

FY 2019 Projects Funded

\$432,293

1. Projects -Technical Skill Attainment

- 1) The objective of this action step is to upgrade our computers to provide effective and ethical use of technology. The main purpose is to not affect the live production network that the CCD community-at-large. Our program must operate within a closed network only accessible to the CIS/IT program. Currently we are using what is known as a multiple partitioned environment, which is an outdated and highly inefficient learning environment. We cannot be on the production network while students are learning how to deploy and defend computer networks. This action would jeopardize the live network that the college uses. We also need to upgrade our labs with more robust and modern equipment. Including software, to be able to implement current technological solutions that are being utilized in industry today. This upgrade will enhance our ability to implement virtualized environments, which is more educationally valuable to students. In addition to enabling virtualization. We will need to purchase and deploy equipment capable of handling the heavy processing loads of development. Database and gaming software for the continued growth of the Networking and Computer Science courses. Through the utilization of a software called VMware we can replicate virtual computers; thus utilizing different operating systems for students to learn on, with a drastically reduced time commitment. All of these proposed implementations require a closed network in which the students can experiment, and easily remedy if a mistake is made. Updating two computer labs with 50 new computers will help the current growth of our program. We have recently expanded our program offerings to include Cybersecurity and Data Analytics. This will enable us to implement full Virtualization of Operating Systems in our labs. This will require 32GB (4x8 GB) 2400MHz DDR4 Memory with a 2.5-inch 1TB 7200rpm Hard Disk Drive. The expected outcomes of this project are to teach students how to effectively and ethically secure and

defend network systems. The element of Cybersecurity is an in-demand skill set. Virtualization of Operating Systems will enhance their ability to develop an environment by building systems with an industry standard technology and to learn the necessary skills to secure networks. This will provide graduates practical experience in a virtual environment to effectively and ethically secure business systems and mitigate modern cyber threats. The purchase of this new equipment and software will allow us to use current hardware and software that meets current industry standards for building and securing networks. It aligns with our program growth in Computer Science, Computer Information Systems and Business Technology Education. Our division has grown and our computer needs have grown in order to accommodate the needs of our students. Purchase 50 computers at \$1574 each.

CIS: Update 2 Computer Labs

\$84,144

- 2) This request is for non-capital purchases to support the implementation of a capstone WEL 251 course. The purchase will include an Industrial Magnetic sheet metal brake, 3" hydraulic pipe bender, 52" sheet metal shear, and Scotsman metal punches, and the Encho horizontal belt-sanding machine for use in the course and across the welding curricula. This project will incorporate the use of these machines and tools so that the class and program is better equipped for fabrication projects aligned with course outcomes. The objective of the action step is to add a WEL 251: Design, Layout and Fabrication course to the degree program. The course objectives will incorporate requests from the advisory committee to reinforce blueprint and fabrication concepts. Students in the course will be required to read and interpret simple drawings and sketches which also include welding symbols as well as to demonstrate how to follow written work procedures and Welding Procedure Specifications on these machines, fabricate parts to proper size and fit simple assemblies by using mechanical means that include machine tools and welding and cutting processes, lay out an assembly as per blueprints or drawings, weld assemblies and fabricate steel parts. This course is a capstone in the welding and

fabrication program. Our program student learning outcomes will be improved by incorporating a capstone course that reinforces core outcomes: applied learning, communicating effectively, critical thinking, demonstrating responsible and professional workplace behaviors, integrating technology, working collaboratively and in team-based environments with respect and appreciation for diversity, and the use of mathematics effectively to understand how to measure and fabricate with accuracy. Students will also gain first-hand experience with using these type of machines and understand the layout and work involved to create assemblies and steel fabrication parts. This will better prepare them for the workforce with fabrication experience and an 11soft" skillset. The purchase aligns with objectives by increasing the capacity of the fabrication welder program to offer a comprehensive, capstone fabrication course. The course also fulfills the requests of the advisory committee to reinforce soft skills and some essential blueprint reading skills. Soft skills include working in teams, prioritization techniques and time management. The objectives of the course require students to interpret simple layout and drawings into manufactured parts and assemblies - from blueprints and to specifications. Utilizing these machines and tools to fabricate at different steps will allow for projects that reinforce these concepts and prepare for success in the workplace.

