Substantive Change Proposal

Adding an additional location for the Industrial Maintenance Technology Certificate and the Electrician Training Certificate offered by the Division of Industry & Technology at the College of the Sequoias Hanford Educational Center

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Sequoias Community College District
Substantive Change Proposal

Industrial Maintenance Technology Certificate
Program offered by the Division of Industry & Technology
At College of the Sequoias
Hanford Educational Center

The purpose of this report is to request approval for offering the Industrial Maintenance Technology Certificate and the Electrician Training Program at the College of the Sequoias Hanford Educational Center.

Brief Description of the College of the Sequoias

College of the Sequoias (COS) is a public two-year community college located in Visalia, California, with centers located in the surrounding communities of Hanford and Tulare. The current enrollment of COS is over 13,000 students, and the District offers a variety of transfer, vocational and community-based classes.

In 1926, College of the Sequoias was originally established as Visalia Junior College and was a department in the city’s high school. Its mission at that time was to provide inexpensive, lower-division college education to local high school graduates who intended to transfer to a traditional four-year college. Visalia Junior College was later expanded and the Visalia campus was built in 1938. In 1949, a separate district was created and was renamed College of the Sequoias Community College District.

The College of the Sequoias serves the communities of: Corcoran, Exeter, Hanford, Farmersville, Lindsay, Orosi, Three Rivers, Tulare, Woodlake, and Visalia. In addition to the Visalia Campus, the District has operated an outreach site in Hanford for nearly 30 years and a Center site in Tulare since spring 2012.

College of the Sequoias is part of California's public community college system of 112 campuses across the state. The District's Mission is focused on helping our diverse student population achieve their transfer and/or occupational objectives and advancing the economic growth and global competitiveness of business and industry within our region.

COS is a fully accredited California Community College serving Tulare and Kings Counties in the middle of California's vast San Joaquin Valley. It offers 156 certificate and degrees (84 certificates and 72 AA/AS degree programs) in a variety of vocational, technical and academic disciplines. The District’s programs articulate with both University of California and California State University systems, as well as private colleges and universities. The District’s student body is diverse. College of the Sequoias has seen a significant increase in the enrollment of Latino and low-income students who are the first in their families to attempt higher education. The District includes large numbers of migrant workers and their families, chronically high unemployment, high rates of poverty, and low levels of educational attainment. A large number of residents are from homes where English is not spoken as the primary language.
Stated Mission

College of the Sequoias is a comprehensive community college focused on student learning that leads to productive work, lifelong learning and community involvement. There are three areas of the District’s Mission. First, the District provides a comprehensive community college focused on student learning that leads to productive work, lifelong learning and community involvement. Secondly, the District affirms that our mission is to help our diverse student population achieve their transfer and/or occupational objectives and to advance the economic growth and global competitiveness of business and industry within our region. Lastly, College of the Sequoias is committed to supporting students’ mastery of basic skills and to providing programs and services that foster student success.

A Brief History

The major population centers for our service area lie in three distinct areas represented by the cities of Hanford, Visalia, and Tulare. The District’s Educational Master Plan for 2005-2006 (Appendix A) included anchor programs at each of the District’s campuses: Visalia, Tulare and Hanford.

- **Visalia Campus:** As with each District campus site, the Visalia Campus offers a comprehensive array of liberal arts and science courses on-campus and online that fulfills transfer requirements and/or lead to associate degrees and certificates in a variety of majors.

  Career technical education programs, which are headquartered in Visalia, include: Nursing and Allied Health, Business, and Consumer Family Studies. It is important to note that while some of these programs are primarily housed at the Visalia campus, prerequisites for discipline courses, which are included in the transfer patterns, are also offered at other District sites. In addition to these anchor programs, the Visalia campus has specialized facilities and equipment available to accommodate performances for athletics and the Fine Arts Program which includes theatre and music. Instructional programs in Visalia are complemented by a full-range of student support services, including but not limited to, library resources, matriculation, assessment, counseling, admissions and records, a bookstore, District police, a career and transfer center, disabled student programs and services, equal opportunity programs and services, food services, job placement, outreach, student financial aid services, health services, student activities, and tutorial services.

- **Hanford Educational Center:** For many years the District offered student access in Kings County by offering courses on high school campuses and community centers in Hanford, which is 23 miles from the COS Visalia Campus. In 1992, the District leased a facility to establish the Hanford Educational Center. In 2001, the City of Hanford, Hanford Joint Union High School, and the District entered into a tenants-in-common agreement to purchase 180 acres on 13th Avenue with plans to build a new high school, a permanent COS Hanford Educational Center and a sports complex. (Appendix B)
In 2006, the residents of Hanford approved Measure C, a $22 million general obligation bond, to build a permanent educational center in Hanford. This bond enabled COS to construct and equip the campus which includes the Education Building, the Public Safety Building, and upgrades to the chemistry lab on the Sierra Pacific High School campus in order to leverage expenditures and create a joint use facility. Since the Industrial Maintenance Certificate Program was identified as an anchor program, the City of Hanford and COS were successful in an Economic Development Agency Grant which contributed more than half of the funding for the Vocational Educational Building which provides instructional space for CTE programs such as the Industrial Maintenance program and the Electrician Training Program. The total instructional and administrative square feet which is included for the Hanford campus is 55,891 square feet. (Appendix C) The facility opened in fall 2010. (Appendix D)

Today, the COS Hanford Educational Center offers basic skills and general education courses in addition to signature career technical education programs, the Tulare/Kings Regional Public Safety Training Center. The Tulare/Kings Regional Public Safety Training Center offers the Commission on Post Officer Standard and Training Basic Police Academy certificate; the fire course associated with the Associates of Science Fire Program, a firefighter academy, and advanced officer training for peace officers and firefighters. (Appendix E)

COS Hanford Educational Center students have access to a full complement of student support services, including but not limited to, library resources, matriculation, assessment, counseling, admissions and records, a bookstore, District police, a career and transfer center, disabled student programs and services, equal opportunity programs and services, food services, job placement, outreach, student financial aid services, health services, student activities, and tutorial services. These services are provided by personnel permanently assigned to this site or by personnel who rotate among the three District sites. (Appendix F)

- **Tulare College Center**: Similar to the evolution of Hanford Educational Center, for many years prior to establishing a center in Tulare, COS expanded student access across the District by offering courses in high schools and community centers in this city, which is eight miles from the Visalia campus. In addition, the District operated a student farm on a property located at Linwood and Walnut. What had been on the outskirts of town when built, had eventually landed within city limits and not an ideal place for agriculture education, without any ability to grow. In 1998, the District purchased the 500 acre site in Tulare to house the center for Agriculture Science and Technology and provide general education courses to the residents of the southern Tulare County.

