Modesto Junior College
Application to Participate in
California Community Colleges
Baccalaureate Degree Pilot Program

Respiratory Care

December 18, 2014
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The profession of respiratory care began over half a century ago and has evolved from an on-the-job trained workforce to a college educated and licensed profession. In this era, respiratory care practitioners are expected to assess and quantify their patient’s conditions while appropriately applying algorithmic protocols in the provision of respiratory care. Critical thinking, decision-making, and competence to perform these responsibilities are demanded of practitioners at an advanced level. The changing healthcare environment has placed emphasis upon prevention and management outside the hospital which increases the need for more respiratory care practitioners qualified to serve as patient educators. Modesto Junior College’s baccalaureate in Respiratory Care program will also prepare leaders, who are able to plan, develop, and deliver high quality, cost-effective health care services.

The proposed baccalaureate program will be comprised of two programs. The first section or two year section will be the traditional Respiratory Care program preparing the graduates for the Registered Respiratory Therapy (RRT) exam and subsequent licensure by the Respiratory Care Board of California. The students completing this section will receive an Associate of Science degree and be able to enter the workforce as licensed respiratory care practitioners. The ability of these students to work in their career field while pursuing their baccalaureate degree will bring increased relevance to their studies.

The second section is the proposed baccalaureate degree in Respiratory Care which will build upon the depth of understanding in key areas of the field and expand the scope of the education of the student. The second section will include curriculum in research, education, management, and supervision. The second section of the program will also include additional education in higher levels of clinical practice such as adult critical care, pediatric critical care, neonatal critical care, pulmonary function technology, cardiopulmonary diagnostics, polysomnography, and other key clinical areas, as needed in the community.

Modesto Junior College (MJC) is located in the northern part of the California’s Central Valley. Established in 1921, MJC is one of California’s oldest community colleges and is one of two colleges in the Yosemite Community College District. The District serves five counties – Stanislaus, Calaveras, Tuolumne, Merced, and San Joaquin Counties. MJC serves 22,000 unique students which generate approximately 15,000 full-time equivalent (FTES) annually, and provides more than 3,000 instructional sections. The student population at MJC is diverse, with ethnic minorities comprising 60% of the population.

Modesto is located in the Central Valley, a geographically and demographically diverse region, with a total population over 4.3 million. Approximately 45% of the Valley’s population is Hispanic. Educational attainment, as measured by the number of higher education degrees, is remarkably low in the Central Valley compared to the state average.

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1 Source: All student data provided by the Office of Research, Modesto junior College using CCCCCO Data Mart
2 Source: US Census Bureau
particularly for Bachelor’s Degree. In the Central Valley, 11% of the population age 25 or over has a Bachelor's Degree, while the statewide average is 19%.

<table>
<thead>
<tr>
<th>Modesto Junior College Student Ethnicity</th>
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<tbody>
<tr>
<td>African American</td>
<td>3.8%</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>0.7%</td>
</tr>
<tr>
<td>Asian</td>
<td>5.4%</td>
</tr>
<tr>
<td>Filipino</td>
<td>1.1%</td>
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<tr>
<td>Hispanic</td>
<td>40.1%</td>
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<tr>
<td>Pacific Islander</td>
<td>1.0%</td>
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<tr>
<td>White</td>
<td>38.5%</td>
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<tr>
<td>Two or more Races</td>
<td>3.5%</td>
</tr>
<tr>
<td>Unknown</td>
<td>5.8%</td>
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</table>

Modesto Junior College primarily serves the Stanislaus County region. Stanislaus County suffers from what has been termed an exodus of the best and brightest. The top high school graduates leave to attend university and never return. The Stanislaus Economic Development and Workforce Alliance is challenged to recruit new businesses to the area because of the low numbers of individuals with bachelor’s degrees or higher in the county workforce. Increasing higher education opportunities in the immediate greater Modesto area is an identified strategic need of the county.

The Stanislaus County community has expressed great interest in the baccalaureate degree opportunity for Modesto Junior College. When the door opened to expanded degree options through the pilot baccalaureate degree program MJC immediately received an influx of inquiries regarding the possibility of a baccalaureate degree on our campus. The opportunity to provide a baccalaureate degree program in Respiratory Care is an incredible fit given the air quality issues that have become a trademark of the Central Valley. Further, the incidence of asthma and related respiratory disease associated with the air quality heightens the need for the advanced level of care that can be provided by practitioners that hold a Bachelor of Science degree in Respiratory Care with the region served by Modesto Junior College.

