COLLEGE MISSION STATEMENT
Hartnell College provides the leadership and resources to ensure that all students shall have equal access to a quality education and the opportunity to pursue and achieve their goals. We are responsive to the learning needs of our community and dedicated to a diverse educational and cultural campus environment that prepares our students for productive participation in a changing world.

1. How does the MESA Program support/strengthen the college’s ability to fulfill its mission?

The Math, Engineering, Science Achievement (MESA) Program is essential to upholding the mission of Hartnell College. Through outreach, recruitment, and partnerships with local k-12 schools and programs, MESA ensures access to quality educational opportunities, especially to those who are underrepresented in science, technology, engineering, and math (STEM.) MESA’s comprehensive academic support services and research proven unique, innovative, and culturally aware programming promote student success amongst our most educationally disadvantaged populations. Through scholarship, transfer support services, and internship opportunities, MESA assists students in reaching their educational goals and prepares them to meet the changing needs of the STEM workforce.

2. What are the key duties, responsibilities, functions, activities, and tasks of the MESA Program?

The Math, Engineering, and Science Achievement Program (MESA) at Hartnell College provides the exposure opportunities, retention services, and academic support necessary to ensure that educationally disadvantaged students excel in math and science, transfer to four year institutions, and graduate with math-based degrees. MESA uses various components to support students. The program helps build an academically based peer community to provide mutual student support and motivation.

The main components of the MESA Program include:
● Student Study Center: A dedicated multipurpose space for study, workshops and information sharing
● Math and Science at Hartnell (MASH): A professional peer based high level STEM tutoring program that provides specialized homework and exam preparation for Calculus and above
● Supplemental Instruction Sessions (SI): Students are scheduled in the same core math and science study sessions and taught how to maintain high academic outcomes through group study
● Assistance in the transfer process: Field trips to universities, applications workshops and review, educational plans, and counseling
● Academic monitoring, advising, and support to ensure retention and timely transfer
● Career advising: Field trips, job fair information, job shadowing exercises, and industry mentors
● Scholarship support and internship placement
● Links with student and professional organizations which provide mentors, guest speakers and offer industry tours
● Professional development workshops that resume preparation, interview skills, internship support and placement
● STEM outreach and community service opportunities to educationally disadvantaged children in local schools

3. What data are used to measure how well the MESA Program is performing with respect to the above-identified duties, responsibilities, functions, activities, and tasks? What do these data suggest about the MESA Program’s effectiveness and its need for continuous quality improvement?

In addition to collecting internal data such as student enrollment and participant rates in tutoring, fieldtrips, and workshop attendance, the MESA Program utilizes data from the MIS populated Chancellor’s Datamart to measure passage rates in STEM courses. In 2012-13, MESA gained the ability to flag students in MIS, and that data will be searchable beginning late fall 2013, enabling us to compare MESA student performance to the general STEM student population. As an ultimate indicator of MESA student success, MESA tracks and monitors transfer rates and maintains contact with MESA alumni through social networking and by managing the “Living Learning Community” initiative at UC Santa Cruz.

4. What are the MESA Program’s greatest strengths and most significant accomplishments during the past three years? (Feel free to use information provided in the response to question #3, above.)

The MESA Program at Hartnell College is strengthening diversity in STEM and meeting skilled workforce needs by creating a new legacy of opportunity for the families of the Salinas Valley and producing future generations of bright young scientists. Despite having only one staff member, the MESA Program has nearly doubled student enrollment from 2011 to 2013, increasing from approximately 150 students served to almost 300, all while strengthening the quality and frequency of student services such as tutoring, fieldtrips and workshops.
In 2012-13, MESA formalized the tutoring program by collaborating with Math faculty and the Math Club to present Math and Science at Hartnell (MASH). MASH provides free, specialized, high level math and science tutoring to hundreds of Hartnell students each semester. The MASH program also serves as professional development for the MESA students who are hired as tutors. The MESA Director served on the Faculty Inquiry Group (FIG) for best practices in Supplemental Instruction (SI) and currently supervises 18 tutors and SI’s who provide academic tutoring and supplemental instruction to STEM majors.

