

Basic Program Information

Department Name:

Diagnostic Medical Sonography

Division Name:

Biology & Allied Health Science

Program Mission:

The Diagnostic Medical Sonography Program of Foothill College is dedicated to the integration of didactic, laboratory, and clinical objectives with emphasis on the clinical aspect of Diagnostic Medical Sonography. These objectives are designed to successfully develop student's cognitive, psychomotor, and affective domains. The program strives to strengthen its role as a principal community resource by providing this program as well as continuing education to meet individual and collective needs. The program goals include:

1. Graduate competent entry-level, ARDMS (American Registry of Diagnostic Medical Sonography) board eligible sonographer's.
2. To develop student's communication and critical thinking skills in order to function as a competent and diligent member of the health care team.
3. To develop technical skills in order to provide comprehensive quality care to individuals from a diverse socioeconomic, educational, and or cultural background.
4. To graduate health care professionals who are respectful of others as well as practice the principles of ethics including autonomy, beneficence, no maleficence, veracity, justice, fidelity, and recognize his/her responsibilities under the law.
5. To develop the student's awareness and commitment toward understanding and implementing the Code of Conduct & Code of Ethics as described by the Society of Diagnostic Medical Sonography.
6. To convey the importance of striving for continued improvement through education and active participation in this profession.

Please list all Program Review team members who participated in this Program Review:

Name	Department	Position
Kathleen Austin	Biology & Health Science	Director

Total number of Full Time Faculty:	1, the Director
Total number of Part Time Faculty:	6

Please list all existing Classified positions:
Program Coordinator: 1 shared with all division programs.

List all Programs* covered by this review & check the appropriate column for program type:

Program Name	Certificate of Achievement Program	Associate Degree Program	Pathway Program
Diagnostic Medical Sonography	√	√	

*If you have a supporting program or pathway in your area for which you will be making resource requests, please analyze it within this program review (i.e. Integrated Reading and Writing, Math My Way, etc.) You will only need to address those data elements that apply.

Section 1: Data and Trend Analysis

a. Program Data:

Data will be posted on <http://foothill.edu/staff/irs/programplans/programreviewdata.php> for all measures except non-transcriptable completion. You must manually copy data in the boxes below for every degree or certificate of achievement covered by this program review.

Transcriptable Programs	2010-2011	2011-2012	2012-2013	% Change
A.S. Degree	14	16	17	5.2%
Certificate of Achievement	18	18	17	-4.9%

Please provide any non-transcriptable completion data you have available. Institutional Research does not track this data; you are responsible for tracking this data.

Non-Transcriptable Program	2010-2011	2011-2012	2012-2013	% Change
Example: Career Certificate	0	0	0	0%

b. Department Level Data:

	2010-2011	2011-2012	2012-2013	% Change
Enrollment	18	17	17	0%
Productivity (College Goal 2013-14: 535)	703	684	516	-24%
Success	97%	98%	99%	1%
Full-time FTEF	1	1.1	1.3	18%
Part-time FTEF	2.5	2.6	2.7	3.2%

* data is inaccurate, refer to PR Data pgs 3 & 4

c. Associate Degree Transfer (ADT)

There is a fall 2014 legislated deadline for approval of ADTs (AA-T/AS/T degrees). **If there is a Transfer Model Curriculum (TMC) available in your program, you are *required* to offer an approved AA-T/AS-T.** Indicate the status of your program's ADT:


Check one	Associate Degree Transfer Status
	State Approved
	Submitted to CCCC
	Submitted to Office of Instruction
	In Progress with Articulation
	Planning Stage with Department
x	Not Applicable


If you are required to offer an approved ADT and it has not been state-approved, please comment on the program's progress/anticipated approval date.

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Using the prompts and the data from the tables above, provide a short, concise narrative analysis for each of the following indicators. If additional data is cited (beyond program review data sheet), please indicate your data source(s).

- d. Enrollment trends:** Over the last three years, is the enrollment in your program holding steady, or is there a noticeable increase or decline? Please comment on the data and analyze the trends.

 **2010-2013:** the decision to expand the DMS program to an increased 18-month program meets programmatic recommendations but creates logistical issues. This means the maximum of students accepted into the DMS program each year was slightly fewer but overall given now 2 quarter overlap of both classes the numbers of students overall has increased. A greater number of hospitals are needed as clinical education partners. Many hospitals *could not or would not* allow for additional students. The results have been an acknowledged higher vs. lower enrollment in alternating years. This is expected and not a result of declining interest or a reduction of qualified applicants.

 A more recent factor is final termination of the *directed studies* courses. The gradual phase-out has impacted WSCH & productivity.

Net result is a program which is "holding steady".

- e. Student Demographics:** Please comment on the enrollment data, comparing the program-level data with the college-level data. Discuss any noticeable differences in areas such as ethnicity, gender, age and highest degree.