The COS Tulare College Center opened in January 2013 and is adjacent to Mission Oak High School. The facility currently includes over 90,000 square feet of classrooms; laboratory space with a 12,000 square foot welding and construction shop; and extensive equine, livestock, farm, and horticulture facilities. These laboratories provide students with unique opportunities for hands-on experiences related to their chosen agricultural program.
Today, the Tulare College Center offers basic skills and general education courses in addition to a number of signature career technical education programs related to agriculture and industrial technology.

**Educational Purpose**

Industry and Technology education remains a high priority for the College of the Sequoias. New facilities and technology are essential to keep the programs relevant to changing industry needs for a skilled workforce in Industry and Technology. The Sequoias Community College District is in the center of the one largest agriculture producing areas in the world and the agriculture and industrial technology program supports the industry with the qualified, trained employees.

The Industrial Maintenance Certificate Program at the Hanford Educational Center is a duplication of the program at the Visalia Campus. However, as the Visalia program consistently has a waiting list for students and a consistent student and employer demand, the Hanford Center program allows the District to provide the comprehensive program to Kings County where there is also a plethora of employers who require the skills of a trained maintenance mechanic. Discussions with the local construction and building community confirm the need for local employees as well as employer needs for the Electrician Training Certificate program. As with the Industrial Maintenance program, there is high student demand for the Electrician Training program from various locations within the District. Thus, having multiple locations is important to provide opportunities to all prospective students.

**Discussion of the Rationale for the Change**

As stated above, the Industrial Maintenance Certificate Program was identified as a need through an internal and external scan when preparing the 2005-2015 Educational Master Plan. In addition, through the vision of officials within the District, the City of Hanford, and the Kings County Economic Development Corporation, a federal grant was obtained to build a vocational building. This building is located on the College of Sequoias Hanford Educational Center campus specifically to house programs such as the Industrial Maintenance Certificate Program. As such, the program was included as a planned program in the Substantive Change Proposal for the Hanford Educational Center in October 2010. The program’s plan was fully implemented in fall 2013 when a full-time faculty member was hired to teach the Industrial Maintenance curriculum. Courses in the Electrician Training program were made available at the Hanford Center in fall 2010. With the beginning of the fall 2012 semester, the full slate of courses for the Electrician Training program were available at the Hanford Center. The rationale for this change is to meet the growing demand for the courses in all parts of the District. The growing demand is based on a law passed in January 2007 which requires that persons performing work as an electrician under a C-10 licensed contractor be certified pursuant to certification standards established by the Division of Labor Standards Enforcement. Individuals without certification can register as an electrician trainee and continue to work under constant supervision of a certified electrician while being enrolled in a certified class provided by a certified training institution. The COS Electrician Training program became a certified training institution under the Department of Apprenticeship Standards in November 2006 and the District began offering courses in January 2007. The demand for both programs continues in all parts of the District, including Kings County.
Description of Proposed Change

The purpose of this Substantive Change Proposal is to add an additional location for two programs at the Hanford Center in order to better serve students and the community: the Industrial Maintenance Certificate program and Electrician Training Certificate program. The geographic distance between the Visalia campus and the Hanford campus is over 20 miles. Both programs were only offered at the District’s Visalia campus, but because of student and industry demand, as indicated by the student waitlists on the Visalia campus and the number of requests for information and classes received through the Dean’s office, the programs have been expanded to the Hanford Center.

Description of Program to Be Offered

The Industrial Maintenance Certificate and Electrician Training Certificate programs will be offered at an additional location on the Hanford campus. (Appendix G) First, the Industrial Maintenance Certificate program prepares students for entry-level employment in the fields of industrial maintenance, industrial machine operation, industrial electrician, corrections facilities maintenance, hospital engineer, and food service machine technicians. Students completing this certificate will acquire employment skills in the area of electricity, motor controls and programmable motor drives, programmable logic controllers, hydraulics/pneumatics, industrial mechanics, machining, refrigeration and boilers, and welding.

The Industrial Maintenance Certificate program outcomes are to:

- Identify, design, and troubleshoot an industrial electrical circuit with a multi-meter to industrial standards.
- Read a print, repair and maintain the mechanical components of hydraulic and pneumatic circuits found in industrial machines to like new condition.
- Design, program, and troubleshoot both programmable logic controllers (PLC), and variable frequency drives (VFD). This is accomplished in single phase and three phase circuits.
- Weld in three modes: MIG, STICK, and TIG to industrial maintenance standards.
- Have additional entry level job skills in: machining, boilers, refrigeration, mechanics, motor control, and fabrication

Graduates of this certificate will be prepared for employment in the following fields: industrial maintenance technician, industrial machine operator, industrial electrician, corrections facilities maintenance, hospital engineer, and food service machine technician.

For the certificate offered at the Hanford Educational Center, the program consists of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEC 100</td>
<td>Industrial Maintenance Technology, Opt A</td>
<td>15</td>
</tr>
<tr>
<td>ITEC 101</td>
<td>Industrial Maintenance Technology, Opt A</td>
<td>15</td>
</tr>
</tbody>
</table>
In terms of labor market data, projections from the Employment Development Department indicate that total nonfarm employment in Kings County will grow by 6,200 jobs by 2020. Nearly 55 percent of all projected nonfarm job growth is concentrated in three industry sectors in Kings County with the first being manufacturing. Manufacturing employment is projected to increase by 1,400, as some of the jobs lost during the prior recession are recovered. Looking more deeply into the data, the Industrial Machinery Mechanics (SOC Code 49-9041) will have nearly 650 job openings at a median annual income of $56,907.