In an effort to better serve other Hartnell campuses and cater program services to meet the changing characteristics of STEM, MESA works closely with faculty Advisor Joe Welch (Computer Science Instructor) as well as our partners in CSIT-In-3 program. Beginning in 2012-13, MESA conducted classroom presentations and recruitments specifically focusing on computer science and CSIT-In-3. MESA also offers tutorial services on the Alisal campus in Computer Science, as well as calculus tutoring to students in the CSIT-In-3 program. In 2012-13, MESA served 36 computer science majors, and in 2013-14 that number has increased to 78.

Because of the educationally disadvantaged eligibility criteria defined by MESA Statewide, 90% of MESA students served in 2012-13 were Latino (Hispanic by state of California definition.) The STEM focused academic support components of MESA have made great contributions to the academic success of Hispanic students in STEM at Hartnell. According to the Chancellor’s Datamart for 2012-13, Hartnell enrolled nearly twice as many Hispanic students in STEM courses than any other nearby community college (including other HSI’s.) The percentage of Hispanic Hartnell students enrolled in degree applicable STEM courses for Fall 2012 was higher than the total percentage of Hispanic students at Hartnell college (74% versus 69%), and the success/passage rate of Hispanic students enrolled in transferable STEM courses at Hartnell is comparable to the success rate for all students (72% and 73% respectively). In other words Latino students are equally successful in STEM courses at Hartnell as other students. (In many colleges their success rates are lower than the overall success rate.) The success passage rate for Hispanic students at Hartnell in STEM courses is the highest success/passage rate for Hispanic students in STEM courses with the exception of Skyline College (72% versus 72.83% respectively.)

Additionally, despite the challenges of serving first generation, low income students, MESA has had great success in supporting STEM majors towards successful transfer. In 2012-13, MESA doubled the number of successful transfer students of 2011-12. 34 MESA students successfully transferred to a four year university in pursuit of STEM degrees, Representing a nearly 50% transfer rate of fully eligible MESA students over two years. Additionally, six major transfer scholarships were all won by MESA students, including two 25K S-Stem scholarships, two $20K Baskin Scholarships, and two $20K Matsui foundation scholarships.

5. What are the MESA Program’s major challenges during the past three years—that is, what aspects of the service area are most in need of improvement? (Feel free to use information provided in the response to question #3, above.)
One of the major challenges for the MESA program has been increasing student enrollment and demand for services without the staffing to increase infrastructure. As first generation, low income STEM majors, MESA students require specialized STEM academic advising and transfer support. At most colleges, MESA Programs have a full time Director, a full or part time Administrative Assistant, and a MESA Counselor. However at Hartnell, the program is currently operating with one full time staff person, the MESA Project Coordinator who is filling all three roles.

Because of the lack of staffing and high demand for services, not all MESA students receive the in depth academic advising that is required to ensure timely transfer. One of the requirements is that all MESA students have Educational Plans, however, without a MESA Counselor, it is impossible to ensure that the Educational Plans are complete and accurate, and that timely follow up and interventions take place. Additionally, despite excellent efforts to collaborate with other departments on campus, especially in STEM, MESA students would greatly benefit from a stronger connection to Student Affairs. Being incorporated under the umbrella of Student Affairs in the area of Student Services would provide structure for MESA services and strengthen opportunities to promote MESA student success.

6. What are the MESA Program’s service area outcomes?

The MESA Program’s service area outcomes are taken directly from our Annual workplan contained within our contract with the Chancellor’s Office:

Outcome 1: To increase the number of educationally disadvantaged students pursuing degrees in mathematics, engineering, science, and technology who are eligible to transfer to a four year college or university by accepting and supporting 100 qualified students into the Hartnell MESA program.

Outcome 2: To implement strategies to increase the rate at which MESA students are deemed transfer ready in STEM (science, technology, engineering, and mathematics) majors to 70 percent of all MESA students and 100 percent of students who complete their educational plans.

Outcome 3: To improve the academic performance of MESA students by implementing Academic Excellence Workshops and other support services accessible to 100 percent of enrolled MESA students.

Outcome 4: To increase the leadership skills and raise the educational expectations of MESA students by implementing and supporting MESA/STEM student groups.

Outcome 5: To strengthen the relationships among educators, prospective employers in business and industry, and MESA students; establish student internships, and other career opportunities.