Healthcare reform has impacted California’s workforce, and particularly impacted the labor market demand for trained healthcare workers in the Central Valley. Prior to healthcare reform, more than 1 million residents in the Valley were uninsured. As these residents obtain coverage and participate in preventative care services, the need for qualified healthcare workers in the Valley will drastically increase. The Central Valley historically has a pronounced need for respiratory care practitioners due to air quality issues in the region. Currently, 10% of the state's respiratory care practitioners are

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3 Source: Economic Modeling Specialists, Inc.
4 Source: Health Access, http://www.health-access.org/files/expanding/Central%20Valley%20Healthier%20Reform%209-17-09.pdf
located in the Valley, compared to 8% of the state’s registered nurses located in the Valley\textsuperscript{5}.

Students completing MJC’s Respiratory Care program will be able to work in a wide variety of facilities, including acute care hospitals, durable medical equipment companies, sub-acute facilities, home care agencies, physician’s offices, managed care organizations, sleep labs, and pulmonary function labs. According to the Bureau of Labor Statistics, respiratory care practitioners are projected to increase 28% in the next six years. California has a particularly high vacancy rate for respiratory care practitioners, largely because there are few State accredited education programs. Additionally, the existing respiratory care workforce in California has a large percentage of workers nearing retirement age. In 2013, 47% of respiratory care practitioners were in the 45-64 age group, meaning there will be a substantial number of replacement jobs for this occupation in the next 5 years.

<table>
<thead>
<tr>
<th>Labor Market Demand</th>
<th>Respiratory Care practitioners</th>
</tr>
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<tbody>
<tr>
<td>Geographic Area</td>
<td>Current # of Jobs</td>
</tr>
<tr>
<td>Central Valley</td>
<td>1,359</td>
</tr>
<tr>
<td>California</td>
<td>14,964</td>
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</table>

In the Central Valley, there are currently two community colleges with state-approved Respiratory Care programs: MJC and Fresno City College. Collectively, these two institutions have an average of 35 annual completions for 42 job openings, resulting in an unmet workforce need for respiratory care practitioners. There are no providers in the region with Bachelor’s Degree programs. Statewide, there are 18 community colleges with RT programs and two private universities with Bachelor’s Degree programs (Loma Linda University and California College, San Diego). There are no California State University or University of California campuses with a bachelor’s program in Respiratory Therapy\textsuperscript{6}.

The Respiratory Care program at Modesto Junior College was developed to meet the need and demand for respiratory care practitioners in the community and the program’s skilled graduates occupy positions within the region’s healthcare facilities that range from management to education. The program is strongly supported by the healthcare facilities in the area. Positive feedback has been received from hospital administrators and respiratory care department managers and they have relayed their support for a baccalaureate program that will provide practitioners with a higher level of education. They believe the development of a robust baccalaureate level curriculum focused on progressing the respiratory care profession will make a significant contribution to the healthcare facilities and will positively affect the future of respiratory care for a diverse population.

\textsuperscript{5} Source: Center of Excellence using EMSI data
\textsuperscript{6} Source: All educational program data obtained from IPEDS
range of patients. Students and former graduates have conveyed strong interest in returning to Modesto Junior College and achieving a BSRT that will allow them to be more competitive and marketable within the field of respiratory care. They welcome the opportunity to broaden their knowledge in cardiopulmonary healthcare and to develop fundamental skills in leadership, research, and education.

Respiratory care practitioners play an important role in delivering quality healthcare to patients in multiple settings. Full-time respiratory care practitioners on staff significantly improve health outcomes such as shorter lengths of hospital stays, fewer days on the ventilators, as well as lower intensive care costs. Equipping respiratory care practitioners with a higher level of critical thinking and training within an agricultural region where chronic obstructive lung disease is prevalent will significantly impact and contribute to the health of the community.

The increasing prevalence of chronic obstructive pulmonary disease (COPD) within the state of California enhances the need for highly educated and skilled professionals within the field of respiratory care. Chronic bronchitis, emphysema, and asthma have become the fourth leading cause of death. Education, management, and maintenance of this disease process are necessary for improving health outcomes for patients suffering from this disease. The air quality of the central valley has become one of the major contributing factors to the increasing incidence of lung disease and rising hospital costs. Individuals with chronic obstructive lung disease are at greater risk for respiratory infections, thus proving the need for education and management. In 2006, California’s Office of Statewide Health Planning and Development (OSHPD) reported 46,407 hospital discharges associated with COPD, amounting to an estimated $1.34 billion in medical costs\(^7\). The rates of pediatric diagnosed asthma and reactive airway disease within San Joaquin and Stanislaus counties have increased due to high ozone and particulate matter levels in the air\(^8\). The need for respiratory care practitioners is warranted to meet the demands for educating and managing individuals diagnosed with chronic lung diseases.

