Hartnell College - Office of Institutional Advancement
Grant Concept Form

November 2020

1. New/Renewal Grant Project - What do you want to do?

Title: Collaborative teaching in majority Hispanic High Schools–Teaching AP Bio through the IoT

Website: https://beta.nsf.gov/funding/opportunities/racial-equity-stem-education-ehr-racial-equity

Abstract: Fill in Abstract below:

A collaborative project between UCSC's Computational Media group and Genomics Institute, Alisal HS, and Hartnell College's CSS dept. and STEM Division on improving access to bioinformatics education and experiences through the development of a collaborative model for improving education equity in STEM fields. Outcomes of this project that benefit Hartnell College are: 1)improved student success and retention through hands-on internship-based model of learning 2)experiences and collaborations with a local 4-year institution to increase transfers 3) recruitment of high school students into CS and biology fields through this partnership and student projects. It will also build STEM capacity at Hartnell and create diverse STEM workforce.

2. Alignment with the College Strategic Plan and Feasibility

[Link to Hartnell College Strategic Plan](#)

15 ____ % **Goal 1 -** Increase Student Completion

15 ____ % **Goal 2 -** Increase Student Completion Efficiency

50 ____ % **Goal 3 -** Increase Student Transfer to 4 Year Institute

20 ____ % **Goal 4 -** Improve Student Employment Subsequent to Training or Completion

100 _____% **Total (should equal 100)**

Please provide a list of the Hartnell values that this grant fulfills: [Hartnell College's Values](#)

Student First; Academic and Service Excellent; Diversity Equity and Inclusion; Ethics and Integrity; Alliances; Leadership and Empowerment; Innovation; Stewardship of Resources; Health, Safety, and Security.

Be prepared to provide data to support scoring below such as Labor Market Data.
* Scoring Criteria (1-5 WEAK to STRONG)

1) Staff expertise/experience in similar projects	4
2) Compelling need in college or community	5
3) Strong business/community/education partnerships	5
4) Aligns with new funding formula	5
5) Low demand on resources (space, equipment, etc.)	5
6) Capable of sustaining project after grant ends	3

Total: __2_____ **(Total should not exceed 30)**

List Accreditation Standards (i.e.; II.A.): [Link to Accreditation Standards](#)

IIA

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3. If the project is for broad institutional capacity building, what are the plans for institution-wide development & implementation of proposed activities?

N/A

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4. Does the project align with or overlap with current activities or events? If yes, please provide information about activities and how current directors and program staff are involved in developing this new project/grant proposal.

There may be some overlap with the STEM internship program's activities and K-12 STEM programs. The K-12 STEM programs was invited to a collaborators meeting. The lead for this project has also been in contact with the STEM Dean to plan for working with other directors and program staff to make this work.

Activities that are related are:
* Hartnell student participants will be asked to participate in the STEM internship symposium and will be paid for participation as an entry level student researcher/student mentor in stipend form. Since the Hartnell internship program does these things already, we have allocated some funds for 1) student stipends 2) student poster/presentation supplies 3) Part of the STEM internship director's salary + benefits

* Coordination with local high schools and our student researchers/ student mentors to assist with computational solutions to biology experiments. Funds have been allocated for paying for background checks if they are needed. UCSC may have leadership training module that can be applied. However, there are some funds that may be applied to deliver such training as well, possibly through the K-12 STEM program.

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5. Grant Type		Due Date
x New		02/04/2022
Continuation		02/04/2022
Funding Source		**Agency/Organization**
Public: State x Federal		National Science Foundation (NSF)
Private: Foundation Corporation Individual		

6. Fiscal Information - Fiscal Agent
x College   Foundation   Indirect Cost Rate: 30   Grant Amount: 1500000

7. Does the proposed project require matching funds or in-kind contributions?
x No   Yes   If yes, explain: NA

8. Intellectual Property
Will the proposed project include the development of intellectual property?
No   x Yes   If yes, explain: UCSC Faculty and researchers have developed an IoT remote microbiology lab setup and will improve on its design. This is part of their tasks for the grant.

9. Grant Timeline
Grant Start Date: 07/01/2022 _____   Grant Ending Date: 06/30/2027 _____

10. Proposal Lead
- Proposal Lead: - Title: - College Department: - Phone: - Email: Sonia Arteaga, PhD _____ Computer Science Instructor _____ CSS _____ 8317556741 sarteaga@hartnell.edu _____

11. Additional Partners
Will this project include other agencies?

No   x   Yes   If yes, explain: This project is in collaboration with Alisal district high schools and UCSC faculty and graduate students.

12a. Human Resources - Staffing Positions to Support the Grant
What new/continuing positions will be created to meet the proposed project objectives?
Please list the proposed titles and one-sentence job description below; include cost detail and a source of funding.

