Implementation of *Summer Academy: First Year* University of California, Santa Cruz

Report Prepared for the Student Success Steering Committee
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Executive Summary

This study examines the implementation of the *Summer Academy: First Year* pilot in 2015. Nineteen incoming University of California, Santa Cruz students completed the Academy, earning nine college credits in three courses: (1) Genre Study: STEM, a newly designed writing course taken by all students (2 credits); (2) Navigating the Research University taken by all students (2 credits); and (3) A combination of five-credit courses: Math 2 (seven students), Math 3 (six students), Introduction to Biological Anthropology (six students), and Intro to Statistics (one student), depending on students' math placement exam scores. Students taking Math 3, Statistics, and Anthropology enrolled in the second five-week Summer Session and took courses with other UCSC students. All other courses were offered over seven weeks and included only *Summer Academy: First Year* students. Students lived together with three peer mentors at Merrill College and engaged in academic as well as co-curricular activities.

Respondents for this study were very positive about the program and all recommended that it continue in the future. Students valued the opportunity to get a head start on their college coursework, make new friends, meet faculty, and learn about campus life and opportunities. Instructors felt that the small class format was helpful for students and that the courses would benefit students in their STEM majors.

It is to be expected that new programs experience challenges as they roll out and respondents offered helpful suggestions for how to make the program operate more smoothly and with a larger number of students in the coming years.

- **Staffing** – Several administrators suggested that having full-year dedicated staff for the program would aid in all aspects of operations, especially recruiting, enrollment, and financial aid. The Peer Mentor model of supporting students worked extremely well, so keeping these appointments was viewed as important for future iterations.

- **Recruitment and Enrollment** – Many fewer students than anticipated enrolled in the program. Respondents recommended broadening the recruitment pool to include potential students before they SIR, those also recruited by other summer programs, and those who list STEM majors as their first or second option on the application. They also felt that some changes in the communication strategy would yield better results, namely offering more information about the program, including courses, and providing more details about the other summer experiences.

- **Course Offerings** – Students expressed an interest in having more choice in their course selection. Some administrators also felt that students who were ready might be able to begin their STEM coursework over the summer. This might also attract more students.

- **Co-Curricular Activities** – Students valued the time spent together outside of the classroom. They especially liked the trips that were directly related to college STEM experiences, such as the trip to Berkeley Lawrence Lab.

- **Aligning Courses to Second Summer Session** – Some suggested that having the Academy courses coincide with the five-week Summer Session would eliminate problems that were anticipated, but unavoidable with a small number of students living on campus outside the regular Summer Session. It would also allow for more course choice and possibly cut down on costs.

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Introduction

In summer 2015, the University of California, Santa Cruz (UCSC) launched the inaugural session of *Summer Academy: First Year*. The program brings incoming first year students to UCSC campus for a residential experience in which they take three courses worth nine credits and get a jumpstart on their college transition. The goal of the program was to help students intending to major in STEM fields progress in their early coursework so that they can both move through their courses more quickly and master the basic skills needed for challenging STEM majors. In addition, the program intended to help students with their transition to college by linking them to other incoming STEM students and providing them with the opportunity to learn about UCSC campus and resources prior to their fall matriculation. Administration felt this would be especially important for first generation college students and those from disadvantaged backgrounds.

Like the International Summer Academy, which serves incoming international students, the program was structured to run for seven weeks, beginning simultaneously with the second Summer Session at UCSC and extending two weeks beyond it, allowing students to remain on UCSC campus and move directly into their school year dormitories from their summer housing.

Summer Academy: First Year was collaboratively designed by the Faculty Assistant to the CP/EVC for Student Success, the Vice Provost of Undergraduate Education, the Associate Vice Chancellor of Enrollment Management, the Assistant Vice Provost for Undergraduate Advising, the Director of Summer Session, the Faculty Director for *Summer Academy: First Year,* and members of the Student Success Steering Committee. Course instructors designed their courses to fit the seven-week format. For writing, a new course with a focus on STEM was designed. In summer 2015, students were slated to take three courses: (1) A 5-unit math course (Math 2 or Math 3); (2) A 2-unit Genre Study: STEM course; and (3) A 2-unit Navigating the Research University course. As is discussed in the academic courses section of this report, this was modified slightly once students' math placement test results placed some of them out of Math 2 and Math 3.