Amplified education can only improve the ability of respiratory therapist to contribute to the cardiopulmonary health of community members within the central valley. The associate degree programs have been the foundation for the respiratory care profession and they have done an excellent job in providing the initial training. There is, however, an increasing need for respiratory care practitioners with advanced credentials and education who can take on leadership roles, including research, education, management, as well as advanced clinical diagnostic skills.

\(^7\) Source: American Lung Association, 2010
\(^8\) Source: American Lung Association, 2013
Response to the Need

The Respiratory Care program at Modesto Junior College began in 1983 as a one-year technical course and has evolved into a two-year Associate Degree program. Each year 90-100 candidates apply for entry into the program which enrolls 25 students each January. Annually, 40-50 students are enrolled in the first and second year of the Respiratory Care program. Since its inception, Modesto Junior College’s Respiratory Care program has graduated over 420 students. Each year the program meets the threshold standards required by the Commission on Accreditation for Respiratory Care (CoARC). The graduates of the Respiratory Care program have exceeded the minimal threshold standards for successful completion and on-time graduation from the Respiratory Care program and passing the entry level Certified Respiratory Care Exam. These students have successfully transitioned into the practice of respiratory care through positive placement into Central Valley area medical centers, hospitals, long-term care, and home health care facilities.

The program is supported clinically by eight surrounding area health care facilities:

1. Memorial Medical Center, Modesto, California
2. Doctor’s Medical Center, Modesto, California
3. Emanuel Medical Center, Turlock, California
4. Mercy Medical Center, Merced, California
5. Oak Valley Hospital, Oakdale, California
6. Sonora Regional Medical Center, Sonora, California
7. St. Joseph’s Medical Center, Stockton, California
8. Sutter Tracy Community Hospital, Tracy, California

Each facility provides a representative who is actively involved with the program’s success through service on the Respiratory Care Advisory Committee. The committee regularly meets to provide feedback on program goals, objectives, and future demands for graduate skill and competence.

A baccalaureate degree program in Respiratory Care at Modesto Junior College is supported by the members of the advisory committee and they have communicated their commitment to assisting in the clinical educational experience for students enrolled in the program.

The proposed baccalaureate program in Respiratory Care will provide an advanced practitioner degree for professionals possessing an Associate degree in Respiratory Care. Students enrolled in the Associate of Science degree program will be given consideration and access to the baccalaureate degree Respiratory Care program. Post professional practitioners possessing an associate degree from a CoARC accredited
programs and who reside within the Stanislaus county community as well as outlying counties will be afforded access to the proposed baccalaureate degree program.

The proposed program is comprised of two sections. The first section is currently a well-attended and accredited program in Respiratory Care available to all qualified students in our community. The first section prepares students to be licensed and work in the field of Respiratory Care as well as supply the educational basis for the second section pathway to a bachelor’s degree. The second section will be in great demand as the need for baccalaureate prepared Respiratory Care Practitioners increases. Over many years, the healthcare industry’s demand for bachelor’s degree prepared nurses increased in this same predictable way. Applicants for the second section will come from the current cohort of Respiratory Care students. Consideration will also be given to students who have graduated from the first section of our two-year Respiratory Care program in years past.

The baccalaureate program in Respiratory Care is projected to enroll twenty four students each year. These students will have an Associate’s degree in Respiratory Care from a CoARC accredited program and appropriate upper division general education courses. One hundred twenty graduates from five cohorts are the anticipated number of students to graduate from the baccalaureate program over five years.

Exploration of IPEDS data revealed that there are no baccalaureate degree Respiratory Care programs offered at the CSU or UC. Two private institutions, Loma Linda University and California College, San Diego, offer bachelor’s degrees in Respiratory Care in Southern California.

Respiratory Care faculty have diligently reviewed the curriculum proposal for the baccalaureate degree. Faculty have engaged in thorough consideration and thoughtful dialogue about the development of upper division general education courses to support the awarding of a baccalaureate degree. Modesto Junior College is poised and prepared to develop upper division general education courses in accordance with expectations of the California Community Colleges Chancellor’s Office and in consultation with the Academic Senate of California Community Colleges.