Outcome 6: To establish and maintain partnerships with MESA Engineering Programs (MEP), MESA Schools Programs (MSP), California Alliance for Minority Participation (CAMP), and other undergraduate research programs in order to provide students with optimum internship and scholarship opportunities.

7. How are these service area outcomes assessed?
MESA submits two reports annually to the Chancellor’s Office; one mid year report in February and one final annual report in August. The reports contain narratives of activities as well as data. In addition to collecting internal data such as participation and attendance, the MESA Program utilizes data from the MIS populated chancellor’s datamart to measure passage rates in STEM courses. In 2012-13, MESA gained the ability to flag students in MIS, and that data will be searchable beginning late fall 2013, enabling us to compare MESA student performance to the general STEM student population. As an ultimate indicator of MESA student success, MESA tracks and monitors transfer rates.

8. Identify the service area outcomes that have been successfully met during the past three years, and explain how they were successfully met. Also, discuss the steps that are being taken to ensure continuous quality improvement with respect to these outcomes.

All service areas have been met or exceeded. Throughout its existence at Hartnell, the MESA program has organized, planned, designed, and implemented outreach and recruitment; orientation activities; a MESA student center; student clustering; academic excellence workshops; educational planning; counseling support; professional development; internship opportunities; university tours; scholarship support; and hands-on experiences to achieve improved student success.

The program has instituted methods to reach out to students at local high schools and target underrepresented students in STEM disciplines and leverages links with growing STEM academic programs, departments, and other resources to support growth and expansion of services. The MESA program at Hartnell College works closely with MESA statewide, other regional centers, UC and CSU campuses, and industry partners in implementing this project.

9. Identify the service area outcomes that have not been met successfully during the past three years. Explain the ways in which Academic Services is engaging in continuous quality improvement with respect to this challenge. (Note: Be sure to include and to elaborate upon at least some of this information in the “Annual Action Plan”).

While the MESA program has excellent connections with our industry and faculty advisors, the development of the STEM steering committee in 2013-14 will formalize the structure for providing industry oversight and input into the program. Additionally, there is a tremendous need to strengthen our ability to provide quality counseling services to MESA students. This will require the addition of at least a part time dedicated MESA counselor. The MESA Coordinator (Director) is currently working with college administration to identify funding sources as well as personnel to fulfill this role.

10. How successfully has the MESA Program collaborated with other areas at the college (both instructional and non-instructional)? What steps are being taken to ensure continuous quality improvement in the area of collaboration?

On campus, the program benefits from the ongoing support of our partners in the three Title V grants on campus. Title V grants provide funding for MESA tutors and Supplemental Instruction leaders, as well as funding to pay for MESA students in internships and fieldtrip opportunities coordinated by MESA. The MESA program works closely with STEM club faculty advisors to support club activities and promote
MESA student involvement. MESA has also collaborated with the California Endowment Building Healthy Communities initiative to promote Health Professions Pathways, as well as the Foundation and Office of Advancement in development of STEM collateral materials and the STEM Steering Committee.

Regionally, the Hartnell MESA Program continued its participation in the South Bay MESA Alliance. The goal of the alliance is to generate fundraising opportunities and strengthen our pipeline through improved student identification and handoff, increased awareness, and collaborative events and activities. Hartnell MESA students also continue to benefit from existing links to other STEM programs, institutions, and professional organizations. For example, through our work with Title V CUSP programs, MESA students work with scientists or engineers on projects related to the research programs at UCSC or industry partner sites, such as NASA Ames Research Center, the Naval Postgraduate School, USDA Agricultural Research Service, or the Monterey Bay National Marine Sanctuary. Hartnell has placed MESA student interns at the Naval Postgraduate School Cebrowski Institute for the last five years. Additionally new partnerships are being formed on campus with the Hartnell Learning Center, TRiO, and EOPS programs to increase student academic and financial support.

11. Describe the professional development opportunities taken advantage of by members of the MESA Program within the past two years. In addition, please explain the ways in which Administrative Service personnel’s engagement in these opportunities has helped Advancement and Development meet its various obligations and fulfill both its own mission and the college’s mission.