Second, the Electrician Training Certificate program prepares students for entry-level employment in the Electrician field. Students completing this certificate will acquire skills in the principles of electricity, circuitry, and power distribution, electrical building and safety codes.

The Electrician Training program outcomes are to:

- Understand and identify materials and methods used in the Electrician’s trade
- Recognize electrical hazards, hand tools, power tools, and understand their use in regards to OSHA regulations.
- Read plans, create a materials list, and demonstrate their skills through a variety of demonstrations.
- Wire motor controls, motors, diagnose electrical malfunctions and hazards of motors.
- Design and install service entrances, above and below grade, and install transformers.
- Successfully complete the electrician journeyman exam.

Graduates of this certificate will be prepared for employment in the following fields: home repair and maintenance, electric contractors, electric service and utility providers.

The certificate offered at the Hanford Educational Center consists of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 200</td>
<td>Introduction to Electrician Training</td>
<td>3</td>
</tr>
<tr>
<td>ET 201</td>
<td>Electrician Training 1</td>
<td>3</td>
</tr>
<tr>
<td>ET 202</td>
<td>Electrician Training 2A</td>
<td>3</td>
</tr>
<tr>
<td>ET 203</td>
<td>Electrician Training 2B</td>
<td>3</td>
</tr>
<tr>
<td>ET 204</td>
<td>Electrician Training 3A</td>
<td>3</td>
</tr>
<tr>
<td>ET 205</td>
<td>Electrician Training 3B</td>
<td>3</td>
</tr>
<tr>
<td>ET 206</td>
<td>Electrician Training 4A</td>
<td>3</td>
</tr>
<tr>
<td>ET 207</td>
<td>Electrician Training 4B</td>
<td>3</td>
</tr>
</tbody>
</table>
The growing demand for the Electrical Training program is based on a law passed in January 2007 which requires that persons performing work as electrician under a C-10 licensed contractor be certified pursuant to certification standards established by the Division of Labor Standards Enforcement. Individuals without certification can register as an electrician trainee and continue to work under constant supervision of a certified electrician while being enrolled in a certified class provided by a certified training institution. This change in law funneled current electrical workers into the required training programs so that they can continue to work. The job opportunities for electricians are in demand in a variety of fields including the construction industry as well as in industrial machinery mechanics which is one of the fastest growing jobs within Kings County.

Integrated Planning at College of the Sequoias

This Substantive Change proposal supports the College of the Sequoias Model for Integrated Planning and depicts how the components of planning link to one another in a cycle of evaluation, development of goals and objectives, resource allocation, plan implementation, and reevaluation. (Appendix H) The District demonstrates institutional effectiveness and practices a cycle of continuous quality improvement through the systematic and routine implementation of specific planning processes. Following the graphic is a narrative explanation of the planning processes summarized in the graphic that starts with the District’s mission.

As shown in the graphic, the analysis of data is central to the College of the Sequoias Model for Integrated Planning and serves as an important tool in each of the District’s planning processes.
Institutional Planning

This Substantive Change proposal supports the District’s mission and the 2005-2015 Educational Master Plan. The population centers for our service area lie in the three distinct areas represented by the cities of Hanford, Visalia and Tulare. Based on an environmental scan of Kings County, part of the District’s rationale for expanding access in Hanford/Kings County was that while the number of high school graduates was increasing, the college going rate was decreasing. By having a permanent Educational Center in Hanford, it allows access to students who would not otherwise have access to a college education.

The first step in preparing the District’s Master Plan (educational and facilities) is an analysis of effectiveness in which the District compares its current status to its mission (internal scans) and an analysis of projected demographics, legislative, and economic changes (external scans). These data, along with other relevant college documents, are used to identify challenges and opportunities. Based on these data, the District developed a long-term Master Plan. Through the process of developing the comprehensive master plan, the District develops District Goals that describe how it intends to address the identified current and anticipated challenges. Through this process, it was determined that a continuing challenge was to provide the technology-related training in demand within the industries in the area, specifically within the broad sector of manufacturing. Data pointed to sufficient employment opportunities within industrial maintenance and electrician training within the District boundaries, and specifically in Kings County, which justified additional cohorts. Furthermore, as technology improvements continue to drive the industry in areas such as automation and robotics, focusing on new laboratories to allow for new technologies provided an added advantage to adding new cohorts and programs within a modern, up-to-date facility.

During the 2005-2015 planning process, the Sequoias Community College District partnered with the City of Hanford to purchase a 180-acre parcel within the city limits in 2001 in order to establish and develop the Hanford Joint Educational Center. The District participated in the joint use project to assure the construction of a permanent Hanford Educational Center. The District used general fund monies to purchase their interest in the property, and the community supported local SFID bond (Measure C), passed in June 2006, to design and fully fund the cost to construct the permanent Hanford Educational Center with no state facilities funding. The substantial support and funding from the local citizens in this portion of the District’s service area provided the permanent Hanford Educational Center.

Program Review, Resource Allocation Process, and Plan Implementation

Institutional Program Review captures unit-level planning for instructional, student service, and administrative units. These Institutional Program Reviews describe how each unit will contribute to the achievement of the District Objectives and includes an analysis of unit-specific data, the identification of strengths and weaknesses, a report on prior year Actions, a link to the assessment of student learning, the development of Actions for the coming year, and the identification of resources, if any, that are needed to support the initiatives. If a District Objective or Action requires funding, the responsible party for that Action includes the funding request through program review and/or through a process that connects to the Strategic Plan. Unit program reviews are completed annually.
Resource Allocation follows the development of the short-term plans. This process ensures that Actions identified in the Strategic Plan and Institutional Program Reviews are funded to the extent possible. In both programs, resources were allocated through the planning process. In the case of the Industrial Maintenance Certificate Program for the COS Hanford Educational Center, the full-time faculty member was all that was needed to complete the requirements for offering the program. The building and equipment was purchased through Measure C funds and the full-time faculty placement for the program went through the program review and resource allocation processes. In the case of Electrician Training, adjunct faculty were allocated through the scheduling process, for inclusion of the program at the Hanford Educational Center.