College success rates for targeted groups and non targeted groups is 73% - 85%.
DMS program success rates for targeted groups and non targeted groups is 95% - 99%.
Distribution by ethnicity is similar to college data. Variants include an enrollment of 21% Asian/F/PI in contrast to the college stats of 29% and white enrollment of 63% compared to the college of 46%. 5% decline to state. The DMS enrollment stats are similar to the applicant pools. The director is involved in considerable outreach to feeder schools and encourages all qualified students to apply stating the need for a more diverse health care professional population.

College female to males is 52% and 48%.
DMS program female to males is 87% and 13%. This is reflective of the health care industry's gender data.
Success rates by gender for the college is 82 & 78%.
DMS success rates by gender is 99 & 99%.

College highest degree BA/BS is 15%.
DMS program highest degree BA/BA is 67%.

College AA/AS degrees is 4%.
DMS program AA/AS degrees is 26%.

Overall the DMS program exceeds the college success rates for the various demographics.
Student equity is part of the program mission to ensure all students have opportunity to succeed. The percentage of entering students with a BA/BS degree is reflective upon the national board exam requirements and admission.

- f. Productivity:** Although the college productivity goal is 535, there are many factors that affect productivity, i.e. seat count/facilities/accreditation restrictions. Please evaluate and discuss the productivity trends in *your program*, relative to the college goal and any additional factors that impact productivity. If your productivity is experiencing a declining trend, please address strategies that your program could adopt to increase productivity.

2010-2011 productivity was 703
2011-2012 productivity was 684
2012-2013 productivity was 516

For these 3 cycles the number of students is stable as is the number of classes required by the DMS program. Thus the curriculum is the same. The difference began in 2011-2012 as this was the beginning for the elimination of the Directed Studies courses accelerating in 2012-2013.

It is the desire of the DMS program to expand class size though there are constraints. The number of students to educational training partners remains at a 1:1 ratio. For 6 months out of a twelve month year there is overlap of students resulting in a need for up to 38-40 different hospital training partners during this cycle. A constraint is the finite number of students the campus lab can accommodate .

Section 2: Student Equity and Institutional Standards

As part of an accreditation requirement, the college has established institution-set standards across specific indicators that are annual targets to be met and exceeded. Please comment on how these indicators compare at your program level and at the college level. (For a complete description of the institutional standard, please see the instructional cover sheet)

a. Institutional Standard for Course Completion Rate: 55%

Please comment on your program's course success data, including any differences in completion rates by student demographics as well as efforts to address these differences.

Course completion rate is 97-99%. The institutional course completion rate is 55% and vocational course completion rate is 87.9%.

The program would prefer 100% course and program completion rates. Historically 1-2 students will leave the program and usually in the first quarter. The student typically cites external factors as the reason for the withdrawal. In spite of counseling and discussion the attrition does not appear to change.

b. Institutional Standard for Degree Completion Number: 450

Has the number of students completing degrees in your program held steady or increased/declined in the last three years? Please comment on the data, analyze the trends, including any differences in completion rates by student demographics.

Most if not all students enter with a BS and/or one or more AS degrees. All successfully completing the DMS program students are issued the Certificate of Achievement. Most receive the AS degree in Diagnostic Medical Sonography.

There has been an increase in the number of AS degrees issued from previous years.

2010-2012 class was 16/17 AS Degrees. 1 student, a physician ad no interest in the AS degree.

2011-2013 class was 18/18 AS Degrees.

2012-2014 class is anticipated to be 16/17 AS Degrees. 1 student, a physician has no interest in the AS degree.

c. Institutional Standard for Certificate Completion Number (Transcriptable): 325

Has the number of students completing certificates in your program held steady, or increased/declines in the last three years? Please comment on the data, analyze the trends, including any differences in completion rates by student demographics.

All students successfully completing the DMS program (100%) receive the Certificate of Achievement. See data above for AS degree completion rate.

d. Institutional Standard for Transfer to four-year colleges/universities: 775

Based on the transfer data provided, what role does your program play in the overall transfer rates? Please comment on any notable trends or data elements related to your program's role in transfer.

Graduating students who have not earned the BS degree prior to entry into the DMS program are encouraged to pursue the degree. Note: for example in 2012-2013 nearly 70% entered the DMS program with a BS degree. The remaining students hold 1-3 AA/AS degrees. The student's goal is to pursue a successful professional career in a well-paying field. Students often cite the BS degree previously obtained did not provide for a viable career.

Given the educational background of the 30% who do not have a BA/BS degree it is believed they are transfer prepared for the rigor of the 4-year college/university.

