# **ADVANCE CTE EXCELLENCE IN ACTION AWARD**

**PROGRAM SUMMARY**

Advance CTE is pleased to announce a call for applications for the fifth annual Excellence in Action awards, through which we recognize and honor superior Career Technical Education (CTE) programs of study from across the nation.

**CRITERIA FOR JUDGING**

Selected programs will exemplify excellence in:

* Implementing Career Cluster®-based [programs of study](https://careertech.org/programs-study);
* Maintaining effective employer and business partnerships;
* Demonstrating alignment to rigorous and relevant college- and career-ready expectations;
* Demonstrating a clear progression of knowledge and skills and student transitions across secondary and postsecondary systems;
* Integrating successful career guidance and advisement;
* Integrating high-quality work-based learning experiences;
* Highlighting alignment to workforce and employer needs in the community; and
* Providing concrete data on the program of study’s impact on student achievement and success at both the secondary and postsecondary levels.

**ELIGIBILITY**

* This award is open to any secondary or postsecondary schools or colleges in the United States. Your school or institution may submit one application per [Career Cluster](http://careertech.org/career-clusters);
* The program of study must have at least one full graduating class;
* Your program must be eligible to receive funding from the Carl D. Perkins Career and Technical Education Act;
* Applications that do not include data to demonstrate positive impact on student achievement will not be eligible for consideration.
* If your program has received in an award in the past, you may not apply for that same Career Cluster. However, your school or institution may apply in a different Career Cluster.

**AWARD SUBMISSION REQUIREMENTS**

Complete applications will contain the following:

* A completed application including supplemental materials by the application deadline of **November 15, 2017 at 5 p.m. ET.**
* At least one letter of support from an employer or business partner supporting the program of study; and
* At least one additional letter of support from a partner (education, community or business) of your choosing.
* *Optional:* Supplemental materials including photos, videos, news articles, etc., are welcome but not required.

The application must be submitted using [this form](https://careertech.org/2018-excellence-action-application). The application must be submitted in a Microsoft Word format. Supplemental materials, including the letters of recommendation, must be combined and submitted as **one** PDF document.

*Please note:*

* Submissions should **not** include any personally identifiable student.
* The application does not have a page limit, however, many questions do have a word limit. Please do not submit responses that go beyond this limit. Also, submissions that do not contain all the required materials (a completed application, two letters of support and supplemental materials in the correct formats) will not be advanced for consideration.

**WINNERS WILL RECEIVE**

* A banner to hang in their school or institution;
* A digital banner to use in email and print materials as they so choose; and
* Travel and one hotel room for one night in Washington, DC for a representative to be recognized at an awards ceremony to be held the week of April 4-6, 2018.

**WINNERS WILL ALSO BE FEATURED IN**

* A national press release, which will be distributed to national media.
* A winner-specific press release to distribute to local media;
* A standalone one-pager;
* A standalone blog on the [Learning that Works blog](http://blog.careertech.org/);
* Representation on the Advance CTE [website](http://www.careertech.org).
* Many past winners have been featured in national conferences, in briefs and reports, on webinars and in the media.

**HOW TO APPLY**

* Fill out the following application.
* Once you have finished, complete [this form](https://careertech.org/2018-excellence-action-application) and upload the following:
* Your full application saved as a Word document (.docx)
* All of your supplemental documents or evidence consolidated as one PDF document.

# **BACKGROUND INFORMATION**

1. Program of study name: Project Lead The Way Biomedical Science
2. Point of Contact
 Name: Angela Anderson

Email Address: aanderson@rjuhsd.us

Phone Number: 916-768-7432
Address: 7801 Titan Drive Antelope Ca, 95843

1. Applicant’s School/College:
2. State: California
3. Type of institution (click the box to check)

 [ ]  Area technical center

[ ]  Career academy

 [x]  Comprehensive high school

 [ ]  Community college

 [ ]  Technical college

Other (please specify)

|  |
| --- |
|  |

1. Career Cluster in which your program of study should be considered (Follow this link for a further explanation of each Career Cluster [careertech.org/career-clusters](http://careertech.org/career-clusters)) **(Select only ONE):**