When faculty, buildings, and equipment were in place, full plan Implementation started and students were recruited for the programs. Through the normal District process, Outcome Assessments occur annually through the documentation and analysis of progress made toward achieving the District Goals. For both certificate programs, faculty participates through the formal Student Learning Outcomes assessments that all District faculty are required to do for continuous quality improvement. These Outcome Assessments are consolidated and documented in the College of the Sequoias Annual Report on the Master Plan. The annual report summarizes the current year’s achievements, analyzes progress toward achievement of the District Goals, and directs the District’s Actions in the coming year.

**Evidence of Human, Administrative, Financial, and Physical Resources Support for the Proposed Change**

**Human Resources**

The Industrial Maintenance Certificate and the Electrician Training program are part of the Industry and Technology Department of the District. All full-time and adjunct faculty positions report to the Division Chair and the Career-Technical Education Dean.

Sequoias Community College District Board Policies in regard to recruitment and hiring were followed for the Industrial Maintenance Faculty member. In addition, the program adheres to all District processes, including participatory governance, academic honesty, and student learning outcomes for academic coursework and clinical affiliations that include objective measurable criteria.

The programs are subject to the same academic and technical support afforded all other programs on campus. The workload policies for the Industrial Maintenance Certificate and Electrician Training program are consistent with other programs system wide and will follow the District Board Policies of academic freedom as well as program, curriculum and course development.

**Administrative Capacity**

The administrative staff is outlined in the organizational chart for the District. The District has sufficient administrative capacity. All administrative personnel meet or exceed the minimum qualifications for the positions they hold. All Industrial Maintenance and Electrician Training faculty members are part of the Industry and Technology Division which is overseen by a Division Chair who reports to the Dean, Career Technical Education. In addition, the Dean,
Career Technical Education and the Provost, Hanford Educational Center work together closely to support the program. (Appendix I)

**Financial Resources**

The program planning and development activities have been used to establish the fiscal resources needed for the operation of the program. The Dean of Career Technical Education, working with the Vice President, Academic Services, calculated the fiscal resources required for full program implementation and identified ongoing funds for the program and support. Expenses will be met through the revenues received from the state reimbursement of the estimated Full Time Equivalent Student and VTEA funding. (Appendix J)

The on-going budget process includes annual program reviews for faculty-identified needs, and other program obligations related to providing appropriate levels of qualified faculty and resources to meet all program objectives.

**Physical Resources**

The program has a classroom and a laboratory of sufficient quality and quantity to provide an environment conducive to effective teaching and learning.

The classrooms identified for both programs are Hanford Vocational Building 106 and 108. The classrooms are smart classrooms that provide a full range of instructional media. The laboratory space allows for a full set up of the equipment needed to present instruction and provide for student practice. (Appendix K) The program has sufficient offices and space for faculty and storage.

**Library and Technology Resources**

The resources of the institutional library system and related learning resource centers are adequate to support the needs and meet the goals of the program. Additionally, the Industrial Maintenance Certificate program in Hanford uses technology such as the Manufacturing Skills Standards Council modules (on-line web resource), which allow students additional course content on Safety, Quality Practices and Manufacturing Production Processes. Both the Hanford Industrial Maintenance Program and Electrical Training program utilize the NCCER curriculum and assessment modules that allow students to earn industry recognized certificates as they complete the various modules embedded in the for-credit curriculum.

In addition to the library and its targeted services, all students may access the tutoring services available on the Hanford campus. These services are available for a variety of areas:

1. Math Tutorial Center: Trained student tutors and math faculty are available for most classes three days a week.

2. Writing Center: Trained student tutors and English faculty are available weekly.

3. Other Drop-in and One-on-One Tutoring: tutoring for multiple subjects, as well as one-on-one tutoring. Students are scheduled with a qualified tutor to meet on a regular basis for free.
The COS Industrial Maintenance Certificate Program and Electrician Training Program utilize technology to support instruction and to increase student-learning opportunities. The program utilizes the following to provide open access and support student learning modalities:

1. Smart Classrooms. A smart classroom is a classroom that has an instructor station equipped with computer and audiovisual equipment, allowing the instructor to teach using a wide variety of media. These include DVD and VHS playback, PowerPoint presentations, and more, all displayed through a data projector.

2. Blackboard Curriculum Management System. This classroom management system allows instructors and students to view on-line information, submit assignments, conduct discussions and provide input, and test. One of the main benefits of this methodology is that it allows explicit direct instructions that can be utilized by students in meeting course objectives.

3. Manufacturing Skills Standards Council (MSSC) on-line learning modules. MSSC consists of five individual certificate modules: Safety; Quality Practices & Measurement; Manufacturing Processes & Production and Maintenance Awareness for which students can earn certification.

**Evidence that the Institution Has Received Internal or External Approvals**

At College of the Sequoias, the Board of Trustees primarily relies upon the faculty for curriculum. The Curriculum Committee, a committee of the Academic Senate, approves all courses. The Committee reports recommendations directly to the Academic Senate. The Vice President, Academic Services recommends courses and programs to the Board of Trustees and Chancellor’s Office for approval. The Certificate of Achievement in Electrician Training was approved at the Chancellor’s Office on January 1, 2007 and is currently awaiting five-year approval. The Industrial Maintenance Certificate was approved at the Chancellor’s Office on September 8, 2014.