WEL: Capstone material needs \$4,688

- 3) Fabrication welding will purchase two Syncrowave 350 millers with torch and runners. The objective of this action step is to expand and diversify the technical knowledge platform at the school. Technology in the welding industry is rapidly progressing. Our current machines do not allow for modern techniques like pulse-spray. Multi-process machines are the new foundation for modern welding environments. These machine upgrades are essential for a state of the art welding educational program that prepares students for success after graduation. Student learning outcomes will be more relevant with the new equipment. Program capacity and machine reliability will also be increased. Student outcomes will be improved by deepening students' technical knowledge of multi-process units (i.e. identifying the right

tips on welding guns). Specifically, the project affects these PSLOs:
Use industry standard terminology to discuss weld joints fabrication/design solutions and weld examination, Set up and operate various electrical process welding and cutting. This purchase aligns with the objective to deepen and diversify the technical skill set of students by exposing them to modern welding equipment. Students will be oriented with machines that are common in the industry which will prepare them for success after graduation. In addition, the purchase of new, more reliable, machines will create a more consistent learning environment and mitigate the impact of machine failures in the lab. The purchase will allow us to have back up machines when repairs are needed - instead of requiring students to share machines when a machine goes down. As well, the capacity for more creative and robust projects will be increased.

WEL: (2) Syncrowave Miller machines \$15,892

- 4) Fabrication welding will purchase two Dynasty 280 DX Complete millers with torch and runners. The objective of this action step is to expand and diversify the technical knowledge platform at the school. Technology in the welding industry is rapidly progressing. Our current machines do not allow for modern techniques like pulse spray. Multi-process machines are the new foundation for modern welding environments. These machine upgrades are essential for a state of the art welding educational program that prepares students for success after graduation. Student learning outcomes will be more relevant with the new equipment. Program capacity and machine reliability will also be increased. Current and potential students will benefit from these machines with exposure to the nuance of their operation and alignment with current industry standards. Complex Thinker - promote critical and complex thinking by exposing students to multi-process machines that will require assessing the process, understanding the existing machine settings, and adjusting as required. Exposure to different machines and machine processes will also prepare students for modern industry technology and prevent them from freezing up in front of new equipment. This purchase aligns with the objective to deepen and diversify the

technical skill set of students by exposing them to modern welding equipment. Students will be oriented with machines that are common in the industry which will prepare them for success after graduation. In addition, the purchase of new, more reliable, machines will create a more consistent learning environment and mitigate the impact of machine failures in the lab. The purchase will allow us to have back up machines when repairs are needed - instead of requiring students to share machines when a machine goes down.

WEL: (2) Dynasty Complete Miller machines \$13,582

- 5) Fabrication welding will purchase two Millermatic 350P machines. The objective of this project is to expand and diversify the technical knowledge platform at the school. Technology in the welding industry is rapidly progressing. Our current machines do not allow for modern techniques like pulse-spray. Multi-process machines are the new foundation for modern welding environments. These machine upgrades are essential for a state of the art welding educational program that prepares students for success after graduation. Student learning outcomes will be more relevant with the new equipment. Program capacity and machine reliability will also be increased. The acquisition of this new, modern equipment will allow for an increase in student FTE. Current and potential students will benefit from these machines with exposure to the nuance of their operation and alignment with current industry standards. The new machines will be incorporated in fourteen courses affecting morning, afternoon, and evening course offerings (WEL 100, 101, 102, 103, 104, 110, 111, 124, 125, 178, 202, 224, 251, 264). Students will be trained on the machines to be able to fabricate, design, and weld with multi-process units. This will also allow for increasing the number of opportunities for students to utilize modern technology to connect the (design 3D modeling 7 fabrication) value chain.