 [ ]  Agriculture, Food & Natural Resources Career Cluster

 [ ]  Architecture & Construction Career Cluster

 [ ]  Arts, A/V Technology & Communications Career Cluster

 [ ]  Business Management & Administration Career Cluster

 [ ]  Education & Training Career Cluster

 [ ]  Finance Career Cluster

 [ ]  Government & Public Administration Career Cluster

 [x]  Health Sciences Career Cluster

 [ ]  Hospitality & Tourism Career Cluster

 [ ]  Human Services Career Cluster

 [ ]  Information Technology Career Cluster

 [ ]  Law, Public Safety, Corrections & Security Career Cluster

 [ ]  Manufacturing Career Cluster

 [ ]  Marketing Career Cluster

 [ ]  Science, Technology, Engineering & Mathematics Career Cluster

 [ ]  Transportation, Distribution & Logistics Career Cluster

1. In three sentences or less, describe your program of study, including the secondary and postsecondary components and how long the program of study has been in place.

The biomedical program at Antelope High School has been in place for 10 years and includes the following courses:

* Principles of Biomedical Science
* Human Body Systems
* Medical Interventions- Articulation with Los Rios Community College District
* Biomedical Innovation
* Clinical Internship- Job Shadowing Partnerships with Dignity Health and Sutter Roseville Medical Center
1. Please check the geographical and demographic setting for your program of study and describe the geographic and economic conditions of the region served by the school.

 [ ]  Urban

 [x]  Suburban

 [ ]  Rural

 [ ]  Other

#

# **STUDENT POPULATION & DATA**

1. Please describe your program of study’s demographic and outcome data for the most recent academic year(s). It is our strong preference to have data from both secondary and postsecondary levels. If this is not available, please provide an explanation as to why the data from the other learner level is not available. Applications that do not include data to support positive impact on student achievement will not be eligible for consideration. (100 word limit)

The demographics in our pathway are as follows:

50% are title one students receiving free or reduced lunch

52% Caucasian

16% Hispanic

12% Black

20% other

About 90% of our student go on to 4 year colleges and major in a science, some join the military and other enter a trade school (EMT, Medical Assisting). Some of our alumni complete their undergrad and continue on to professional schools such as PhD programs, medical, and dental schools. The data as to the completion rate of students at their 4 year universities has been difficult to track therefore, the data we do have is on a case by case basis with students that have kept in touch through social media or email. Individual post-secondary success stories can be seen in the blog mentioned in # 29.

**NOTE**: Please specify if and when you are using a percentage with a different denominator (e.g., seniors) than the one listed.

**When completing the data section, please only use percentages and include data that is from your program of study, not the entire school/institution. Additionally, only include data where students are eligible to participate (e.g., only seniors in high school will be eligible for the section asking for percent of seniors who graduated high school, so only seniors should be included in that data; if your work-based learning only occurs within a specific grade level, only include them in your data for that category.)**

|  |  |  |  |
| --- | --- | --- | --- |
| SCHOOL YEAR | 2014-15 | 2015-16 | 2016-17 |
| **SECONDARY-LEVEL DATA** |
| **Total number of students served by your program of study**  |  |  |  |
| % male students  | 27% | 22% | 23% |
| % female students  | 73% | 78% | 77% |
| % minority students | 50% | 50% | 50% |
| % low-income students  | 36% | 36% | 36% |
| % students with disabilities  | 4% | 4% | 4% |
| % English language learners | <1% | <1% | <1% |
| Other relevant *demographic* data  |  |  |  |
| % of students who earned postsecondary credit (dual enrollment, AP, etc.)  | 79% | 80% | 84% |
| % of students who earned an industry-recognized credential  | 52% | 56% | 45% |
| % of students who participated in work-based learning | 52% | 56% | 45% |
| % of seniors who graduated high school (who were eligible/seniors)  | 100% | 100% | 100% |
| % of graduates who enrolled in postsecondary education (who were eligible/seniors)  | 95% | 97% | 99% |
| % of graduates who entered the workplace and/or military (who were eligible/seniors)  | 5% | 3% | 1% |
| **POSTSECONDARY-LEVEL DATA** |
| **Total number of students served by your program of study**  |  |  |  |
| % male students  | % | % | % |
| % female students  | % | % | % |
| % minority students | % | % | % |
| % low-income students  | % | % | % |
| % students with disabilities  | % | % | % |
| % English language learners | % | % | % |
| Other relevant *demographic* data  |  |  |  |
| % of students who completed postsecondary/earned a degree or certificate (who were eligible)  | % | % | % |
| % of students who earned an industry-recognized credential (who were eligible)  | % | % | % |
| % of graduates who entered the workplace and/or military (who were eligible)  | % | % | % |
| % of graduates who transitioned to further postsecondary education (who were eligible) |  |  |  |

1. Provide links to the source of the above data. If the links are not publicly accessible, please explain the source of the data.

