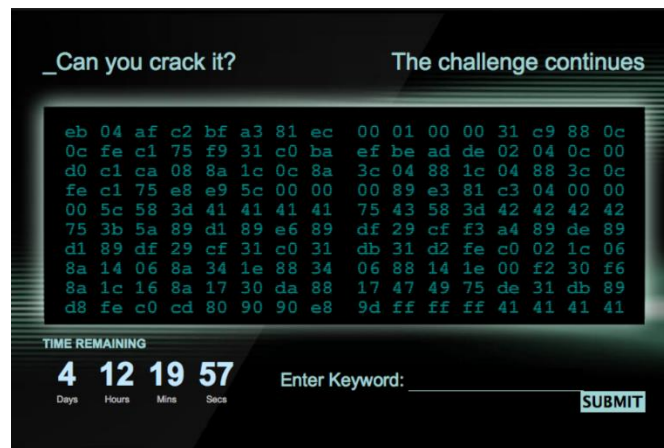# "The code breakers"

Business Plan

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Executive Summary

"Breaking the Technological Ceiling" program is a two-year pilot project specifically aimed to increase the number of women and underrepresented students who enroll and complete educational programs in computer science and computer technology disciplines.

The pilot will focus on recruiting middle school and high school students to participate in an education and mentoring program that will provide both an introduction to computer science and computer technology related fields of study as well as expose them to regional occupational forecasts with current wage data. All participants will have an opportunity to gain practical information of the required skills needed for employment or educational advancement of the representative programs offered at the host or partnering institutions through the utilization of contextualized instruction and practical hands-on experiences in differing STEAM areas featuring a computer science or programming core. The areas to be included in this introduction are: computer programming, computer coding, cybersecurity, computer application development and computer networking. As mentioned, the specific goal of this pilot project is to increase the number of women and underrepresented students that enter and complete computer science and computer technology related certificate and degree programs that align with national and regional work force needs.

Secondary project goals are to increase the number of women and underrepresented students who gain eligibility to transfer to a baccalaureate degree program in computer science, computer engineering or a more advanced applied technological field, and development of an on-campus, industry-specific support program and/or student organizations that will provide avenues for institutionalization of our outreach efforts and ongoing contextualized support for the specified target populations that are identified within the project proposal.

Specific goals for the pilot include recruiting eighty (80) total students from the local elementary and high school districts to participate in summer workshops and bridge program(s) that lead to their enrollment in either College of the Canyons or another college or university with a major in a STEAM-related area that involves computer science or computer technology.

During year one, 40 eligible students (20 high school and 20 junior high school students) who meet the defined criteria will be selected to participate in summer workshops, where they will participate in activities at College of the Canyons, designed to increase their knowledge, familiarity and practical understanding of the requirements needed to complete one or more Computer Science or Computer Technology STEAM programs of study.

The activities of year one will be repeated during year two, and students who complete the year one pilot will be invited to return the following summer to participate in advanced workshops and lectures, focused on application of acquired skills and career and educational advancement.

Exogenous sources of funding will be pursued to help defray program overhead and to support scholarships for student participation in the program activities.

General Company Description

"Breaking the Technological Ceiling" is a two-year pilot program specifically designed to increase the number of women and underrepresented students who enroll and complete educational programs in computer science and computer technology disciplines. Specific areas will include computer programming, computer coding, cybersecurity, computer application development and computer networking. This company will focus on the first phase of the project which will encompass working with faculty to develop a student support organization that promotes and fosters increased and awareness of careers and occupations in computer science and computer technology fields and develop a two-week introductory workshop offering that can be added to College of the Canyons Summer Institute. The goal is to have all deliverables ready for implementation for the Summer Institute scheduled to take place in mid-July 2017. The proposed workshops will cover 10 days of combined classroom and hands-on computer lab instruction, over a two week period.

The company will focus on recruiting junior high and high school students between the ages of 12 and 18, from the Williams S. Hart Union High School District. The goal of the program is for participants to gain practical knowledge of the skills needed for employment or educational advancement in the fields noted above. At the end of the two-week Summer Institute participants will be able to demonstrate what they have learned.

Marketing Plan

The below items specify how we plan to obtain enough enrollees to cover our costs. We anticipate on reaching out to key individuals at the Hart District, as well as working with PIO office to help develop marketing materials etc. We do not anticipate on having any paid advertisements, rather, the support we will receive from inside our institution as well as surrounding districts will allow us to advertise at a minimal costs.

