Introduction & Methodology

Students enrolled in Summer Math 2008 at Harvey Mudd College were asked to complete a short questionnaire that asked questions about the structure and schedule of freshman year classes, and perceived difficulties inherent within them. A total of 64 completed surveys were returned. This report summarizes their responses.

Findings

Students were asked about the different workloads between first and second semester courses. The majority of respondents stated that the second semester’s workload was noticeably greater than that of first semester.

Figure 1. Semester Workload Comparisons

When considering which semester’s workload was greater, respondents were asked to provide examples of what contributed to this perception. Students provided multiple explanations within their responses, with most focusing on the addition of Physics 24 and a Physics Lab in the second semester, and the transition from “pass/fail” grading in the first semester to “letter” grading in the second semester.
Students were also asked to indicate which of the two semesters in their freshmen year were more difficult; most respondents (36) stated that the second semester was the more difficult one.

When asked what aspects of each semester’s content and structure contributed to perceived difficulty, respondents consistently noted several themes, including adjusting from a “pass/fail” grading system to a “letter” grading system, new, unfamiliar and difficult academic material, the expansion of Physics instruction (including a lab), difficulty adjusting to college life, and higher expectations placed on them by their professors.
Survey respondents were asked to provide insight into the advantages and disadvantages of HMC’s policy of assigning only “pass/fail” grades to first semester courses. Figures 5 and 6 summarize the major themes within the students’ responses. Students consistently noted that the advantages of the “pass/fail” policy included the ability to adjust to the academic and social aspects of college, and general sense of decreased pressure during their first semester in college. Disadvantages that were repeatedly stated included the risk of “slacking off” during the first semester, difficulties with transitioning to a “letter grade” system in the second semester, discouragement of establishing good study habits during the first semester, and the difficulty in understanding how much effort in the first semester would equate with (or was needed for) a high “letter” grade.
Survey respondents were asked to indicate whether the flexibility to take an elective course in their first semester at Harvey Mudd College would have been beneficial to them, and what they would have taken if given the opportunity. Figures 7 and 8 summarize the students’ responses. Most students (46) said that they would have liked to have had the ability to take an elective during their fall semester freshman year. Of those, most respondents stated that they would have elected to take a different humanities class, a foreign language, E4 or another engineering course.

**Figure 7. Elective as Beneficial**

Would you have found it valuable to have an elective in your first semester at the college?

- Yes: 46
- No: 13
- Maybe/Not sure: 3
**Figure 8. Elective course choices**

What elective would you have taken?

![Elective course choices graph]

The students responding to the questions on this survey were participants in the 2008 summer math program at HMC. Their participation in this summer program enables them to have more flexibility in their course scheduling in the coming semesters. Respondents were asked how they planned to use the flexibility gained from completing a math course over the summer. Figure 9 summarizes their responses.

**Figure 9. Upcoming Flexibility in Class Schedules**

Use of Flexibility in Schedule

![Flexibility in schedule graph]
Finally, survey respondents were invited to provide additional comments on how they would use their expanded class schedule flexibility. Their comments are below.

- After 1 year at HMC I am unclear if this degree is worth my time and effort. I think I should have gone big name, at least someone would have heard of us. This degree feels worthless. You should work on that.

- And getting finished with all of Core (except Hums)

- At this point, I'm not really sure - 4 seemed like a good idea at the time. Also, I passed out of 62 but not 61, so I would have had an extremely difficult first 1/2 of next semester otherwise.

- Be able to work in a chemistry lab so that I can start getting experience in the field I would like to pursue.

- Fall semester I am taking bio as well as another engineering course so that I can get some courses for my major out of the way and get rid of my core requirements.

- Flexibility includes the possibility of foreign language/elective/study abroad/ take a lighter load (sometime after second year). I like knowing that I have the flexibility to do any of those things easily even if I don't have specifics yet.

- Fulfill all freshman requirements (Chem. 21 and 22, Physics 24)

- Get more sleep; reduce stress

- I feel like the rigor and challenge of the HMC core is special and unique. People who know Mudd know that we are good problem solvers and well-rounded because of the Core. The core is great for teaching time management, bringing the school together by bonding students through a shared experience, and helping students understand the impacts of their work in many disciplines. Finally, the core is good for introducing new disciplines to students, or showing a new side of a discipline to students who are unsure of what they want to major in.

- I took summer math so I would have more time next year to take more mathematics major requirements (131, 171, 55)

- I want to be able to take more math CS electives and possible double major. I may also or instead need the flexibility for Hum courses since I'm interested in many off-campus courses.

- I will be taking math 136 this fall. Currently I am pursuing the math and physics major until I discuss which I prefer and this allows me to take more of those courses which interest me.

- I'd like to explore the different kinds of engineering available and see if I have a preference for one over the others. (So I'd like to try a take a lot of the 80s next year). Also I'd like to try and open up space in my schedule for 2 full years of clinic instead of 3 semesters.

- It was recommended to me by many upperclassmen to take summer math if I was thinking about becoming an engineering major. I'm still undecided but summer math allowed me to plan my schedule more freely so that I would have about the same amount of classes but a lighter workload.

- Keep my sanity. Taking E8 and E59 and usual core puts me at an intense 15.5 credits ... the free 3 credits will basically keep me sane ... will preserve what sanity I have left.

- My schedule for next semester looks prettier without a core math class in it. If I had to take a core math class, I'd probably have to give up one of the other courses I want/have to take. Also, taking a core math class would probably make my scheduling goals fail in that I'd either have to get up earlier or I'd have to take more than two classes in a row without a break.
• Sleep!
• Sleep!
• Take classes pertaining to my engineering major. Then I can get some of these required classes out of the way.
• Take higher level math classes in my second year since I've gotten these out of the way. I plan on being a math major but I didn't place out of any math courses so this helps me get a jump start on the higher level courses so I can make sure this is what I really want to do.
• Take the "80s" sooner and finish them as soon as possible. That way Junior year can be mostly tech electives and clinic and Hums.
• Use free time to do better in other classes