The data is from reports distributed to our site by our administrators. It was also taken from teacher records and reports from our registrar.

1. How does your school or institution ensure equitable access and outcomes for students with diverse backgrounds? (150 word limit)
We work closely with a company called Culturally Responsive Sustaining and Humanizing (CRSH) through our EOS program and are working to achieve equity amongst minority groups while training our staff to be culturally aware of where our student may be coming from. We have worked to ensure equity and equal representation amongst all minority groups within specialized programs of study and AP courses and are proud to say that our minority groups are equitable represented within our AP courses at our site. We currently have more students enrolled in AP courses than any other school in our state and are one of the top schools for AP enrollment nationally. We also have one of the highest A-G rates in the state of California with nearly 77% of our students having A-G completion.
2. If applicable, what strategies or technologies do you use to close access gaps? (e.g. integrated digital learning, virtual work based learning.)

We have access to computers for every student within our classes. Students work on the computers daily and we incorporate integrated digital learning into the class on a daily basis. We have a project based learning approach to our instruction within our classes. We use digital work based learning in many of our labs and activities and have numerous wet labs which are completely hands-on. We also incorporate items such as embedded vocabulary within our curriculum and word walls. We use models, modeling

1. What activities does your school or institution do to recruit elementary, middle, high school students and/or adult learners into the program of study? Please provide examples. (150 word limit)

As a pathway we do a preview day at our middle school where we take high school students over to our feeder middle school and showcase our program of study. We go to all 8th grade science classes and our students introduce the pathway to the 8th grade students in a short presentation. We then do hands-on lab stations that the students get to rotate through to see what types of activities we do in our program.

We have a STEM summer camp in place called Titan Maker Day. We invite local elementary and middle schools to attend. Students in grades 5-8 participate in bone fracture puzzles and casting activities. They also rotate to other programs of study such as computer science and engineering. Each year we serve over 100 students at Titan Maker Day.

1. Is your program of study associated with a Career Technical Student Organization (CTSO)? If so, which one(s) and in what way(s)? (Check the [approved list](http://www.ctsos.org/ctsos/) of CTSOs) (50 word limit)

We do not participate with any of the CTSO’s listed however, we do have a biomedical club that runs multiple blood drives a year on campus and participates in volunteer activities with the American Cancer society. Students within the club participate in internships at local hospitals as well as in biotechnology competitions through local universities, STEM cell research, science fairs, orthopedics in action workshops, mentorship, scientific research and more!

1. Describe how career guidance/advisement is integrated into your program of study to support students’ completion of the program of study and entry into additional education/training and/or a successful career. Where applicable, describe the tools (individual career and academic plans, career exploration websites, etc.) that are provided to learners and how they are used. (200 word limit)

In our pathway students explore close to 100 biomedical related careers within the curriculum. We research Education needed, salary, daily responsibilities and skills needed for each profession. Also, we have a number of guest speakers related to these fields come speak in our classes. Additionally, we take field trips to places such as Blood Source laboratories, Shriners Hospital for Children, and Sutter Roseville Medical Center. Furthermore, our students are placed in internships at Mercy San Juan Medical Center, UC Davis STEM cell research center, Kaiser Permanente, and Sutter Roseville Medical Center.

# **COLLEGE- AND CAREER-READY STANDARDS/EXPECTATIONS**

1. Please describe how your program of study was developed and how it ensures students are academically and technically prepared for postsecondary education and careers. Please also address the following:
	1. How were employers involved in the development and/or maintenance of your program of study?

Project Lead The Way is a national curriculum that focuses on STEM education. Our site Principal, John Becker, selected to have this program implemented at our site and has been influential in cultivating the growth of the program. Multiple times a year we meet with our Career Technical Education Advisory Committee. This committee consists of industry partners and educators. We work to align the curriculum and skills we are teaching with the demands of the evolving economy. We also work closely with Sutter Roseville Medical Center and Mercy San Juan Medical Center where our students are conducting their internships in order to meet the demands of the current clinical environment. Our district also has a steering committee where industry partners review our program of study each year to make sure what we are doing in the classroom is relevant.