WEL: Millermatic Miller machines

\$14,850

- 6) Fabrication welding will purchase one TORCHMATE CNC cutting table_74 x 114 x 63 with plasma cutter. This purchase aligns with the objective to deepen and diversify the technical skill set of students by exposing them to modern welding equipment that requires g-code programming, 2-D layout and design, and sheet metal fabrication. Students will be oriented with a machine that is common in the industry which will prepare them for success after graduation. In addition, the purchase of new, more reliable, machines will create a more consistent learning environment and mitigate the impact of a machine failure in the lab, requiring students to share machines when a machine goes down. The capacity for more creative and robust projects using sheet metal fabrication will be increased. The purchase will include an updated CNC plasma cutter. The new machine will be incorporated in fourteen courses impacting morning, afternoon, and evening course offerings (WEL 100, 101, 102, 103, 104, 110, 111, 124, 125, 178, 202, 224, 251, 264). Students will be trained on the machines to be able to fabricate, design, and weld with sheet metal. The larger CNC plasma cutting table will replace the outdated and out of production unit currently used in the WEL 101 course. The expected outcomes for this project align with and enhance existing program student learning outcomes. Student outcomes will be improved by deepening students' technical knowledge of CNC plasma cutting and multi process units (i.e. identifying the right tips on welding guns). Specifically, the project affects these PSLOs: Use industry standard terminology to discuss weld joints, fabrication/design solutions and weld examination; Examine welds and CNC cuts to code level requirements; Use the CNC plasma table to solve complex fabrication projects; Set up and operate electrical processes on CNC cutting equipment to prepare fabrication work pieces? Set up and operate various electrical process welding and cutting equipment. This purchase aligns with the objective to deepen and diversify the technical skill set with sheet metal by exposing them to modern welding equipment. Students will be oriented with machines that are common in the industry which will prepare them for success after graduation. In addition, the purchase of new, more reliable, machines will create a more consistent learning environment and mitigate the

impact of machine failures in the lab. The capacity for more creative and robust projects will be increased.

WEL: Plasma Cutter

\$28,746

- 7) The objective of this action step is to credential a WEL instructor as a Certified Welding Inspector (CWI) and Certified Welding Educator (CWE). This will benefit students by having someone who can credential students on AWS qualifications offered in the program. During this AWS CWI training, they will get prepared with training to take the CWI examination. Currently, there is only one CWI on staff, Kevin Dowell. He is the lead trainer for the BNSF corporate training program and credentials tests for credit students' pro-bono. Credentialing a credit instructor will reduce this burden, distribute risk, and increase the technical expertise of the department. The purchase will cover the cost of a 5-day seminar training and CW Exam for one instructor, Andrew Fowler. The trainee will receive extensive knowledge on the D1.1 the Codebook. Certain topics such as nondestructive and destructive testing will be covered. Qualification and certification documents for testing will be practiced. Codes and Standards for D1.1 will be reviewed. The AWS test for becoming a CW will be taken. CW's mainly inspect commercial structural steel. They are capable of inspecting any type of welding you can imagine, including product manufacturing, aerospace, underwater dam repair, oil and gas, refineries, and much more. The school needs to have more than one CW available for the students. The CWE is an assurance that the individual not only understands welding codes and inspection, but also how to teach it effectively. The AMC needs a second CW on staff in case the BNSF lead trainer is unavailable to credential students. Students will learn how to determine which inspections are required and how to perform inspections. Weld defects and will be explained. Visual and destructive skills will be taught during and after welding. Students become proficient in the use of various inspection tools required in the industry. They will experience welding procedures from certified CW. Weld procedures and welder qualification tests will also be completed written final. Students will also benefit from a CW on staff with eligibility to earn four, AWS qualifications (industry

certifications) while in the program. The purchase of the CWI/CWE seminar and exam package for Andrew Fowler aligns with the objective to get another CW on staff. The exam has proved difficult to obtain so the inclusion of the seminar will greatly increase the probability of success. Getting another CW on staff will also elevate the expertise for the program and allow for the incorporation of additional AWS qualified tests to be embedded in the program.