The program was intended to serve up to 65-70 students in this first year, with an expectation of expansion in future years. However, in this first year it enrolled a total of 21 students, 19 of whom completed the program.

About this Study

This report examines the implementation of the *Summer Academy: First Year* pilot in summer 2015. The original research plan called for a randomized controlled experiment in which a lottery would be used to select students for a program group and those for a control group, all of whom had met the criteria for enrollment. The recruitment process did not generate enough students for an experiment. Instead, we have conducted a qualitative implementation study to understand how the program operated in this first year, the successes and challenges experienced in the implementation process, and recommendations offered by study respondents for future improvements.

The data collection included interviews conducted with:

- Administration: Summer Session Director, Vice Provost for Undergraduate Education, Faculty Director of *Summer Academy: First Year*, Faculty Assistant to the CP/EVC for Student Success, Associate Director of Financial Aid;
- Instructors: Four instructors teaching courses in the Academy;
- Peer Mentors: All three peer mentors working with students; and
- Students: a focus group with about three-quarters of the students who participated in the program.

We synthesized themes and recommendations within and across role groups to identify the findings summarized in this report.

Recruitment, Enrollment, and Financial Aid

Recruitment and Enrollment

Student recruitment for *Summer Academy: First Year* began in May 2015, after students indicated their Statement of Intent to Register (SIR) at UCSC. Invitations to participate in the program were sent on behalf of the Faculty Director, John Tamkun, Professor of Molecular, Cell, and Developmental Biology. To qualify, students had to have listed an intended STEM major in the first of two slots on their UCSC application. Recruitment was limited to students who were not being recruited for two other summer programs, the Educational Opportunity Programs (EOP) Bridge Program and the Engineering Summer Bridge.

Invited students who wished to participate were asked to complete three steps in order to enroll:

1. Fill out a brief application, which was not for screening, but rather to show their interest;
2. Complete the 2014-15 Free Application for Federal Student Aid (FAFSA); and
3. Take the math placement exam online through the newly implemented Assessment and Learning in Knowledge Spaces (ALEKS) system

Although the invitations went to reportedly thousands of incoming students, very few responded with an interest in the program. After much one-on-one outreach by Summer Session staff to individual students, a total of 30 students indicated their intention to enroll in the program, but eventually 21 completed the three necessary steps, and 19 completed the program. Two students started, but left after a short period of time, although one of these students plans to enroll for fall semester at UCSC.

As shown in the table below, students came from a variety of backgrounds. There were more males than females (53% and 47% respectively) and the predominant race/ethnicity among students was Latino (58%). About two-thirds were first generation college students (68%) and about half were low-income (52%). Half the students came from southern California counties (52%), slightly less than half were from other regions of California, and one student was from out of state. Students averaged a high school grade point average of 3.84. Students differed somewhat from entering first year students in the

prior academic year, with much higher percentages of Latino and first generation students, and fewer Asian students. Students from southern California were overrepresented in the Summer Academy relative to those entering in fall 2014. Summer Academy students also had a higher average high school GPA than the entering class of 2014.

***Summer Academy: First Year* Student Characteristics**

	Summer Academy Students	All UCSC Entering Frosh, 2014
Gender		
Male	53%	46%
Female	47%	54%
Race/Ethnicity		
Hispanic/Latino	58%	31%
White/Caucasian	26%	30%
Asian	11%	22%
African-American/Black	5%	2%
Other	0%	16%
First Generation[a]	68%	45%
Low Income[a]	52%	46%
Geographic Home[b]		
Southern California	53%	40%
Other California Locations	42%	55%
Out of State	5%	5%
Average High School GPA	3.84	3.68

Note: Data for UCSC entering frosh come from student enrollment and retention statistics on the IRAPS website.
[a]UCSC entering frosh data are from 2013.
[b]UCSC entering frosh data include only domestic students.