• 20% time/effort of Program Assistant to help with budget request (purchase orders, student internship stipend request, etc.)
• 10% time/effort of the Math & Science Institute Director and/or the K-12 STEM Programs Director to help with coordination with HS, student intern recruitment and training
• 2 CSS Faculty Special Projects to mentor and work with 3 – 5 student interns, each.
• Faculty PI Special Project to manage grant and work with collaborators
• Possibly a professional expert or Research Associate (Faculty via SPA) to track student interns and gather data on: time to degree completion, transfers, planned major or career data.

12b. Will the proposed project require HCCD to eventually absorb the cost of staffing for the project?

x No   Yes   If yes, explain below and complete 16a and 16b:

Once project is complete, we do not expect to continue to incur this cost.

13a. Facilities, Furniture and Equipment Resources to Support the Grant
Will new/remodeled space be needed? (e.g. offices, lab and activity space, etc.)?
If so, please confer with Facilities to review the underutilized space map and describe plans below.

Will furniture and equipment be needed (e.g. workstations for staff, computers, phones, chairs, etc.)?
If so, include the estimated cost and source of the funding below.

There may be the need for computers or tablets. Funding for equipment has been allocated in the budget, along with printing costs.

13b. Will proposed facilities, furniture and equipment needs continue after grant?

x No   Yes   If yes, explain below and complete 16a and 16b:

na

14a. Impact on Student Affairs and its resources?
What current resources will be used to implement this grant?
What new resources will be needed?

I can't think of any at the moment.

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14b. Impact on Institutional Resource and Information Technology resources?
What new institutional research will be needed? (e.g. evaluation, new data sets, new reports.)
What new informational technology will be needed? (e.g. new or additional software.)

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Institutional research: We would like to get data on student participants and answer questions
such as: Did they all transfer to a 4 year? How many went to UCSC? What were their intended majors
 or career paths? What was the time to degree completion? Led by the Research Associate, in
coordination with PI and lead institution.There is a proposed budgetary item for a professional
expert to assist with this or faculty Special Project.

Technology: We may need additional software installed or purchase of laptops (proposed budget has
funds available for this).
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14c. Will proposed institutional research and IT needs continue after grant?

x No   Yes   If yes, explain below and complete 16a and 16b:

na

15. Budget Plan – over the term of the grant

	Grant	HCCD Match	Match Other
Personnel Instructional	474473		
Personnel Non-Instructional	534044		
Operating	140713		
Equipment	6000		
Indirect	344770		
Total	1500000		

Budget Notes:
NA

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16a. If proposed activities will continue after grant funding ends, what are the plans for sustainability?
Indicate years and activities that will be included in Program Planning and Assessment (PPA) and Resource Requests.

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Activities will not continue after funding ends, but we hope the partnerships across institutions
 will continue.
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16b. Budget Plan – HCCD institutional commitment – after grant term ends

Fiscal Year:			
Personnel Instructional			
Personnel Non-Instructional			
Operating			
Other			
Total			

Budget Notes:
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None expected
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17. Academic Senate - New Programs, Curriculum and/or Faculty
Does the proposal include new programs, curriculum, or faculty?

x No   Yes   Proposed date to present to the Academic Senate: ___12/31/2021___

List faculty members involved in development:
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NA. Not presenting but document is requiring a date.
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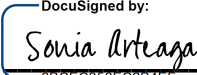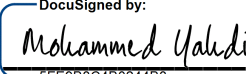
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18. The proposed project supports the goals and objectives of Hartnell College
The following signatures are the responsibility of the Proposal Lead:

Support	Do Not Support		
x		DocuSigned by: *Sonia Arteaga* ——6BCEC356EC2B4EF...	12/10/2021
		Proposal Lead	**Date**
Support	Do Not Support		
x		DocuSigned by: *Mohammed Yahdi* ——5FE9B8C4B0244B8...	12/10/2021
		Dean	**Date**
Support	Do Not Support		
		_____	
		VP	**Date**

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19. The proposed project supports the goals and objectives of Hartnell College
The following signatures are the responsibility of the Office of Institutional Advancement:

Support	Do Not Support		
		_____	
		Academic Senate	**Date**
Support	Do Not Support		
		_____	
		Vice President of Advancement and Development	**Date**
Support	Do Not Support		
		_____	
		Accounting Manager	**Date**
Support	Do Not Support		
		_____	
		Vice President of Administrative Services	**Date**
Support	Do Not Support		
		_____	
		Vice President of Information Technology	**Date**
Support	Do Not Support		
		_____	
		Vice President of Human Resources	**Date**
Support	Do Not Support		
		_____	
		Director/Vice President (as required)	**Date**

20 . Approval
The proposed project is approved and supports the goals and objectives of Hartnell College.

Support   **Do Not Support**

_____

Superintendent/President   **Date**