The upper division curriculum leading to a baccalaureate degree in Respiratory Care will include a sequence of professional course work intended to prepare respiratory care practitioners for leadership positions, education, management, and advanced clinical practice. Students will be required to successfully complete courses which include emphasis on ethics in medicine, advanced diagnostic procedures and techniques, advanced pathology and cardiopulmonary diseases, seminars in leadership, advanced patient assessment, and advanced perinatal and pediatric respiratory care. Students will also be expected to complete upper division general education courses required for a Bachelor of Science degree. A timeline for program planning, implementation, requisite accreditation approval, and degree completion continues on the next page.
<table>
<thead>
<tr>
<th>ACTION</th>
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<tr>
<td>Deadline for submitting applications to CCCCO</td>
<td>December 19, 2014</td>
</tr>
<tr>
<td>Notification of selected pilot programs</td>
<td>January 21, 2015</td>
</tr>
<tr>
<td>Begin curriculum design and local review phase</td>
<td>February 2015</td>
</tr>
<tr>
<td>Collect program data and submit biannual progress report</td>
<td>Every September 30, 2015 through 2022</td>
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<tr>
<td>Conclude local curriculum phase and submit curriculum to CCCCO</td>
<td>November 2015</td>
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<tr>
<td>Submit substantive change proposal to Commission on Accreditation for Respiratory Care (CoARC) and ACCJC</td>
<td>November 2015</td>
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<tr>
<td>Recruitment of clinical instructors</td>
<td>January to March 2016</td>
</tr>
<tr>
<td>Collect program data and submit biannual progress report</td>
<td>Every March 31, 2016 through 2023</td>
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<tr>
<td>Application period</td>
<td>Every August to November, 2016 through 2020</td>
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<tr>
<td>Admit cohort</td>
<td>Every January, 2017 through 2021</td>
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<tr>
<td>Graduate cohort</td>
<td>Every December, 2018 through 2022</td>
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<tr>
<td>Pilot Baccalaureate Program Ends</td>
<td>June 30, 2023</td>
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<tr>
<td>Pilot Program Participant Final Report Due</td>
<td>August 31, 2023</td>
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Program Management/Institutional Commitment

Modesto Junior College is accredited by the Accrediting Commission for Community and Junior Colleges (ACCJC). In October 2011 MJC submitted a self-evaluation followed by a comprehensive external team evaluation. As a result of the evaluation visit, the Commission required the college to submit a special report, two follow-up reports, and two additional site visits to ensure that the recommendations of the Commission were fully met. This effort resulted in the removal of sanction and restoration of fully accredited status without sanction in January 2014. The college submitted a midterm report to ACCJC in October 2014 as part of the regular cycle of evaluation for accreditation. The college will undergo the next comprehensive evaluation visit in fall 2017.

The Respiratory Care program at Modesto Junior College is accredited by the Commission on Accreditation for Respiratory Care (CoARC). The next comprehensive evaluation of the Respiratory Care program, including an on-site review, is scheduled to occur no later than March 31, 2020.

The Yosemite Community College District demonstrates sound fiscal responsibility as evidenced by unmodified external audits opinions. The unmodified audit opinion reads as follows, “In our opinion the financial statements present fairly, in all material respects, the respective financial position of the business-type activities and the fiduciary activities of Yosemite Community College District, as of June 30, 2014, and the respective changes in its financial position and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.” The auditors also noted no material corrected or uncorrected misstatements to the financial statements. Further, the district demonstrates fiscal prudence by maintaining a reserve of 10% of unrestricted General Fund budgeted expenditures as delineated in YCCD Board policy.

The Modesto Junior College Allied Health Division coordinates exemplary associate degree programs: Nursing, Certified Medical Assisting, and Respiratory Care, in addition to a Certificate in Certified Nurse Assisting and Home Health Aid. Allied Health partners with Community Education to offer Phlebotomy and Pharmacy Technician certifications. In 2013-2014, Allied Health partnered with West Hills College Coalinga in a distance education Workforce Training collaborative to bring Psychiatric Technician certification to the Modesto region. For more than twenty years, the Nursing Program has offered a one-of-a-kind distance education program in cooperation with Columbia College.