Overall, it appears that UCSC enrolled the types of students it was hoping to enroll for *Summer Academy: First Year,* but fell short quite a bit in the number of students who enrolled. Several explanations were offered by different respondent groups for the lower-than-expected enrollment. First, respondents offered a number of suggestions for enhanced communications, both in terms of the timing and the content of messaging. On timing, the suggestion was to start communicating with potential enrollees much earlier than when they opted to SIR at UCSC, even emphasizing this opportunity during UCSC recruitment and admissions visits. Some suggested that this should be a year-round activity including dedicated staff, with planning, recruiting, enrolling, and certifying for financial aid taking place throughout the year. In this pilot year, the program was still being designed during this time period, but an earlier start would be possible in future years.

In terms of the content of the messaging, some respondents felt that the messaging should come directly from Summer Session because that is the office with which students will continue to communicate about enrollment. Also, respondents felt that more information about the program itself should be provided to potential enrollees. For instance, students reported that they wished more had been explained about the courses they would be offered and the format of the program as well as its cost. Some were unsure if the program was more like a summer camp, where they would be expected to stay together on campus for the entire seven weeks, or if it was more like a real college experience where they had independence. They were unsure if they had choices in the courses they took or if they would be assigned; generally speaking students liked the idea of having some choice.

In addition to communication, respondents reported that changes to the targeted recruitment group could yield more student enrollees. For instance, several administrator respondents felt that excluding students who were recruited for other summer programs unnecessarily limited the pool of potential applicants, particularly because a large portion of the students recruited for these programs are not admitted and thus lose the opportunity to attend *Summer Academy: First Year* as well as the other summer program. In addition, they suggested that students who list a STEM field in either of the two slots on their application be offered this opportunity.

Two of the 19 students enrolled in the program had their fall enrollment canceled at the start of or during the session. Ultimately both students resolved the problem and were able to stay, but this caused stress not only for the affected students, but also on the rest of the cohort, who were experiencing the process through their peers.

Prior to program implementation, a number of UCSC administrators and faculty expressed concern that the cost of the program would limit student enrollment. We did not speak with students who opted to not enroll, so do not have direct evidence on this issue. However, in its outreach to potential students, Summer Session staff indicated that many students cited not wanting to miss out on their last summer at home as a key reason for not wanting to enroll. Students and peer mentors echoed this sentiment, stating that going to school in this last summer was a disadvantage of the program. Several also mentioned the financial constraints as disadvantages as well.

Financial Aid

Summer Academy: First Year students were offered discounted housing, but paid the full amount for tuition and meals, a cost of $5,699 for seven weeks.[1] About 90% of students received financial aid and the Financial Aid Office worked closely with them during the enrollment process to ensure their FAFSA forms were processed in time for on-time financial aid.

Two key challenges were noted by respondents with the financial aid process. First, the summer is an extension of the prior academic year, which meant that students needed to complete the 2014-15 FAFSA for their Summer Session financial aid. This is positive because students do not need to use their academic year funds to support summer learning. However, many students misunderstood this, despite

[1] Total cost breakdown was as follows: tuition and fees $2,634, room and board $2,042, books $288, personal expenses $441, and transportation $294.

multiple communications, and were delayed in submitting their forms, requiring one-on-one follow up by financial aid staff. Starting the process earlier, again with possibly a full-year position dedicated to the summer program, and enhancing communications with materials that clearly outline the steps needed were suggested by staff as important ways to improve the process. In addition, automating the enrollment system so that students click online to the three steps from one portal, a system change recommended by respondents, might reduce the miscommunication.