**Eligibility and Standards**

1. **Authority**

The Industrial Maintenance and Electrician Training Programs to be offered in Hanford meet all the eligibility requirements, Accrediting Standards, student learning outcomes and other curricular requirements. While plans for a duplication of programs was established in the 2005-2015 Educational Master Plan, we did not fully implement the plan until fall 2013; unfortunately, the District was on Show Cause at the time. Specifically, in fall 2012, the District completed its standard cycle of Accreditation process under the Accrediting Commission for Community and Junior Colleges (ACCJC). In February 2013, the District was placed on Show Cause sanction, which resulted in the submission of this Substantive Change Proposal to be placed on hold until the District successfully responded to the Accreditation requirements.
In November 2013, the District was again visited by an evaluation team representing the ACCJC. The team commended the District and reported that the institution had successfully responded to all recommendations, standards, and eligibility requirements, citing only the need for additional time to complete the annual planning and assessment cycle. On February 10, 2014, College of the Sequoias received its action letter from the Accrediting Commission for Community and Junior Colleges. The Commission had removed COS from “show cause” status and reduced our sanction level to warning for purposes of completing the full cycle of improved processes set forth by the District. (Appendix L)

With the important work of Accreditation response successfully fulfilled, the District has resumed the Substantive Change Proposal for the Industrial Maintenance and Electrician Training Programs offered at the Hanford Educational Center.

2. Mission

College of the Sequoias mission is defined and adopted in Board Policy 1200 and is published in the current Catalog and Schedule of Classes. The mission supports the population served by the District and identifies its commitment to student learning, student support, and student success. (Appendix M)

The mission of the College of the Sequoias Community College District is:

- College of the Sequoias is a comprehensive community college focused on student learning that leads to productive work, lifelong learning and community involvement.
- College of the Sequoias affirms that our mission is to help our diverse student population achieve their transfer and/or occupational objectives and to advance the economic growth and global competitiveness of business and industry within our region.
- College of the Sequoias is committed to supporting students’ mastery of basic skills and to providing programs and services that foster student success personal, educational, and career goals in an environment of academic excellence.

Specifically, the Industrial Maintenance Certificate and the Electrician Training Certificate programs increase student access by enhancing the mission of the District through expansion of career education programs leading to occupational careers to advance economic growth. These new programs at the Hanford Center provide increased access to higher education to the residents of Kings County by offering additional certificate programs fulfilling the mission of the District.

3. Governing Board

The Board of Trustees of the College of the Sequoias consists of five elected representatives from the five geographical wards that comprise the District. The Board of Trustees is the policy making body of the District. The Board of Trustees Policy Manual contains policies, duties, responsibilities, ethical conduct requirements, and structure and operating procedures for the Board. The Board of Trustees is responsible for establishing the policies that ensure the quality and effectiveness of student learning programs and services, and to maintain the financial
stability of the District. Policies are regularly reviewed by our Board to ensure alignment with our District mission.

4. **Chief Executive Officer**

The Superintendent/President of College of the Sequoias is Stan Carrizosa. He was appointed by the Board of Trustees effective July 1, 2012. The Board of Trustees delegates to the Superintendent/President the executive responsibility for administering the policies adopted by the Board and executing all decisions of the Board under the Education Code 70902 and 72400, under Title 5 regulations and Board Policy 1095.

5. **Administrative Capacity**

The administrative staffing is outlined in the organizational charts for the District. The District has sufficient administrative capacity. All administrative personnel meet or exceed the minimum qualifications for the positions they hold. Their preparation and experience is scrutinized through the Management Hiring Policies and Administrative Procedure 7120. ([Appendix N](#))

6. **Operational Status**

The Sequoias Community College District has been in operation since 1926. The District offers courses at the Visalia campus, the Hanford Educational Center, the Tulare College Center, and in various locations throughout the District. In the fall 2014, COS served over 10,000 (unduplicated headcount) students.

7. **Degrees**

College of the Sequoias offers 156 Associate of Arts/Science degree and vocational certificates. The requirements for these degrees and certificates are published in the General Catalog, are available on the District’s website, and are available as “Major Sheets” from the Counseling Division.

8. **Educational Programs**

All certificate and degree programs at the College of the Sequoias are listed in the General Catalog, which includes the Industrial Maintenance Certificate and Electrician Training Certificate programs. These programs have been developed by specific departments and approved by the Curriculum Committee, the Academic Senate, the Board of Trustees, and the State Chancellor’s Office. Each program is in a recognized postsecondary field of study and contains sufficient content and rigor. In addition, each program meets the mission of the District “…to help our diverse student population achieve their transfer and/or occupational objectives and to advance the economic growth and global competitiveness of business and industry within our region.” The District also provides instruction in English and mathematics basic skills and in English as a Second Language. These courses help the District meet its mission “…to supporting students’ mastery of basic skills and to providing programs and services that foster student success.”
9. **Academic Credit**

College of the Sequoias awards credit for coursework using the Carnegie Standard, as defined in Title 5 of the California Education Code, as a minimum. Generally, one unit of academic credit is awarded for one hour of lecture/discussion per week. A minimum of three hours of laboratory per week is equivalent to one unit of credit.

10. **Student Learning and Achievement**

College of the Sequoias develops and assesses student learning outcomes for its courses and programs as part of the Institutional Program Review. Resource allocation is tied to Institutional Program Review. Required analysis of student learning as part of the program review process is designed to lead to continuous quality improvement. In 2010-2011, the District created and staffed a full-time faculty coordinator position to lead curriculum and student outcomes assessment efforts across the entire District.

11. **General Education**

All degree programs at College of the Sequoias require the completion of twenty-two units of general education. At least three units are chosen from each general education area: Written Communication; Oral Communication and Analytical Thinking; Natural Science; Humanities; and Social/Behavioral Science. Nine units are chosen from subject requirements: Information Competency; Dance, Intercollegiate Athletics or Physical Education activity courses; and Health and Wellness. The District General Education and Curriculum Committees are responsible for the approval of courses that meet these requirements. Courses that meet these area requirements are listed in the General Catalog. The General Catalog also includes the District’s philosophy of general education. Distance education courses support students earning their General Education credits by offering alternative modes of delivery that increase student access and success.