Modesto Junior College is well suited for the baccalaureate in Respiratory Care because its associate-level program is established with a long history of success. The Associate Degree Respiratory Care Program consists of 72.5 units that prepare students to sit for the State Board Respiratory Care Practitioner Exam. The program is
accredited by the Commission on Accreditation for Respiratory Care. Graduates are eligible for both Certification and Registration administered by the National Board for Respiratory Care. A cohort of twenty-four students commences every year in January and graduates two years later in December. Demand for admission is consistent with 100 applications regularly submitted for each application period; a weighted lottery system is used to determine admission among those applicants that have successfully completed all prerequisites. For 2013, the program's on-time graduation rate is 98%; job placement rate is 72%; student success rate and retention rate is 98% in courses overall.
Identified Resources

Modesto Junior College is committed to providing the funding and other resources to develop, implement, and deliver the proposed baccalaureate degree program in Respiratory Care. The Allied Health Division at MJC includes an experienced Dean and Respiratory Care Program Director with the professional credentials and leadership necessary to support the development of an expanded offering in Respiratory Care. The Respiratory Care faculty and administration have existing relationships with area health care facilities including hospitals, long term care facilities, and home health care providers. Resources have been identified to support curriculum development and professional development activities for Respiratory Care faculty including travel.

As illustrated in the organization chart, Yosemite Community College District possesses the human resources to initiate and support the baccalaureate degree in respiratory care. The Dean of Allied Health and Family and Consumer Sciences is a certificated administrator with six years’ experience supervising academic programs. The Respiratory Care department has institutionalized two full-time tenure track professors of Respiratory Care, one serving as Program Director and the other serving as Director of Clinical Education. In partnership with the dean, the professors supervise four adjunct clinical instructors. The college community has been made aware of the need for an additional full-time instructor upon the commencement of the baccalaureate program, and adjunct clinical instructor staffing will be expanded. Support for educational technology is strong and well established as evidenced by the existence of two full-time classified staff dedicated to technology in Allied Health. Administrative support staffing is adequate to support the programs, and recruitment for an administrative specialist who will in part support the baccalaureate program is underway at the time of writing this application. Support staff are experienced in the critical functions of student support such as application procedures, background and health clearances, and clinical site placement in Allied Health programs, evidenced by the successful history of various other programs in the division.

In 2011, Modesto Junior College opened a new Allied Health building, Glacier Hall, which offers up-to-date classroom and laboratory environments. The new building is a new experiential learning environment and teaching facility focused on health care programs. Modesto Junior College’s Allied Health division has an extensive array of facilities and instructional technology readily available. The Human Patient Simulation Laboratory (HPSL) is one of the finest, state of the art patient care simulation labs in the state. This center allows students to learn important skills through the use of simulation mannequins and then review their own efforts via an advanced audio visual system. The HPSL is based on the design of a hospital intensive care unit (ICU). Wireless mannequins simulate real patients at various ages. This allows the student to gain detailed emulated experience prior to walking into an actual hospital room. After their session, the student is able to review their recorded performance in the privacy of a debriefing room. The HPSL coordinates with MJC Registered Nursing, MJC Respiratory Care, and local primary care medical residency programs offering a collaborative approach to healthcare.
The Allied Health dedicated computer lab is another resource which will be instrumental for use by the students in the proposed baccalaureate program. The lecture halls and labs have improved technology resources which provide enhanced audio, video and distance learning options. The lecture halls are equipped with advanced audio visual systems enabling students in the back rows to be able to view the teachers’ demonstrations up close with the use of cameras and large LCD screens. Further, the cameras provide a real time viewing experience from the satellite programs at other college sites.

Careful review and analysis of the proposed funding structure and existing college budget, staffing, and facilities, revealed that Modesto Junior College has the necessary human, physical, technology, and fiscal resources to support the development and implementation of a baccalaureate degree in Respiratory Care.
Appendix A

By Submission of their application, the District/College agrees to abide by the terms and conditions set forth in the Application to Participate in the California Community College Baccalaureate Degree Pilot Program and the District/College application.

Application Signature Page

Yosemite Community College District
Modesto Junior College
435 College Avenue
Modesto, CA 95350

Chancellor
Dr. Joan Smith
209.575.5509
Signature:
Chancellor
Date: 12/17/14
smithj@yosemite.edu

President
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209.575.6067
Signature:
President
Date: 12/17/14
stearnsjill@mjc.edu

Chief Business Officer
Dr. Al Alt
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Signature:
Vice President of College Administrative Services
Date: 12/17/14
alta@mjc.edu

Chief Instructional Officer
Susan Kincade
209.575.6058
Signature:
Vice President of Instruction
Date: 12/17/14
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Chief Student Services Officer
Brenda Thames
209.575.6060
Signature:
Vice President of Student Services
Date: 12/17/14
thamesb@mjc.edu

Academic Senate President
Dr. James Todd
209.575.6133
Signature:
MJC Academic Senate President/Faculty
Date: 12/17/14
toddj@mjc.edu