A second challenge was reported with regard to one of the two students who were canceled. Even after the student had admission reinstated, there were ongoing complications with financial aid receipt until a systems correction was implemented to reinstate the student's status as an enrolled student.

Courses Taken and Grades Earned

Math

Initially, the plan was for students to enroll in Math 2 or Math 3, both of which would be offered in the seven-week format. If students placed out of these courses, they would enroll in a calculus course during the regular Summer Session. However, many more students than expected were assessed by the new online math assessment as placing out of Math 2 and Math 3. The course offerings for Summer Academy were therefore changed.[2] Seven students placed into Math 2 and were provided a seven-week course with only Summer Academy students enrolled. Those who placed into Math 3 (five students) enrolled in the regular Summer Session with other UCSC students. There was not a calculus class offered in the second Summer Session, so the students who placed out of Math 3 mostly enrolled in Introduction to Biological Anthropology (Anth 1) (six students), although one also enrolled in a Statistics course and one took four classes, also enrolling in a Music course.

According to multiple respondent groups, students who took Math 2 in the seven-week format derived a great deal from the small class size and supports, making it a very positive experience. In addition to the instructor, the course was supported by Learning Support Services and also a grader. In the much smaller than usual course, students had an opportunity to interact closely with the instructor and to benefit from individualized attention that she would not normally be able to offer in her much larger classes. Students felt they learned the material well, and their grades reflect this. The course average was an A-, which is, according to the instructor, higher than students normally perform in the course. Four students earned an A, two earned a B+, and one earned a B.

We learned less about students' experiences with their regular Summer Session courses, except that because they were five-week courses, their mid-terms and finals did not coincide with their other classes. Peer mentors felt this was a good opportunity for them to learn to manage the different

[2] Respondents offered two views of why more students than expected placed higher in math with the new assessment system. One explanation was that ALEKS provides instruction as well as assessment and so students might have learned enough in the online instruction to learn or be refreshed on the material and subsequently place higher. The other was that the test was artificially placing students at higher levels of math for which they might not be ready.

deadlines and expectations of courses, which is what happens during the school year. Students said the five-week classes, and also the seven-week classes, went fast, but that they were able to stay on top of the work.

Summer Academy: First Year students in Math 3 had an average course grade of A-, with one student scoring below that mean. Academy students in Anth 1 had an average course grade of B, with two students scoring below that mean.

Genre Study: STEM

Similar to math, students must satisfy the Entry Level Writing Requirement (ELWR) in order to advance past introductory courses in writing. However, at the time that students enrolled in *Summer Academy: First Year*, the campus did not know their ELWR status. It was decided that a special course would be offered to all students regardless of their ELWR status, and it would be designed to be applicable to students at all levels of preparedness. This course, which was approved by the Committee on Educational Policy (CEP), was intended to introduce students to the variety of genres writers use to communicate information in science, engineering, technology, and math (STEM). Through collaborative projects and individual reflections, students would learn the process required to identify how STEM communication adapts and changes based on genre. Two sections of this new writing course were offered during the seven-week session, with two instructors teaching 9 or 10 students using the same approach and syllabus. Classes combined for some exercises and separated for others. The average course grade in one section was a B+/A- and in the other was a B+. Across both sections, four students earned an A, five earned an A-, three earned a B+, six earned a B and one earned a B-.

As a two-unit course focused specifically on STEM writing genres, this course was not equivalent in content or expectations to the Core course that first year students are required to take and was different from what students were used to in their high school classes. Perhaps as a result, both peer mentors and students reported that this class was not what they expected in terms of content and extent of writing. The bulk of writing that students did for the course was prompt-based reflections on different genres of science writing. Students reported they would have liked experience with different types of writing as well, such as how to write a lab report, a sentiment echoed by one administrator. This desire is somewhat at odds with the goals and purpose of the course, and may reflect students' discomfort with the unfamiliar material emphasized in the course. Students felt supported by their writing instructors and liked them personally.