WEL: CWI Training

\$2,758

- 8) Fabrication welding will purchase one Jet 52" by 14 gauge hydraulic sheet metal shear capable of cutting metal sheets up to 14 gauge with a foot control. The objective of the action step is to add a WEL 251: Design, Layout and Fabrication course to the degree program. The course objectives will incorporate requests from the advisory committee to reinforce blueprint and fabrication concepts. Students in the course will be required to read and interpret simple drawings and sketches, which also include welding symbols. Demonstrate how to follow written work procedures and Welding Procedure Specifications on these machines. Fabricate parts to proper size and fit simple assemblies by using mechanical means that include machine tools, welding and cutting processes, lay out an assembly as per blueprints or drawings, and weld assemblies and fabricate steel parts. This course is a capstone in the welding and fabrication program. The expected outcomes of the project will include a course offering of WEL 251 with eight students participating. PSLOs will be improved by incorporating a capstone course that reinforces core outcomes: applied learning, communicating effectively, critical thinking, demonstrating responsible and professional workplace behaviors, integrating technology, working collaboratively and in team-based environments with respect and appreciation for diversity, and the use of mathematics effectively to understand how to measure and fabricate with accuracy. Students will also gain first-hand experience with using these type of machines and understand the layout and work involved to create assemblies and steel fabrication parts. The purchase aligns with objectives by increasing the capacity of the fabrication welder program to offer a comprehensive, capstone fabrication course. The

course also fulfills the requests of the advisory committee to reinforce soft skills and some essential blueprint reading skills. Soft skills include working in teams, prioritization techniques, and time management. The objectives of the course require students to interpret simple layout and drawings into manufactured parts and assemblies - from blueprints and to specifications. Utilizing these machines and tools to fabricate at different steps will allow for projects that reinforce these concepts and prepare for success in the workplace.

WEL: Hydraulic Metal Shear

\$8,899

- 9) The purpose of this action step is for medical assisting faculty to attend the American Association of Medical Assistants Conference in order to gain valuable skills and knowledge presented at this conference to bring back to the MA program. Additionally, this will be the conference before our accreditation site visit. I will be meeting with the co-leads on the site visit to do a preliminary review of the self-study prior to the site visit in October. I will be utilizing this purchase to pay for and attend the 62nd Annual AAMA conference in Salt Lake City, Utah in September. While there, I will be attending the following sessions: Instructional Design - Back to the Basics, De-escalation of Classroom Conflict, Deskercize, CMA (AAMA) Knowledge Bowl, and Do You Remember How to Communicate, Disaster Medical Assistance Team (DMAT) Preparedness, Differentiated Instruction Methodology, Active Shooter Response Preparedness, Pharmacology Review, Opioids, and the President's Luncheon. While I am there, I will also be meeting with the co-leads of the site visit that will occur in October to perform a preliminary review of the MAP self-study. **Outcome 1:** *To workshop the learning objectives in our current MAP 140 course in the Instructional Design - Back to Basics workshop to ensure students are meeting all of the cognitive, psychomotor, and affective learning domains and that we are measuring the correct Bloom's Taxonomy associated with each outcome. Students' learning objectives will be more clearly delineated and appropriately aligned with Bloom's taxonomy but students will also, through this work, be able to demonstrate all of the cognitive, psychomotor, and affective learning domains.* **Outcome 2:** *As part of the MA curriculum standards,*

*medical assistants must be prepared to handle emergencies. At this time, the curriculum is underdeveloped in this area. We hope to gain knowledge and insight through the DMAT Preparedness session to better equip our MAs with the necessary skills to be effective in this area. Students are currently not receiving the most up-to-date emergency preparedness and through this work, we hope to be able to provide our students with the knowledge they need to be more prepared in situations such as this. **Outcome 3:** The Program Director will be meeting with the co-leads of the site visit in October to review and workshop the self-study. Students are not directly involved with this; however, with a successful site visit in October, students will be eligible to sit for the Certified Medical Assistant boards that is the highest level of certification in the nation for medical assistants.*

How will travel help improve the CTE program?