* 1. How does this program of study meet the economic needs of your community?

The Project Lead the Way Biomedical Pathway prepares students for a future in STEM education in a post-secondary setting as well as for the job force. In the Sacramento-Roseville-Arden-Arcade Metropolitan area several of the fastest growing occupations are health and biomedical professions. Over the past twelve months these career have shown growth in the community and are projected to continue to grow. According to the Employment Development Department for the State of California, 22% of the top 50 fastest growing occupations are health and biomedical related. These occupations are projected to show growth between 28-45% over the next 7 years. Students participating in the PLTW Biomedical Pathway are exposed to STEM education, skill building, and career exploration that will help prepare them to continue their education to move towards one of these careers and for some to enter in to the work force after high school in entry level health related positions.

* 1. How does this program prepare students for postsecondary education? (if applicable)

As a student moves through the PLTW Biomedical Science program they are not only learning content knowledge, but developing critical-thinking and professional skills that translate to academic and professional success. The PLTW model encourages students to become independent learners, critical thinkers, and informed citizens. At Antelope High School our PLTW Biomedical Science Students not only have the opportunities provided by the PLTW curriculum, but opportunities to thrive in the world of academia and industry as well. Each year as part of the pathway at Antelope students are able to participate in the Internship course where they spend a portion of their school day working at Sutter Roseville Medical Center and Dignity Health. Internship student have the opportunity to work in nine different departments over the course of their semester, getting exposure to careers in the Biomedical sciences and sparking their interest in continuing their STEM education. Additionally, our program works with the Biotechnology department at UC Davis, where students participate in the Teen Biotech Challenge website competition. During the summer we have some students participate in the UC Davis Summer Program to Accelerate Regenerative Medicine Knowledge or SPARK. Throughout the SPARK program, students assist in conducting stem cell research and present their work in a symposium. The opportunities available to Antelope students are great supplements to the curriculum they receive through PLTW, and contribute to a jump start on college.

* 1. How were both secondary and postsecondary educators involved in the development and/or maintenance of the program of study? (500 word limit)

Our program of study has a Career Technical Education Advisory Committee where we have secondary and post-secondary instructors participate in the maintenance of the program. We have a partnership with our local community college district, Los Rios Community College District. We partner with multiple schools within this district to provide post-secondary exposure and opportunities for our students. We partner with Folsom City College and Dr. Lagalla to tour their cadaver lab and work with their pre-medical student foundation. We also have an articulation agreement with American River College with their Biotechnology and Human Health course. Professor Ken Kubo has worked with us since the inception of the program to provide fieldtrip and workshop opportunities in biotechnology. Dr. Kubo also teaches advanced education course that our students have taken over the years our program has been around.

At the University of California Davis Dr. Denneal Jamison-McClung has worked with our students through multiple facets. She hosts annual fieldtrips for our students where she does guest lecturing and has graduate students speak about their research as well as lead our students on tours through graduate labs and around campus. She also heads the Teen Biotech Challenge, which is an annual event where students build websites on various biotechnology topics and are eligible for the SPARK research scholar program. The SPARK research scholar program is where our high school students work with professors and graduate students to conduct stem cell research. Each year our student present their research in a professional symposium at a designated location within the state of California.

Additionally, Professor Moyrti Rowchodhury worked with our students in 2016 to conduct research on the effects of fungicides on strawberry growth. Students did a semester of research and presented their research through an oral presentation and poster symposium at a local Science fair in Sacramento where they won 2nd place.

Each of these professors has helped shape our biomedical program of study since the inception of our program or has offered support over the years. Some have served on our advisory committee and some have helped create effective and intentional experiences for students in our program of study. All have been instrumental in the growth of the program.

1. Which technical, academic and/or employability skill standards does your program of study incorporate at the secondary and/or postsecondary level and how? (Please list the standards you use and be specific regarding how your program uses industry, national, state and/or locally-developed standards) (250 word limit)

Our program uses national and state academic and career cluster standards. The specific descriptions of how we use each standard is addressed in the attached documents as there is not enough room to list each standard in the space provided. To summarize, we align with National Health Science Standards, NGSS, English Language Arts and Mathematics standards. We also align with standards from the Health Science Career Cluster and the Biotechnology Research and Development Pathway. All of these standards are addressed in the first 4 courses of our biomedical pathway. Attached is a list of the standards broken down by course and unit.

