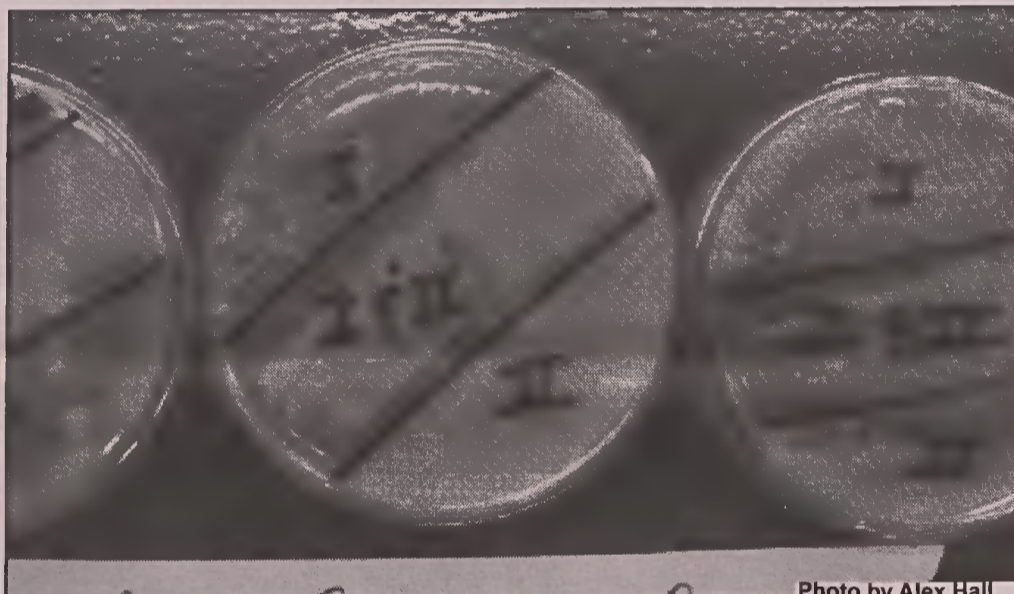


Photo by Alex Hall
Alex Hall's research included making three different types of agar plates: LB agar+strep, LB agar+amp and LB agar+amp+strep

who may not have had the opportunity before. "I came from one of those high schools where we didn't have a lot of science classes or equipment. This class really broadens your knowledge of certain things," said senior Alex Hall. "It also gives us the cutting edge, which is good because this school is suppose to

"Several students in my Humanities class ended up filing a request for another trimester or so to complete their proposals."

Roughly 100 of this year's juniors will be in senior year research experience. "We are basically making the assumption that colleges will look at

Gender	Race	# of Subjects	Amer. Indian		Asian Indian		Black		Chinese		Filipino		Japanese		Korean		Native Hawaiian		Vietnamese		White	
			F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M
Female	Amer. Indian	1	8	-	9	7	8.5	8	7	6.5	7	2	6	5.5	8	4	8	6	9	2	6	7.5
	Asian Indian	1	6	-	10	10	8	7.5	7	6.5	7	4	5	7	8	6	5	7	7	3	8	8.5
	Black	3	7	-	7.33	7.67	7.33	7.5	5.33	5.83	7.67	5.33	5.33	7.17	5.67	6.67	6.67	8.67	7.67	3	5.17	7.33
	Chinese	2	6	-	9.5	5.5	7	8.5	8	7	7.5	5	6.5	6.75	9	6.25	6.5	7.5	7	3.5	7.75	9.5
	Japanese	1	9	-	10	2	8.5	4.5	10	5	7	4	8	5.5	10	6	5	8	8	1	5.5	4
	Korean	2	2.5	-	5.5	6	1.75	3.75	6	2	4.5	1	5	4.25	4	2.25	2	3.5	2	1.5	6.26	6.5
	White	34	4.81	-	7.47	6.33	5.78	6.15	6	5.28	5.76	3.20	4.71	5.25	6.21	5.26	4.56	6	5.03	3	6.99	7.63
Male	Bi-racial (white-black)	1	6	-	9	3	6	9.5	8	8.5	5	5	6	5	7	6.5	5	5	3	2	4.5	1.5
	Black	1	4	-	5	-	4	-	5	-	5	-	5	-	5	-	4	-	6	-	6.5	-
	Chinese	2	4	-	6.5	4	2.75	4.5	6.5	4.5	3	3	3	3.5	7	5	2.5	5	2	1	5	5
Neutrois	White	12	4.75	-	7.08	4.5	4.58	4.9	7.08	4.35	4.5	3	5.33	4.15	6.92	5.3	5.42	3.7	6.08	2.6	6.25	5.29
	White	1	2	-	7	7	5.5	2.5	4	2	8	4	-	2.5	6	2.5	3	9	6	1	4	1.5

Cristy Rowley's summary of study results where each race rated their own race in terms of attractiveness. Rating were given on a one to ten scale (10 most attractive).

Credit: Cristy Rowley