Marketing Strategy: Work with existing COC resources (Summer Institute, Community Education, Public Information Office).

Target Market: SCV Students ranging in age from 12 to 18. (Twenty 12—16 year olds & Twenty 17—18 year olds).

Unique Selling Proposition: Only class of its type in area.

Pricing Strategy: The estimated price will be $325 to cover costs.

Promotional Plan: Course will be marketed as part of COC Community Educations' Summer Institute; directly to Hart District teachers via existing educational alliances; to COC Girls Who Code Chapter.

Action List:
▪Establish Girls Who Code Chapter at COC.
▪Coordinate with Summer Institute/Community Education
▪Coordinate with educational alliance partnerships between elementary school districts and Hart District
▪Meet with PIO for marketing materials
▪Write copy for webpage and flyer
▪Develop a website
▪Market to local elementary schools, junior highs, and high schools
    ▪Target female and underrepresented students
    ▪Coordinate with Outreach
▪Contact Communications to let them know when and where program will be running in case a participant calls looking for it

Operational Plan

The below information specifies the two phases we plan to execute. The immediate goal is to establish a "Girls Who Code Chapter". The Second phase will focus on the underrepresented student population between the ages of 12-18.

Phase One:

- Start "Girls Who Code Chapter" in Fall 2016
    - Ages 16+
    - Open to all COC students
    - Current COC students will run this club

Phase Two:

- Start coding program in Summer 2017 in conjunction with Summer Institute
    - Length of program - 10 days over 2 weeks
- Choose dates to run program – Summer 2017
- Reserve rooms
    - 8 days in computer lab for hands on activities
    - 2 days in classroom
- Develop budget
- Coordinate with Summer Institute/Community Education
- Coordinate with educational alliance partnerships between elementary school districts and Hart District
- Get speakers, COC faculty, CSUN students/faculty
- Develop curriculum that meets objectives of program
- Meet with PIO for marketing materials
- Print materials and get necessary supplies by Winter 2016
- Market to local elementary schools, junior highs, and high schools
    - Target female and underrepresented students
    - Coordinate with Outreach
- Meet with contracts/business services about liability and to ensure we are following college policy
- Develop a website
- Develop a way for students to register
- Contact Communications to let them know when and where program will be running in case a participant calls looking for it

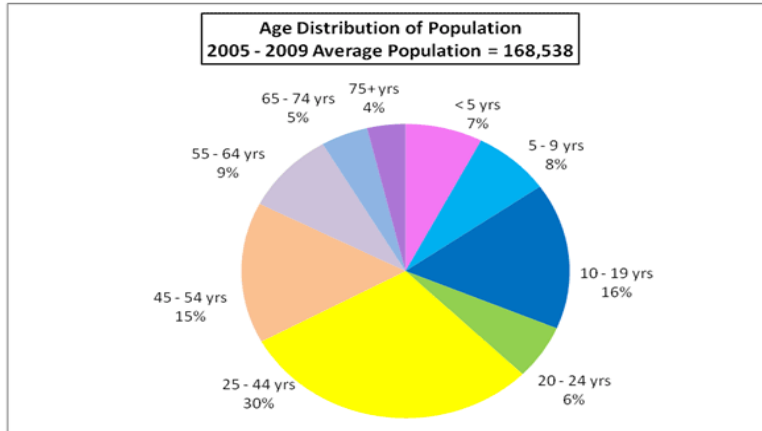- Determine responsibilities/key people for running the program

Market Analysis

Target Market:

Our core target market as stated above are young women and Minority students between the ages of 12 through 16 who are from the Williams S. Hart Union High School District.
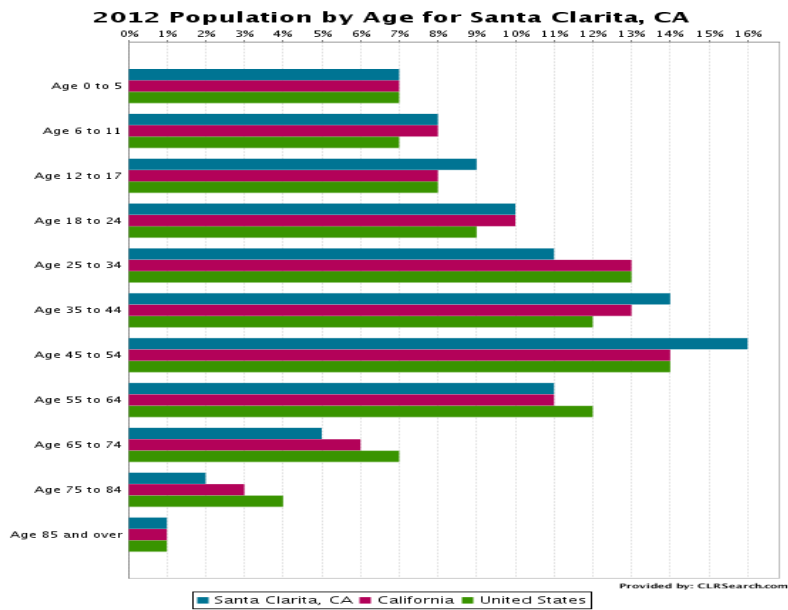
Demographics:

The population in the Santa Clarita valley is expected to grow to almost 300,000 and according to Nielson Company and that number is expected to grow by 3.7% over the next five years. 62.5% of the population is white, while the remaining population is a mix of Hispanic, African American, Asian and Native American. The graph below shows a breakdown of age group within the city of Santa Clarita with an estimated population of 168,538. Our target market of Women and Minority students between the ages of 12-16 are roughly 9% of the population. 2% greater than the County of Los Angeles and the State of California.

The graphs on the following page specifies to breakdown of population by age. In addition, the City of Santa Clarita has the largest population within the target market we intend to serve at 9% of the total population.

Age Distribution of Population
2005 - 2009 Average Population = 168,538

Source: U.S. Bureau of the Census, 2005-2009 American Community Survey

2012 Population by Age for Santa Clarita, CA

Provided by: CLRSearch.com

Santa Clarita, CA   California   United States

Labor Market Projections

Occupational Title	Projected New Jobs 2014-2024 (National)	Annual Median Income
Network and Comuter System Administrator	30,200	$77,810.00
Web Developer	39,500	$64,970.00
Computer System Analysts	118,000	$85,800.00
Computer Support Specialist	88,800	$51,470.00
Information Security Analysts	14,800	$90,120.00
Software Developer	186,000	$100,690.00
Database Administrator	13,400	$81,710.00
Computer System Analysts	118,000	$85,800.00
Multimedia Artist and Animators	3,900	$63,970.00

Management and Organization

The proposed inititiative will be managed through collaborative the efforts of the faculty and admnistrators from the School of Mathematics Sciences and Health Professions. Administration will provide assistance and collaborate with faculty to promote the initiative and to seek out funding to support the initiative. The two year pilot project will be institutionalized in the following ways: establishment of a student support organization(s) that will provide additional contextualized support for the target populations, and by etablishing the planed summer workshops as an ongoing part o fthe Summer Initiative through Collaboration with Dean of Canyons Extension. The administration-faculty partnership will oversee the day to day operations of the proposed inititiative and provide technical support and guidance to help achieve long-term success.

Organizational Structure

Chancellor

CIO

School of Mathematics Sciences and Health Professions (Deans)

Faculty

Student Support Organization/Club

Financial Projections

The following numbers represent the projected costs to deliver an introductory summer workshops for computer coding and programming to 40 students. The greatest expenditure would be for the instructional costs. We anticipate providing flash drives to each participant as well. In addition, operational expenses related to course delivery will cost 20% of the total project cost. Due to the non-profit status, we do not intend to make a profit, thus offsetting all revenues with expenses.

The following are the estimates of instructional costs for program for 40 students to participate

Instructional Costs	Hourly Rate	Hours	Salary	Benefits 10%
Instructor 1	$37.00	80	$2,960.00	$296.00
Instructor 2	$37.00	80	$2,960.00	$296.00
College Assistant 1	$15.00	80	$1,200.00	$120.00
College Assistant 2	$15.00	80	$1,200.00	$120.00
Curriculum Development	$35.00	20	$700.00	$70.00
Total				$9922.00

Material and Supply Cost estimates for 40 students

Materials (Taxable)	Price per unit	#Units	Sales Tax	Total
Flash Drives	$10.00	40	$40.00	$440.00

Facility Cost and Other expenses related to course delivery (20% of total from above)

Operational Expenses				$2072.00
Insurance				$0.00
Total				

Total Expenses: **$13,064.00**

    Cost Per Student: **$325.00**