We also address employability standards such as applied knowledge, effective relationships and workplace skills. Including skills such as time management, technology use, information use, systems thinking and communication skills. All of these skills are addressed in our clinical internship course which coincides with our capstone course Biomedical Innovation.

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| **Standard Types**  | **Please list the standards your program of study uses and how it uses them below:**  |
| Academic Standards | Please see standards documents attached. |
| Career Cluster or Technical Standards | Please see standards documents attached. |
| Employability Standards  | Please see standards documents attached. |
| Other | Please see standards documents attached. |

# **SEQUENCE OF COURSES & CREDIT TRANSFER**

1. Please fill out the chart below, and describe your program of study’s course sequence by grade level, including the relevant or required academic and technical courses, as well as other required activities.

Make sure to highlight the course sequence that bridges secondary and postsecondary education, and explain how your program of study ensures students gain the broader Career Cluster-level knowledge/skills and, over time, gain the more specific occupation-level knowledge/skills as they progress through the program of study. You can also include graphics or [plans of study](http://careertech.org/sites/default/files/PlanStudy-CareerCluster-AG_0.pdf) of the course sequence in lieu of filling out the chart below.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Grade/Year | English/Language Arts | Math | Science | Social Studies/ Sciences | Other Required Courses/Other Electives/Learner Activities  | CTE Courses and/or Degree Major Courses |
| **9** |  |  | Biology |  |  |  |
| **10** |  |  |  |  | Students help run Blood Drives | Principles of Biomedical Science |
| **11** |  |  |  |  | Articulation with Los Rios Community CollegeHealth and Human Technology Course | Human Body SystemsMedical Interventions |
| **12** |  |  |  |  | Students job-shadow in clinical or research placements | Biomedical InnovationsClinical Internship |
| **13** |  |  |  |  |  |  |
| **14** |  |  |  |  |  |  |
| **15** |  |  |  |  |  |  |
| **16** |  |  |  |  |  |  |

1. How do you ensure that CTE instruction and coursework is integrated with core academics?

The instructors of our program hold valid CTE credentialing certifications. The credentialing program in CA ensures that instructors are knowledgable and well versed on career and technical education lesson design and implementation. This clearance involves demonstrating solid understanding of integrating core academics into CTE instruction and coursework. In addition, the Project Lead the Way courses have been written and aligned with Common Core Standards in Math, English Language Arts, Science (NGSS) and National Health Science.

1. List the opportunities for students to earn articulate and/or transcript dual enrollment credit across K-12 and postsecondary, such as AP/IB, dual and concurrent enrollment, capstone experiences and/or transcripted credit articulation agreements. (250 word limit)

Students are able to take two course Biotechnology 305 and 307 as dual enrollment with American River College within the Los Rios Community College District. Students can also receive articulation credit through Los Rios for taking our Medical Interventions course for Biotechnology 301 Biotechnology and Human Health through the same college. Student in our Medical Interventions course or our pathway in general are encouraged to take AP biology, AP statistics, AP chemistry as these courses align with the curriculum taught in our program. Students can receive College Board recognition for taking 3 of our 4 pathway courses along with one of the AP courses mentioned above.

Our capstone course, Biomedical Innovation, is where student are presented with real world problems and have to create a solution to these problems. One example of this is when students are presented with the issue of overcrowding in Emergency Rooms across the United States and have to design biomedical innovations, staffing plans, and use computer software to create a 3-D model of their new and improved ER design. Students also work with PhD students during the capstone experience in order to design and create a biomedical innovation of their choosing. They must create a prototype of this innovation, run tests on it, present their work in a formal oral presentation as well as in a symposium with industry partners and graduate student present. Our students have these opportunities and many more in our capstone course.

Along with our capstone experience students in our pathway can participate in a clinical internships course which correlates with Biomedical Innovation. Students in the internship course go out to local hospitals and work/ job-shadow on different floors within the hospital. They learn to take vitals, preform EKG’s, chart Ins and Outs, HIPPA, how to assist patients and much more. Students also have curriculum and assignment reading for the course as well as complete the Orthopedics in Action curriculum.