12. **Academic Freedom**

The Sequoias Community College District affirms and supports the basic principles of Academic Freedom as enumerated in the Association of American University Professors 1940 Statement of Principles of Academic Freedom, Sections (a), (b), and (c) and as approved by the Academic Senate on April 14, 1999.

   a. Teachers are entitled to full freedom in research and in the publication of the results, subject to the adequate performance of their other academic duties; but research for pecuniary return should be based upon an understanding with the authorities of the institution.

   b. Teachers are entitled to freedom in the classroom in discussing their subject, but they should be careful not to introduce into their teaching controversial matter which has no relation to their subject. Limitations of academic freedom because of religious or other aims of the institution should be clearly stated in writing at the time of appointment.

   c. College and university teachers are citizens, members of a learned profession, and officers of an educational institution. When they speak or write as citizens, they should be free from institutional censorship or discipline, but their special position in the
community imposes special obligations. As scholars and educational officers, they should remember that the public might judge their profession and their institution by their utterances. Hence, they should at all times be accurate, should exercise appropriate restraint, should show respect for the opinions of others, and should make every effort to indicate that they are not speaking for the institution.

These academic freedom principles are exercised and respected through Industrial Maintenance Certificate and Electrician Training programs.

13. Faculty

The District provides adequate full-time and adjunct faculty, along with student services counseling faculty, to ensure that instructional and support services are available to all student enrolling in the programs on the COS Hanford Educational Center campus. Per District policy, all faculty meet the minimum qualifications for employment as outlined in the Hiring Policy. All full-time faculty and their degrees are listed in the General Catalog. Faculty duties and responsibilities are described in the COSTA Master Agreement (distributed to each faculty member and available online). Full time and adjunct faculty for the Industrial Maintenance and Electrician Training programs have all met minimal requirements to teach at COS.

14. Student Services

College of the Sequoias provides a comprehensive set of student services to all students. These services are described in the General Catalog, the Schedule of Classes, and the District’s website. The District, and specifically, the Hanford campus, offers many programs that serve the general student body (Academic Counseling, Financial Aid, Student Health Center), as well as specialized services designed for certain student populations (Disability Resource Center, Extended Opportunity Programs and Services/Cooperative Agencies Resource for Education, Cal WORKS). The student services support student learning and assist students with their matriculation.

15. Admissions

College of the Sequoias’ admissions policy and procedures are clearly outlined in the General Catalog, the Schedule of Classes, and on the District’s website. In general, students must be 18 years or older and have graduated from high school or successfully completed the California High School Proficiency Examination or the General Education Development Test. The District may admit students under 18 years of age if there is evidence that the student will benefit from college level instruction.

16. Information and Learning Resources

College of the Sequoias has a Learning Resource Center on the Hanford campus. This center includes a library, Tutorial services and Computer Commons. The Learning Resource Center (LRC) also provides online access to students for catalog searching, access to online full-text articles and e-books, and access to librarians through the “Ask a Librarian” service.
17. Financial Resources

College of the Sequoias is a publicly funded institution. The majority of the unrestricted financial resources at the District’s disposal are derived from a State mandated revenue limit.

Financial resources arrive in the form of local taxes, student enrollment fees and apportionment from the State. The District has an established budget development process that includes the publication of a Budget Book, which is the Final Budget. The Vice President, Administrative Services, the Senior Management, and the Budget Committee of District Governance Senate are involved in this process.

The District also receives financial resources that are restricted in their use, such as financial aid from the federal government. The District has also been the recipient of numerous State, Federal and privately funded grants. The College of the Sequoias has a COS Foundation that raises funds for use by programs and services.

18. Financial Accountability

COS undergoes an annual external audit. The audit reviews both funds and processes in order to determine compliance with established accounting and reporting standards. The most recent audit, December 2013, noted no material weakness in internal control of financial reporting.

19. Public Information

College of the Sequoias strives to present itself accurately in all of its printed and electronic publications. The General Catalog is published annually and contains all key information students require to enroll and matriculate through the District. There is an extensive review of the Catalog prior to publication to ensure currency and accuracy. The District’s website is updated frequently as needed. The Schedule of Classes is published twice each year online.

20. Relations with the Accrediting Commission

College of the Sequoias is committed to adhering to all ACCJC accreditation Eligibility Requirements and Standards, and to accurately portraying itself to the Commission. The District publishes a general statement of accreditation in its General Catalog.

The Vice President Academic Services has been delegated as the Accreditation Liaison Officer and is responsible for ensuring all necessary reports, documentation and evidence of compliance is provided to ACCJC in a timely fashion. Through the office of the Vice-President, Academic Services, the District has responded to all recommendations and requests for reports from ACCJC. Some programs in the District undergo their own professional accreditation process.
Evidence the Accreditation Standards will be Fulfilled and Policies

College of the Sequoias continually complies with the standards set by the Commission.

Standard I: Institutional Mission and Effectiveness

A. Mission

The people of Kings and Tulare counties are underserved in easy access to higher education compared to most of California’s population. The District mission includes the goal “to help our diverse student population achieve their transfer and, or occupational objectives and to advance the economic growth and global competitiveness of business and industry within our region.” The mission and program goals of the Industrial Maintenance Certificate and Electrician Training programs are congruent with that of the District.

B. Improving Institutional Effectiveness

The Industrial Maintenance Certificate and Electrician Training programs are included in the Institutional Program Review process. The District demonstrates a conscious effort to produce and support student learning, measures that learning, assesses how well learning is occurring, and makes changes to improve student learning. The District also organizes its key processes and allocates its resources to effectively support student learning. The institution demonstrates its effectiveness by providing 1) evidence of the achievement of student learning outcomes and 2) evidence of institution and program performance. The institution uses ongoing and systematic evaluation and planning to refine its key processes and improve student learning.

Through the planning process the District sets goals to improve its effectiveness consistent with its stated purposes. The institution articulates its goals and states the objectives derived from them in measurable terms so that the degree to which they are achieved can be determined and widely discussed. The institutional members understand these goals and work collaboratively toward their achievement.

Specifically, each division conducts the Institutional Program Review process to examine and address division-wide course quality issues, suitability of distance education delivery of curriculum, identification of student interest in and satisfaction with distance education offerings.