As part of the MA curriculum standards, medical assistants must be prepared to handle emergencies. At this time, the curriculum is underdeveloped in this area. We hope to gain knowledge and insight through the DMAT Preparedness session to better equip our MAs with the necessary skills to be effective in this area. Students are currently not receiving the most up-to-date emergency preparedness and through this work, we hope to be able to provide our students with the knowledge they need to be more prepared in situations such as this.

MAP: Conference Attendance

\$2,105

- 10)** The purpose of this action step is to receive personal training from the Anatomage specialists at the Anatomage Table Annual Users Group Meeting in San Jose California. Training includes classroom lectures and interactive workshops to improve teaching methods for all health science programs, including Radiographic Technology, Surgical Technology, Veterinary Technology, Dental Hygiene, Integrated Nursing Pathway, Nurse Aid and Medical Assistant. Through the experience, they will gain perspective on how to maximize the use of the Anatomage table. Johanna Morrison and Walter Evans will acquire

knowledge related to visualizing the anatomy in three dimensions, which will increase their ability, as super users, to train faculty on the best use of the table, so faculty, and adjuncts can integrate this technology into their classroom. The goal is to improve the classroom experience for all health science programs by offering training and professional development opportunities to all health science programs (listed above), This will occur through specific organized and scheduled monthly training on the Anatomage table at the Lowry campus, for all health-related courses. The conference on the Anatomage table allows for construction and deconstruction of the human and animal habitus, which allows comparison of normal and abnormal biology, physiology, anatomy, in order to formulate conclusions that relate to disease processes. Case studies of other universities use and assessment of student learning will be covered at the conference and can be applied to the health science courses and programs. The expected outcome is to train all health science faculty on the best practices used with the Anatomage table. These best practices can be applied in the classroom to increase students engagement and learning outcomes. Examples of improved outcomes: Dental Hygiene increased test scores in areas that include head and neck anatomy, as this field requires intricate knowledge of blood supply, nerves, lymphatics and bony structures. Veterinary Technology: increased knowledge of animal anatomy and reducing the exposure to carcinogenic formaldehyde, a chemical needed to preserve cadaver animals. Surgical Technology and Radiographic Technology provide state-of-the-art technology in the lab to explore, survey, and interpret the human body in 3-D prior to the clinical experience to discover the spatial relationship of body systems. This interactive table will engage students and increase their ability to be successful and complete their program of study. This training supports faculty development so the student experience in the classroom will be engaging and interactive. RTE offers a "live" cadaver field trip, to accommodate students who cannot attend, due to cost or scheduling conflicts, the Anatomage offers an interactive learning experience without visiting the cadaver lab. Faculty in all programs and departments will be invited to be trained. The professional development of faculty will enrich the programs in the health science department, so student learning can be improved. The expected

outcome is that students will increase their knowledge of normal and abnormal pathology in all of the body systems.

How will travel help improve the CTE program?

The expected outcome is to train all health science faculty on the best practices used with the Anatomage table. These best practices can be applied in the classroom to increase students engagement and learning outcomes. The expected outcome is that students will increase their knowledge of normal and abnormal pathology in all of the body systems. This training is being used to improve the technical skill attainment of all of our health science programs by providing more time for students to engage in real-life practice of their skills.

CHS: Anatomage table training

\$4,200

2. Projects - Placement

- 1) Criminal justice will purchase one portable police simulator. This will increase enrollment, retention, and graduation rates by recruiting traditional and non-traditional students through innovative, educational tools and techniques that will have an immediate impact on their employment prospects. We will use this simulator to:

1. Teach students how to conduct an "Initial Incident investigation"

2. Increase student's situational awareness through training Students will be able to evaluate a variety of situations and make sound decisions based on the training. Students will be taught comprehension of current situations and how to make quick accurate decisions. With the simulator, we will teach the eight basic functions of policing:

- a. Learn to Predict Events
- b. Identify Elements around You
- c. Trust Your Feelings

- d. Limit Situational Overload
- e. Avoid Complacency
- f. Be Aware of Time
- g. Begin to Evaluate and Understand Situations
- h. Actively Prevent Fatigue Statistics show an increase in retention and jobs will be tremendous with various technology.