1. Please provide information on **at least three partnerships** with *education institutions and groups* your program of study has, and describe how these partnerships have been built, maintained and sustained over time. Use this space to specifically address the secondary and postsecondary partners that contribute to and maintain this program of study.

|  |  |  |
| --- | --- | --- |
| **Education Partnership Name** | **What role does this partner have in directly supporting your program of study?** | **How many years has this partnership been active, and how was this partnership developed?** |
| PLTW | Project Lead The Way provides transformative learning experiences for K-12 students and teachers across the U.S. They allow instructors to create an engaging, hands-on classroom environment and empower students to develop in-demand knowledge and skills they need to thrive. PLTW also provides teachers with the training, resources, and support they need to engage students in real-world learning. | Antelope has been a partner with PLTW since 2008. Since that time hundreds of students have become program completers and have gone on to pursue careers and postsecondary pathways in health and medicine. Antelope PLTW instructors also persistently engage in the professional development opportunities offered by PLTW locally and nationally. Antelope instructors have often been called upon to deliver workshops to teachers at the PD events. Also, instructors from Antelope have been recognized by PLTW for both state level and national level Teachers of the Year. |
| UC Davis | UC Davis has hosted an annual private workshop for Antelope High School PLTW students during the spring semester. During a full day visit students partake in a college style Genetics and Recombinant Gene Technology lecture by Dr. Denneal Jamison-McClung. Also, four graduate level students discuss their grant funded research projects with the students. The workshop continues with a tour of the campus and specifically the science facilities. It then concludes with a gathering at the campus center and visitation with current UC Davis students who are Antelope alumni. UC Davis also hosts an annual competition (Teen Biotech Challenge) that allows area high school students to design and submit a unique website that showcases various topics in the field of medicine/biotechnology.  Student submissions are eligible for monetary prizes and summer research scholarships. Antelope High School has placed at nearly every event it has participated in.UC Davis graduate students provide advice, support and assistance to the Antelope Biomedical Innovations capstone course seniors on their innovations senior project. Through this e-mentorship, the students groups remain in contact with their e-mentor for an 8 week period until the projects are complete and ready to be showcased at a district presentation. | This partnership has been active for 10 years. Two of the PLTW instructors (one former, one current) are UC Davis alumni and have retained numerous contacts. Through the maintenance of these contacts, Antelope has been able to establish and continue several collaborations that benefit the academic success of our pathway completers. |
| BETC (Biology to Careers Program) California Northstate University College of Health and Sciences | The Biology Education to Careers (BETC) Program engages students in the molecular life sciences by providing exposure, training, curriculum and resources to regional high school students and teachers.BETC offers hands-on biotechnology themed academic year full day workshops to high school students interested in exploring the life sciences. BETC also provides regional high school science teachers with training, curriculum and classroom resources to run engaging laboratory activities in their classrooms. | This partnership has been active since 2010. It was developed through our partnership with American River College. |
| American River College | This partner provides our advanced credit courses and articulation agreement. They have been instrumental in providing lab equipment and hands on lab opportunities (workshops) for our students. |   This partnership has been active for 6 years and was originally developed to supplement our Medical Interventions course. |

# **ALIGNMENT WITH INDUSTRY AND BUSINESS NEEDS**

1. Please describe how your program of study is aligned with the needs of the workforce and industry in your community. Make sure to include information on how the program of study helps meet workforce demand identified by business and industry. If applicable, what labor market data does your program of study use to align to workforce needs? (250 word limit)

In our area 22% of the fastest 50 growing occupations are in the health/biomedical related fields. Jobs in these areas have grown over the last year and are projected to grow between 28-45% over the next seven years.

Below are links to the labor market information and the Bureau of Labor Statistics which show the economic demand for health related careers in our area.

<https://www.bls.gov/regions/west/news-release/occupationalemploymentandwages_sacramento.htm>

<http://www.labormarketinfo.edd.ca.gov/data/occupations-in-demand.html>

1. Are ALL students in the program of study required to participate in a work-based learning opportunity? YES or NO.

NO

1. Please describe the work-based learning opportunities available to students who participate in this program of study. (250 word limit)

Students who participate in our program are eligible to work at UC Davis and conduct STEM cell research under the supervision of graduate students and professors. This is an 8-week research program during the summer that students are paid for. This opportunity results in a symposium where student present their work on a professional poster.

Students also have the opportunity to work at Sutter Roseville Medical Center or Mercy San Juan medical center where the job shadow Doctors, nurses and technicians. They can take vitals, chart ins and outs and assist with procedures. Senior students complete over 80 hours in this internship that lasts one semester.