Navigating the Research University

This course was a modified version of an existing course to fit the seven-week format and the focus on STEM. The instructor supplemented the course curriculum with meetings with a professor from Biology, Chemistry, and Engineering. Students went to the offices of these professors, saw their buildings, and then had group meetings with the faculty. The faculty were hand-selected because they are senior faculty members who teach some of the introductory courses that students will likely be taking in their first year. Students unanimously reported that this opportunity was among the highlights of their summer experience and all peer mentors told us that students were very excited about these meetings. Students also felt that this course helped them to understand the resources available to them on

campus and reported this would help them tremendously in the fall. There was a student panel of existing STEM undergraduates that both the students and the instructor told us fell flat because the students on the panel were exceptional (e.g., at least one planning to graduate in three years) and Summer Academy students felt it was unrealistic that they would succeed at that level. The instructor would change the format of this panel if the course is offered again next summer. The course average was a B+/A-. Four students earned an A, four earned an A-, nine earned a B+, and two earned a B.

Academic Oversight and Coordination

The *Summer Academy: First Year* Faculty Director oversaw the content of the program and approved new course curricula. However, as a new program, there was not a clearly outlined role for the Faculty Director. The Director met with instructors prior to the start of the session and was available to them by email over the seven weeks. He also offered to meet individually with all participating students and assisted in arranging the discussions with STEM faculty.

Instructors in the Academy did not have an opportunity to meet together, either alone or with students, during the session. Because of this, some instructors were concerned about students' total workload and whether their assignments and due dates synced well together. They felt that it would be useful if they could meet each other in advance, meet at least once during the session to check in about their courses and expectations, and even meet in an informal setting with students (e.g., over an evening meal) to interact with students outside the classroom. In general they felt that more coordination amongst themselves would enhance the program experience for students and faculty in the future.

Residential Life and Co-Curricular Activities

Summer Academy: First Year students lived together on one floor of Merrill College with their peer mentors. There was a lounge on the floor where students spent time together and played video games, which was reportedly an activity through which students bonded. Students and peer mentors mentioned how important it was that they lived together and that it enabled them to get close as a group. They all valued this experience and reported it would be helpful to them in the fall to already have a set of friends and supports. A peer mentor told us that they have a group text set up and they use it regularly to get in touch with everyone, and she hoped it would continue once the academic year began. Students were very enthusiastic about the peer mentors. Peer mentors reported wanting to be more of a helpful friend to the students than a counselor and they were very committed to "being there" for the students when they needed help. Some offered, and were more prepared to offer, assistance to students than others in their coursework, but they all offered help with study tips and campus resources, such as how to get around and where to do laundry.

The three peer mentors spent spring quarter 2015 planning the summer's activities. The co-curricular activities included a combination of introducing students to what the Santa Cruz area has to offer and showing them around the Bay Area. Locally, students went to the beach, the Boardwalk, downtown, and the Capitola mall using public transportation. They had outings to Berkeley, San Jose, and San Francisco that included a STEM component and then time to see the area. In Berkeley, students had a tour of Lawrence Berkeley National Laboratory and learned about potential internships they could apply

for in the future. This was by far their favorite outing. In San Francisco they went to the Exploratorium and in San Jose they went to the Tech Museum. Students were not nearly as excited about these venues because they were targeted to younger age groups, whereas the lab tour was intended for college students. Still, when going to San Jose students took the Highway 17 bus, which was valuable for showing them how to get to the San Jose Airport using public transportation.

Students reported sometimes feeling stressed while on their weekend trips if their coursework was not completed or they had a big assignment due. In fact, their last outing to Monterey was canceled so that students could spend time studying. The recommendation was to shorten these outings and to focus them on experiences that would directly relate to their college experience.

Some students wondered why lab tours on UCSC campus were not part of their summer experience. Although UCSC does not have a lab as large as the Berkeley lab, perhaps there would be some value to having students meet with graduate students or undergraduates who are working in labs over the summer to learn about the kinds of work they are doing and see this work in action.