Standard II: Student Learning Programs and Services

A. Instructional Programs

In keeping with the District Mission, degrees such as the Industrial Maintenance Certificate and Electrician Training Programs that lead directly to employment are greatly needed for those living in the COS district, which encompasses an immense geographic range with widely scattered communities from Giant Forest in the Sequoia National Park, to Alpaugh and Sultana in the San Joaquin Valley. Many of our students are looking for educational programs that lead to specific job opportunities.
This certificate program has met the standards of the academic divisions. All programs are involved in development, assessment, and analysis of Student Learning Outcomes. Each division/unit conducts a program review annually to examine and address division-wide course quality issues, suitability of delivery of curriculum, identification of student interest in and satisfaction with the certificate program, and student learning. The following data are examined in each program’s annual program review:

- **Student Success Data**
  - Class size
  - Student course completion rates/data
  - Pass rate
  - Student data collection and analysis
  - Use of student data for improvement

- **Quality Assurances**
  - Academic integrity and student authentication
  - Faculty Evaluation
  - Comparison of faculty and student support services
  - Course outcome assessments
  - Integration with institutional mission and strategic planning

### B. Student Support Services

Students have reasonable and adequate access to the range of student services appropriate to support their learning. Student Services information, such as financial aid, admissions and records, and counseling are also available to students online and at the COS Hanford Campus. Students can apply to the college, register, apply for financial aid, contact a counselor, and order transcripts online. The COS catalog is available online. The Learning Resource Center (LRC) also provides online access to students for catalog searching, to online full-text articles and e-books, to librarians through the “Ask a Librarian” service. Online tutoring was available beginning in the fall 2011 semester. We have also established a Student Computer Helpdesk available online and staffed during LRC hours.

The Industrial Maintenance instructor and CTE Dean host an orientation on the first day of class to educate students about the support services available to them on the Hanford campus and career opportunities available to them with a certificate in Industrial Maintenance. As the Industrial Maintenance program is a cohorted program over two semesters, the commitment is significant and the ties with industry are critical. The orientation helps students understand the depth of the program, the realities of the industry and the importance of the commitment. Additionally, through grant funding, students have had access to embedded basic skills instruction and tutoring, case management and resume/career development workshops. The orientation also orients students to basic District, campus, and program policies and procedures.

The Dean of Career Technical Education also conducts an orientation for students enrolled in the first sequence of the ET 200 course. COS is certified to offer courses approved by the Department of Industrial Relations for the Electrical Apprenticeship Program. Most of the students in the ET 200 are working adults employed in the building trades and working toward...
their required hours and education for the required state electrical test. Thus, the Dean and adjunct instructor review the process and paperwork to educate students of the expectations. Student support resources are also covered during this orientation.

C. Library and Learning Support Services

Faculty and students have full access to the library resources, including the technological resources. These resources include:

- Learning Center: this resource is explained on the internet at: www.cos.edu/lrc
- Computer access
- Library classes on research and writing
- Private search engines and Academic Databases
- Academic Electronic Databases
- Research services for faculty and students

Standard III: Resources

A. Human Resources

In terms of human resources, the District has created and filled positions for the programs in Hanford. The programs are overseen by the Division Chair of the Industry and Technology department and ultimately, the Dean of Career Technical Education and the Vice President, Academic Services. Both the Dean and Vice President are full-time administrators whose responsibilities include faculty development and mentoring, developing and guiding faculty to resources to enhance their teaching, supporting education policy development, and providing a course management system (Blackboard) technical and administrative support. The District has assigned a Computer Services technician to support the Blackboard technical management.

All new faculty are able to participate in a comprehensive orientation to the District, including learning about technology. The Faculty Enrichment Committee facilitates multiple professional development opportunities for all faculty, including distance education instructors. A sample of workshop offerings is listed below:

- Reaching the hard-to-reach student: students with learning disabilities
- Blackboard technical training
- Online teaching pedagogy
- Copyright and fair use in the classroom
- Online educational resources
- Using Bloom’s Taxonomy to improve critical thinking
- Teaching with the Multiple Intelligences in Mind
- Universal Design for Learning
- Using your library
B. Physical Resources

The physical resources of the COS Hanford Educational Center for the Industrial Maintenance and Electrician Training programs include classroom and laboratory space. These meet sufficient quality and quantity to provide an environment conducive to effective teaching and learning. As noted previously, the classroom is a smart classroom that provides a full-range of instructional media. In addition to the classroom, the students and faculty of the program have access to the computer lab as needed. This Industrial Maintenance laboratory is fully equipped with a complement of equipment to serve the needed hands-on learning for the students in both Industrial Maintenance and Electrical Training. The laboratory consists of five welding machines, electrical trainers, motor controllers, hydraulic trainers, and Programmable Logic Controllers for advanced classes.

The Industrial Maintenance program’s faculty member has an assigned office space in the Hanford Vocational Building. The office is completely furnished and provides a computer and is available for meeting space for student conferences and program material. There is office space available for adjunct Electrician Training faculty.

C. Technology Resources

Technology for instructional purposes is easily accessible and is of sufficient quantity and quality to meet the needs of the program.

Both the Industrial Maintenance Certificate and Electrician Training Certificate programs utilize technology to support instruction and to increase student learning opportunities. The program utilizes the following to provide open access and to support student learning modalities:

1. Smart Classrooms. A smart classroom is a classroom that has an instructor station equipped with computer and audiovisual equipment, allowing the instructor to teach using a wide variety of media. These include DVD and VHS playback, PowerPoint presentations, and more, all displayed through a data projector.

2. Manufacturing Skills Standards Council (MSSC) on-line learning modules. MSSC consists of five individual certificate modules: Safety; Quality Practices & Measurement; Manufacturing Processes & Production and Maintenance Awareness for which students can earn certification.

3. Blackboard Curriculum Management System. This classroom management system allows instructors and students to view on-line information, submit assignments, conduct discussions and give input, and test. One of the main benefits of this methodology is that it allows explicit direct instructions which can be best utilized by students in meeting course objectives.