Furthermore, we have had students participate in the Perry Initiative where students work with medical school students and surgeons to perform mock surgeries. Students receive a certificate of completion for this program. This is a program for our female students which focuses on getting more females interested in the area of orthopedics.

Lastly, we have had students participate in strawberry fungus research through William Jessup University. These students participated in the Sacramento regional science fair at American River College and won 2nd place for their research and their professional poster presentation.

1. Please list the industry-recognized credentials/certifications/licenses offered/required. If your program of study does not include industry-based credentials/certifications, please explain why. (200 word limit)

|  |  |
| --- | --- |
| **Offered** | **Required**  |
| Basic Life Saving CPR AED and First Aid |  |
|  |  |
|  |  |

1. Please describe how you ensure the instructors teaching this program of study keep up-to-date on advancements in the workplace, such as participating in externships and/or requirements to have current industry credentials. (100 word limit)

The instructors in our program have either obtained or are actively working toward CTE credentialing required for the instruction of the program of study. The CA Designated Subjects CTE Teaching Credential authorizes the holder to teach in the subject or subjects named on the credential in grades twelve and below and in classes organized primarily for adults, including services to English learners in Specially Designed Academic Instruction Delivered in English (SDAIE) in career technical, trade or vocational courses. The industry sector named on the credential for Antelope PLTW teachers is Health Science and Medical Technology.

1. Please provide information on **at least three** *business, industry and/or labor* partnerships your program of study has, and describe how these partnerships have been built, maintained and sustained over time.

|  |  |  |
| --- | --- | --- |
| **Business/Industry Name** | **What role does this partner have in directly supporting your program of study?** | **How many years has this partnership been active, and how was this partnership developed?** |
| Sutter Roseville Medical Center | Sutter Health is a not-for-profit health system in [Northern California](https://en.wikipedia.org/wiki/Northern_California), headquartered in [Sacramento](https://en.wikipedia.org/wiki/Sacramento%2C_California). It includes doctors, hospitals and other health care services in more than 100 Northern California cities and towns. Major service lines of Sutter Health-affiliated hospitals include cardiac care, women’s and children’s services, cancer care, orthopedics and advanced patient safety technologyThe Sutter Roseville Medical Center has allowed for sixteen Antelope High School seniors to intern in over 10 departments during the fall and spring semester. Students shadow and assist physicians, nurses and technicians in these different modalities for 14 weeks during school hours. The Sutter employees provide the students with a myriad of hands-on patient interaction experiences, exposure to usage of medical technology equipment and devices, and experience with trauma and ER procedures. | This has been a 6 year active partnership developed through the Sutter Health volunteer coordinators and talent acquisition directions for the region. |
| Dignity Health Systems | Dignity Health is a [California](https://en.wikipedia.org/wiki/California)-based [not-for-profit](https://en.wikipedia.org/wiki/Non-profit_organization) [public-benefit corporation](https://en.wikipedia.org/wiki/Public-benefit_corporation) that operates hospitals and ancillary care facilities in 3 states. Dignity Health is the fifth largest hospital system in the nation and the largest not-for-profit hospital provider in California. Mercy San Juan Hospital has allowed for 10-15 Antelope High School seniors to intern in the hospital’s Imaging and Trauma Med Surg departments.  Students shadow and assist physicians, nurses and technicians in these different modalities for 14 weeks during school hours. The Dignity employees has claimed that the addition of our students interns has not only help to assist the employees in a positive manner, but has also greatly improved the quality of patient care and satisfaction. | This has been a 2 year active partnership developed through the Sacramento County of Education partnership with Dignity Health’s talent acquisition director and Marty Habib the Radiology department director for the region. |
| Kaiser Permanente | Kaiser Permanente’s KP LAUNCH programs offer young adults a variety of paid internship opportunities in their medical offices across northern California. Their goal is to build and sustain a diverse, culturally competent workforce for the future.Each summer students from Antelope’s PLTW biomed program are accepted in this programs which has an extremely rigorous vetting process. | This has been a partnership for 6 years developed through Kaiser Permanente volunteer services. |
| The Perry Initiative | The Perry Initiative, founded in 2009 by Dr. Jenni Buckley and Dr. Lisa Lattanza inspires young women to be leaders in the fields of Orthopaedic Surgery and Engineering. The Perry Initiative runs over 40 one-day hands-on, interactive outreach programs nationwide and has reached over 6000 high school, college, and medical students. Students from Antelope have been accepted to participate in the program during its workshop at Shriner’s Hospital for Children in Sacramento. | This partnership has been active for 7 years. It was developed through a professional relationship with Dr. Jenni Buckley who came out to speak at our school and has since created an Orthopedic curriculum call Orthopedics in Action. She has done training for this curriculum at our school site as well. |