There were a number of challenges that arose this summer with regard to student housing and access to other facilities. Some students were due to move into Merrill directly from their orientation housing. However, the bulk of this move happened on a Sunday and the bus system was not operating on campus and there were no other means of transportation available, so students had to walk across campus with all their belongings for the seven weeks. There were other missed communications between orientation and Summer Academy, as some students began their summer courses (those enrolled in Anth 1) while their orientation was still going on. This was confusing for students and although Summer Session staff were aware of the conflict, the peer mentors and orientation leaders were apparently unprepared to help students navigate this conflict. All peer mentors recommended enhanced communication between Summer Session staff, orientation staff, and themselves to smooth these issues.

Other challenges had to do with the seven-week format during a five-week session. Students experienced a number of problems, from closed computer labs to not working meal cards and a host of other issues related to the fact that campus does not usually host students while classes are out of session. Students did not mention these problems, but Summer Session staff was very aware of the issues and felt that their outreach and communication in advance of the problems (to let campus know that these students were here) did not have its intended effect. In some cases this was not simply a communications issue, as computer labs and other buildings on campus close for the time between summer and fall sessions for maintenance operations that are not possible when students are on campus.

Aligning Course Enrollment to Second Summer Session

We asked respondents how they thought the seven-week course format worked and if the program could work in a five-week session that aligns with the regular Summer Session. Administrators and instructors felt the coursework could work in a five-week format to coincide with the regular Summer

Session. All instructors felt their courses could be tailored to five weeks, if needed. One suggestion is to have students enrolled in their courses during the second five-week Summer Session, but have the *Summer Academy: First Year* program remain a six to seven-week program, with students completing their orientation and other co-curricular activities in the weeks prior to the start of Summer Session. There are advantages and disadvantages to this approach. Advantages of this approach include:

- An opportunity to enroll in other courses offered in Summer Session without conflicts between the seven- and five-week course requirements. Some students expressed interest in having more choice in their course selections and some administrators felt this could be accomplished more easily with a five-week session, perhaps adding other STEM pathway courses.
- Students could still experience the cohort bonding through one course where they all come together without other students and in the weeks prior to Summer Session and in their residential living environment.
- Aligning with Summer Session would eliminate some of the facilities problems students experienced, and would ease the burden of Summer Session staff trying to triage these issues when they occur. If the program begins prior to the second Summer Session, students will be on campus for orientation and first Summer Session and facilities to serve them will be available.
- Students expressed that a key disadvantage with Summer Academy was giving up part of their last summer at home. A shorter program would allow for more time enjoying summer and potentially increase enrollment as well as decrease costs associated with housing and meals.

Disadvantages of this approach include:

- The pace of instruction felt very fast to students in the seven-week format and five weeks is that much shorter. The pace may make the coursework too difficult for the students.
- Some administrators felt that if it were a five-week session, students would not be able to take the full nine units and would need to take two instead of three courses.
- The timing would not align to students' move-in date for their fall housing. This could prohibit some students, particularly those who cannot go home in between sessions, from attending. However, in 2015 none of the 19 students remained on campus in the weeks between the end of their program and the start of fall quarter – even those from out of town or out of state went home or went home with a friend.

Conclusion

Overall, the pilot year of the *Summer Academy: First Year* was reported to be a success. Although fewer than expected students enrolled, the types of students who enrolled matched the target group envisioned for the program. Students all completed nine credits in three courses. The non-academic part of the experience worked well, with students and peer mentors reporting that the residential setup and co-curricular experiences helped students to bond as a group and become comfortable with the UCSC campus and community.

All respondents interviewed for this study felt that *Summer Academy: First Year* should expand so that it can continue in future years. As documented in the Executive Summary and throughout this report, there were many suggestions for how to improve the program, including the recruitment and enrollment processes, the courses offered, the co-curriculars, and even the seven-week format. These suggestions offer a starting point for decision-makers in their deliberations about the Academy in future years.