We want to provide a site in which learning can occur, but also we meet the needs of our students by recruiting and developing a workforce so that as the technological aspects of education increases; students at CCD will be prepared to compete in the competitive job markets.

CRJ: Portable Police Simulator \$24,150

- 2) This action step will be used for drone training for our criminal justice faculty and instructors (4 at \$190 each) so that drones can be taught effectively to our students. The purchase will include books and DVD training materials. In House Bill 17-1070, the Colorado General Assembly found, the use of (Unmanned Aircraft System) Drones, by public safety organizations, will create opportunities and jobs. Those findings are bolstered by national data from (Association for Unmanned Vehicle Systems International), AUVSI, the world's largest nonprofit organization dedicated solely to advancing the unmanned systems and robotics community. According to a national economic impact report conducted by AUVSI, in the first three years of drone integration, more than 70,000 jobs in criminal justice will be created nationwide, with an economic impact of more than \$13.6 billion. According to the Wall Street Journal, 2018, along with the drones come new jobs. In the US alone, 70,000 new drone-related jobs are projected within the next three years; 100,000 new jobs are expected by 2025. In order to provide a trained workforce capable of meeting this demand, schools are already jumping in and offering drone programs and degrees. CCD is using this data to improve our criminal justice program to include drone use. Retention and graduation rates will increase because we can outpace the competition with technology

that law enforcement is using today which in-turn will increase the marketability of our students. We will begin a standalone certificate program in drone piloting and or stackable certificates. Colorado is home to one of the first law enforcement agencies in the country to begin using drones.

Based on this action step, the students will be:

1. Trained to be drone pilots
2. Taught how to conduct an initial Incident investigation
3. Taught how to properly conduct surveillance
4. Conduct aerial crime scene investigations

CRJ: Drone Training for Faculty \$760

- 3)** This action step will purchase four drones at \$1419 each for our criminal justice program. In House Bill 17-1070, the Colorado General Assembly found, the use of (Unmanned Aircraft System) Drones, by public safety organizations will create opportunities and jobs. Those findings are bolstered by national data from (Association for Unmanned Vehicle Systems International), AUVSI, the world's largest nonprofit organization dedicated solely to advancing the unmanned systems and robotics community. According to a national economic impact report conducted by AUVSI, in the first three years of drone integration, more than 70,000 criminal justice jobs will be created nationwide, with an economic impact of more than \$13.6 billion. According to the Wall Street Journal, 2018 "Along with the drones come new jobs. In the US alone, 70,000 new drone-related jobs are projected within the next three years; 100,000 new jobs are expected by 2025. In order to provide a trained workforce capable of meeting this demand, schools are already jumping in and offering drone programs and courses. While some private and governmental agencies have opted to purchase drones, El Paso County officials say, "We turned toward the private sector to have constant access to the latest technology and the knowledge of how best to use it."

CRJ: Four DJI Mavic Pro Platinum Drones \$5,680

- 4) With this action step, we are purchasing two stereolithographic 3D printers for our computer-aided drafting and design courses. Stereolithographic 3D Printing or SLA is an additive manufacturing technology. By focusing light from a UV laser at a vat of photosensitive liquid resin known as photo polymerization to cure into a hardened plastic part. The current 3D printers are FDM (Fused Deposition Modeling) which heat to melting a string of plastic to slowly build up the shape, leaving a rough exterior finish, and a lower level of dimensional correctness. The SLA method is more dimensionally true and has a much higher quality finish, allowing the parts to fit together correctly without a great deal of finishing work. The smaller the part the greater the need for these fit and finish improvements, such as in small-scale architectural models. For the CADD side the extra strength and dimensional stability allow the parts to be used for more than just capturing design intent but actually can be used for test of the parts before committing to subtractive (machining) manufacturing for real parts. By adding these two SLA printers to the program we will be enlarging the number of 3D printers available to the students and provide another of the types of 3D printers systems the students need to have expectance with. Adding these 3D printers to the existing 3D printers will increase throughput of models. The unknown issue with 3D printing is that the process is slow causing a long waiting line of students waiting to have access to printing their designs.