1. Please feel free to use the space below to share any other information or evidence of success of your program of study and the students who participate. (Optional)

Below are links to blogs published by PLTW regarding our program and the college success stories of individuals in our program.

<https://www.pltw.org/blog/preparing-students-for-post-secondary-education-and-their-professional-careers>

<https://www.pltw.org/blog/increased-female-enrollment-in-stem-pathways>

<https://www.pltw.org/blog/keep-learning-during-summer-our-fun-summer-stem>

Below is a link to the newspaper article published by our local newspaper regarding one of the instructors in our program.

<http://www.thepresstribune.com/article/11/08/17/rjuhsd-educator-wins-national-teacher-year-award>

1. If applicable, please provide more detail on any partnerships your program of study has that have not been mentioned already. This includes community groups, non-profits, volunteer organizations, etc. Describe how these partnerships have been built, maintained and sustained over time. (Optional)

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| --- | --- | --- |
| **Additional Partnerships** | **What role does this partner have in directly supporting your program of study?** | **How many years has this partnership been active, and how was this partnership developed?** |
| Blood Source | Blood Source works with our site to provide 2 large scale community blood drives per school year. The students in the biomed program plan event logistics, recruit donors, provide staff/donor support and registration facilitation and orchestrate set up/breakdown of venue on the school campus. Antelope high school has received accolades from Blood Source for most registered donors and most pints collected a single drive. Blood Source and Antelope then transition the partnership by collaborating on an on-site visit by our entry level students to see first-hand how donor blood is collected, processed, analyzed and distributed nationwide. The Blood Source RNs also provide a hands-on simulation of vein identification, taking vitals and post donor care for our students. Students enjoy and greatly benefit from the vocational exposure. Blood Source also takes the opportunity during this visit to enlighten students on the dire importance of supporting the blood bank supply in Northern California. |           This partnership has been active for 10 years and was originally created for the students in our program to give back to the community by hosting Blood Drives at our school. |
| American Cancer Society | The Antelope biomed students are actively involved in community support of local charity organizations. Students volunteer their personal time to support events sponsored by American Cancer Society and Breast Cancer Research. Through this partnership students gain valuable exposure to the importance of philanthropic contributions to  making advancements in medicine.  | The Biomed Club students (who are also PLTW students) reach out to various community organizers annually to expand the mission of the biomed club to include community service and philanthropy. By contacting the Community Support Directors directly to obtain information about volunteer opportunities. |
| Folsom Lake College | Through the generous time and efforts of the pre-professional health alliance and Dr. David Lagala, the Antelope biomed students have had exposure to an college academic laboratory setting, a pre-medical clinical cadaver laboratory experience and a Q & A forum for college and career choices conducted by the college students. | The Sacramento County Office of Education and CRANE (Capital Region Academies for the Next Economy) have worked closely with Antelope High School to support the Project Lead the Way program there. Trish Parker facilitated a connection between Antelope and FLC that has since grown into a mutually beneficial partnership. |

# **SUBMIT YOUR APPLICATION**

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* Fill out this application.
* Once you have finished, complete [this form](https://careertech.org/2018-excellence-action-application) and upload the following:
* Your full application saved as a Word document (.docx)
* All of your supplemental documents or evidence consolidated as one PDF document.

**THANK YOU!**

Thank you for completing this application! The selection committee will convene in December 2017 to review the applications and make final decisions. You will know the status of your application by January 25, 2018. The programs of study will be evaluated based on their effective leveraging of partnerships, alignment to rigorous and relevant college- and career-ready expectations, clear progression of knowledge and skills across secondary and postsecondary systems, integration of successful career guidance/advisement, and key indicators of student success.

Don’t forget to use the Excellence in Action award submission checklist to make sure you’ve completed your application in its entirety.

We look forward to learning more about your program!

For questions, concerns please contact awards@careertech.org.