D. Financial Resources

College of the Sequoias is a publicly funded institution. The majority of the unrestricted financial, resources at the District’s disposal are derived from a State mandated revenue limit.
Financial resources come from local taxes, student enrollment fees and an apportionment from the State. The District has an established budget development process that includes the publication of a Budget Book, which is the Final Budget. The Vice President of Administrative Services, the Senior Management and the Budget Committee are involved in this process.

The District also receives financial resources that are restricted in their use, such as financial aid from the federal government. The District has also been the recipient of numerous State, Federal and privately funded grants. The College of the Sequoias has a Foundation that raises funds to support District programs and services.

**Standard IV: Leadership and Governance**

**A. Decision-Making Roles and Processes**

The District’s participatory governance process includes faculty, staff, administration, and students.

**B. Board and Administrative Organization**

The Dean, Career Technical Education serves on the Deans’ Council, Management Council, and Instructional Council. Ultimately, this position reports to the Vice President, Academic Services who is a member of Senior Management and several other committees, councils, and the District Governance Senate.

**Monitoring Desired Outcomes**

Assessment is part of a systematic and formal approach to continuous improvement. These programs have an ongoing process in place to determine the effectiveness of the program that includes, but is not limited to, the following:

The Division of Industry & Technology is committed to a process of continual improvement for all aspects of the program. The process of continual improvement is adopted with the intent that the division provides an effective education program that prepares students to function in entry level positions within the industry as Industrial Maintenance Mechanics, Production Technicians or Electrician Trainees, as defined by the Division of Labor Standards Enforcement.

Continuous improvement in the COS Industrial Maintenance and Electrician Training programs is therefore the result of evidence-based decision making based on objective information derived from regular data collection that occurs through multiple sources, and in a variety of methods. The information collected and assessed is designed to establish on-going validity, or opportunities to improve the program philosophy, mission, goals, objectives, and student learning. Students within both the Industrial Maintenance and Electrician Programs are assessed using a third-party system established by the NCCER (National Center for Construction Education and Research). Students can earn portable, industry-recognized certificates through NCCER if they are able to complete the required written and laboratory assessments as documented by their instructor. Furthermore, the faculty members assess the Student Learning Outcomes of the class each semester to ensure the students’ learning are matching the desired outcomes. For instance, Ohm’s Law is a foundational piece for building on any electrical training
for industrial situations or within residential building. The SLO for Ohm’s Law is an example of a critical measure for students to successful progress in either class.

The assessment component of the COS Industrial Maintenance Certificate program provides both formative and summative information across all skills needed within a manufacturing setting. This includes administration, curriculum, faculty, learning experiences, and student success. Appendix O provides an overview of the assessment procedures of the Industrial Maintenance Certificate program and assessment procedures of the Electrician Training Certificate program.

For each section listed below, baselines and indicators were selected that are relevant to the program, easily measured, reliable, and understood by a wide-range of staff, faculty, students, partners and stakeholders. Additional indicators were selected to reveal information regarding the economic ramifications, environmental conditions, health, safety, well-being and education of the students, as well as organizational factors. These indicators are listed on the assessment instruments.

**Program Assessment**

The assessment component of the Industrial Maintenance Certificate program provides both formative and summative information across all aspects of skills needed within a manufacturing setting. This includes administration, curriculum, faculty, learning experiences, and student success.

The Electrical Training program uses the NCCER (National Center for Construction Education and Research) curriculum, which has specific assessments mandated within the curriculum. All instructors are NCCER certified trainers and have received training on the correct use of the assessments. The coursework is divided up into modules and each student must pass a standard written and practical module to meet the basic requirements for certification by NCCER. This process ensures the content at both the Visalia and Hanford sites are consistent and gives students an opportunity to earn an industry based certificate after each module as well as work toward their COS certificate. The student learning outcomes for each class are drawn from the NCCER assessments and faculty assesses the SLOs each time the course is offered.

The completion of these outcomes is measured yearly by the following statistics:

**Electrician Training Certificate**

- Read plans, create a materials list, and demonstrate their skills through a variety of demonstrations.
- Successfully complete the electrician journeymen exam.
- Understand and identify materials and methods used in the Electrician’s trade.
- Wire motor controls, motors, diagnose electrical malfunctions and hazards of motors.
- Recognize electrical hazards, hand tools, power tools, and understand their use in regards to OSHA regulations.
- Design and install service entrances, above and below grade, and install transformers.
Industrial Maintenance

- Upon completion of this program the student will have achieved entry level skills in the areas of power transmission and distribution, refrigeration, boilers, and building electricity. All aspects include troubleshooting and repair.
- Upon completion of this program the student will have entry level industrial maintenance job skills in the areas of electricity to include: basic electricity, transformers, relays, and wiring. The student will learn troubleshooting and repair skills.
- Upon completion of this program the student will be competent in the design and repair of industrial electricity to include motor controls, variable frequency drives, programmable logic controllers, and instrumentation.
- Upon completion of this program the student will have entry level industrial maintenance job skills in mechanical areas to include industrial mechanics, basic machining operations, and fluid power.
- Upon completion of this program the student will have entry level skills in welding to include MIG, Stick, and TIG welding.

Student Learning Outcomes

College of the Sequoias is focused on student learning that leads to productive work, lifelong learning and community involvement. In order to help our diverse student population achieve their educational and occupational goals, faculty and staff focus on the learning outcomes of our work. By researching variations in success, we adjust teaching strategies to improve student learning.

District-wide meetings have been dedicated to dialogue and implementation of SLOs for courses, and programs and at the institutional level. SLOs apply to all students regardless of the campus/site in which they enroll.

The Curriculum Committee, with support from faculty and division chairs, reviews all course outlines and makes curriculum recommendations to the Board of Trustees regardless of location or delivery mode. Course content, objectives, methods of evaluation and SLOs apply to all courses. The Curriculum Committee manages the curriculum development and approval process through the CurricuNet online system. (Appendix P)