EGT: (2) Stereolithographic 3D Printers \$14,458

3. Projects - Student Retention

- 1) The Community College of Denver proudly houses a number of CTE programs, and tracking the equipment, materials, personnel, and needs of these programs requires materials. These funds will be used to purchase necessary materials including postage, Xeroxing, paper, pens, notebooks, required Perkins tag-able housing boxes, and other

materials necessary for the efficient running of a Perkins plan. CCD is using the 5% we are allowed as administrative costs for these materials and direct charging it rather than doing it as an indirect charge.

CTE Administrative Costs \$8,000

- 2) The Community College of Denver proudly houses a number of CTE programs, and taking the equipment, materials, personnel, and needs of these programs requires time. These funds will be used to hire, train and utilize a CTE Administrative Support Specialist for these purposes. This person will report directly to the Perkins Administrator and will work closely with the administrator to improve processes, engage in the data collection and placement needs of the program, and gather data for the embedding project which is being planned to improve completion rates. Additionally, the specialist will be charged with creating an advisory committee website to track all advisory committee by-laws, memberships, and meeting minutes. This will be accessible by chairs and deans so that they can track their committees, and to encourage collaboration across the college, CCD is using the 5% we are allowed as administrative costs for this position and direct charging it rather than doing it as an indirect charge. Helping instructors with advisory committees will assure that industry provides information about needed skills so that our CTE students are placed in jobs upon completion of their CTE program certifications or degrees.

CTE Administrative Support Specialist \$8,000

- 3) This is a combined request of Graphic Design, Journalism and Architectural Technologies to equip one classroom with effective learning tools in the form of advanced technology. We will use metrics that demonstrate a 10% improvement in completion rates, a 15% increase in job placement rate, a steady increase in enrollment, and a balanced diversity. The funds will be used to create and support pedagogies that deeply involve students in the learning process.

Teachers and methods vary, so the new classrooms will be able to accommodate group participation, individual Studio/lab work, production, and prototyping - from one class to the next, or even during the same class period. The new capabilities will be a natural catalyst for convergent media incorporating and creating new modes that build on existing communications channels and social media like Facebook, YouTube, and Twitter. The new space will enable us to expand our course offerings that could include on-site and studio journalism, photojournalism, architectural design and drafting, graphic novel production, and motion graphics. In addition, the new technology will provide a platform for collaborative learning. Assessments will be conducted to test if the students are more successful in retention, job placement, and transfer rates. Students will learn advanced problem solving and creative skills through new digital design software on current leading-edge computer hardware that is the industry's standard. This will increase the student's value and success in the professional marketplace. By providing students and teachers with effective learning tools, we will be able to produce graduates that exceed the needs of industry standards for employment. We will use metrics that demonstrate a 10% improvement in completion rates, a 15% increase in job placement rate, a steady increase in enrollment, and a balanced diversity.

30 iMac computers for multi-media graphic design, multi-media journalism, and architectural technologies \$50,000

- 4) This action step will provide educational and programmatic leadership for the surgical technology program by allowing CCD to fund the salary and benefits of a full-time faculty member. This faculty member will teach and chair the surgical technology program, which will have 20 students entering this fall. This faculty member will also be involved in ensuring initial accreditation for this program.

Full-time Faculty in Surgical Technology \$63,391

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- 5) This action step will provide educational and programmatic leadership for the practical nursing program by allowing CCD to fund the salary and benefits of a new full-time faculty member. This faculty member will teach and chair the practical nursing program, which is scheduled to begin in the first half of 2019, and we are anticipating 24 incoming students to the program.

Full-time Faculty in Practical Nursing \$77,990