The MESA Program Director participated in three statewide MESA Director training sessions conducted by the CCC0, as well as a new MESA Director Orientation. The MESA Director will also attend the ELAC meeting in October.

12. Does the college provide adequate support and resources for the MESA Program (financial, administrative, facilities-related, equipment-related, and so on)? Does the MESA Program have sufficient staffing to support its ability to meet its service area outcomes? Please use relevant, specific examples and evidence to support and clarify your responses.

The Hartnell MESA Program is considered by the college administration to be integral to the mission of supporting educationally disadvantaged STEM majors at Hartnell College. The college administration also supports The Hartnell College Foundation and Vice President of Advancement provides program oversight and is a champion for fundraising efforts directly benefitting MESA students, including providing funding for STEM internships and emergency scholarships for AB 540 MESA students. Hartnell College also funds Science-124, an Internship Preparation Course for MESA students seeking summer internships including facilities and instructor salaries.

However, the program is currently dramatically understaffed and can not deliver the full compliment of services required to meet the demands of increasing student enrollment. From 2010 to 2012, there were no full time permanent staff to run the program, and hence the program enrollment and activities dramatically declined. Fortunately, in August 2012, a full time “MESA Project Coordinator” position was
recruited to serve as the program Director. As a result, the program has been in a state of rebuilding and revitalization as evidenced by our program successes (Question 4.) The program continues to grow at a dramatic rate and the current staffing structure does not adequately match the statewide MESA model nor does it have the capacity to implement the program to its full potential.

The MESA Director is a classified staff, yet is functioning as a manager. Please refer to the attached “Grant Project Director” job description for a complete list of manager level duties which are currently being performed. In order to continue managing the MESA program and its affiliated initiatives and collaborative efforts, the program Director position must be re-classified as a manager. Furthermore, in order to remain in compliance with grant requirements and grow the program infrastructure to adequately meet the demand of the growing student enrollment, the college should provide at least a part-time dedicated MESA counselor. A 50% Program Assistant position funded by the MESA grant is currently in recruitment, however, ideally the program would have two, full-time dedicated staff (One full-time manager and one full-time program assistant) as well as a part-time dedicated counselor. With additional staffing the program would have the capacity to greatly increase the number of students it serves (we currently maintain a waiting list,) and also broaden the scope and effectiveness of campus collaborations, activities, events, and services. This would also enable the MESA Director to spend more time conducting fundraising and seeking additional resources such as NSF grants to sustain the growing program.

13. If the MESA Program’s current needs—identified in the response to item #12—are not being met, explain the ramifications of this state of affairs.

Without a full complement of staffing, the quality and consistency of program services cannot be maintained and the MESA Director will not have adequate time to conduct fundraising and development activities. Additionally, the number of students that we serve has been limited and will continue to be limited despite increasing interest and demand for the program.

As a classified staff, the program Director is currently performing manager duties, hence working out of classification, yet does not have the rights and privileges which are required to continue to perform essential job functions such as hiring and supervising of student employees and the soon to be hired MESA Program Assistant.

14. How successfully has the MESA Program addressed external compliance regulations and issues, and what steps have been taken to ensure complete success concerning this matter? Please use relevant, specific examples and evidence in your response.

There are no external compliance issues to be addressed.

15. Please provide any other information or comments that are relevant to this review of the service area.

The MESA Program has and will continue to make great contributions in support of Hartnell College’s mission and strategic priority areas. We are currently operating on a very limited budget and successfully leveraging partnerships to finance program services. Through a small additional investment from the college to augment the program staffing budget, the MESA Program could potentially serve hundreds more students, significantly impacting student success at Hartnell.
16. Please provide an EXECUTIVE SUMMARY of this service area review, using the Advancement and Development “Executive Summary” template.

17. The information requested during this comprehensive review process is intended to be meaningful and useful for the purpose of continuous quality improvement for the Advancement and Development area. To this end, each year the Advancement and Development area will develop a workable, year-long, follow-up action plan (entitled “Annual Action Plan”) that both derives from and addresses key information provided by the comprehensive review. Each yearly action plan will outline specific initiatives focusing on the Advancement and Development area’s identified areas in need of strengthening, its identified challenges that need to be met, and the like. (Please use the Advancement and Development “Annual Action Plan” template.)