An interesting trend has been an increase in applications from those with a BS degree in Kinesiology with a goal of becoming a physical therapist. Since PT has evolved to a PhD the only positions available are entry level physical therapy assistants thus the number of applications to the DMS program has spiked. The impetus for these students to enroll in the DMS program is to develop new skills to become competitive in the workforce.

Section 3: Core Mission and Support

The College's Core Missions are reflected below. Please respond to each mission using the prompts below.

a. Basic Skills: (English, ESLL and Math): For more information about the Core Mission of Basic Skills, see the Basic Skills Workgroup website: <http://foothill.edu/president/basicskills.php> If your program is categorized as a basic skills program, please discuss current outcomes or initiatives related to this core mission and analyze student success through the core mission pathway.

NA

If your program is NOT categorized primarily as a basic skills program, comment about how your program/classes supports Foothill's basic skills mission and students.

Students enrolled and successfully completed other college coursework and medical programs including basic skills prior to enrollment in the Diagnostic Medical Sonography program. It is not uncommon for students for which English was not the primary language to have succeeded in the arena of Basic Skills and to eventually progress into the DMS program. A rich more diverse cohort of program students can be the eventual benefit.

b. Transfer: For more information about the Core Mission of Transfer, see the Transfer Workgroup website: <http://foothill.edu/president/transfer.php>

If your program is classified as a transfer program, please discuss current outcomes or initiatives related to this core mission and analyze student success through the core mission pathway.

The approximately 30% of each graduating class not already in possession of a BA/BS degree are encouraged to transfer and complete a baccalaureate degree. This would allow for the health care professional to pursue additional career paths in management, manufacturing, sales, education, etc. It is unknown how many follow through though not likely many as this career yields a well-paying professional career.

If your program is NOT categorized primarily as a transfer program, please comment about how your program/classes support Foothill's transfer mission and students.

c. Workforce: For more information about the Core Mission of Workforce, see the Workforce Workgroup website: <http://www.foothill.edu/president/workforce.php>

If your program is classified as a workforce program, please discuss current outcomes or initiatives related to this core mission and analyze student success through the core mission pathway.

“Our Mission: Foothill College offers educational excellence to diverse students seeking transfer, career preparation and enhancement, and basic skills mastery. We are committed to innovation, ongoing improvement, accessibility and serving our community.”

The Diagnostic Medical Sonography Program is one of two accredited DMS programs in northern California with the other a private non degree granting program through Kaiser Hospitals and Health System. Accreditation is programmatic. There is one recognized organization in the U.S. known as CAAHEP (Commission on Accreditation of Allied Health Education Programs) with review by the JRC-DMS (Joint Review Committee for Diagnostic Medical Sonography).

The program continues to graduate competency based job ready professionals. Measurements include but are not exclusive to graduation rates, graduate and employer satisfaction surveys, national board examination pass rates, hiring rates, etc. All of this data is reported annually to the national organizations. The results continue to be outstanding.

2011-2012: 78% received the AS DMS degree (3 foreign trained MD's had no interest in the degree}.
100% received the Certificate of Achievement.
100% pas rate for the National Board exams.

2012-2013: 100% received both the AS DMS degree.
100% received the Certificate of Achievement.
100% pas rate for the National Board exams

- Employer Surveys
Score: 4.80 out of 5.0
 - Graduate Surveys
Score: 4.86 out of 5.0
 - Course Assessment by Student: overwhelmingly very satisfied
 - Course Assessment by Faculty: feels courses are on target to meet employer needs; constantly reassessing for improvement
 - Clinical Preceptorship Site Evaluation by Student: very satisfied to satisfied; some desire more time with MD's
 - Clinical Preceptorship Site Evaluation of Student by Faculty: ongoing assessment with the majority performing good to excellent, very few with deficits
 - ARDMS Board Exam Pass Rates (100% X's past 6 years) & (95-100% x's previous 24 yrs)
 - Program Assessment by Students: 95-100% satisfied
 - Annual Reports to CAAHEP with assessment info: surpassing thresholds
 - Resource Assessment to Accreditation Agency by Students (of Program Faculty, Physical, Learning Resources, Clinical Resources, MD Interaction)
Scores: 4.84 out of 5.0
 - Resource Assessment to Accreditation Agency by Clinical Preceptors (of Program Faculty, Physical, Learning Resources, Clinical Resources, MD Interaction)
Scores: 4.68 out of 5.0
 - Resource Assessment to Accreditation Agency by Advisory Board, MD, Faculty (of Program Faculty, Physical, Learning Resources, Clinical Resources, MD Interaction)
Score: 4.66 out of 5.0
 - Exit Interviews: overall program performing to expectations, occasional comments about too much homework, program is impacted.
- Individual course assessment by students.**

Ultrasound Makes #6 on the Bureau of Labor Statistics Employment Projections list

Diagnostic Medical Sonographers are projected to increase from 59 thousand to 86 thousand by 2022, a 46% increase over the period, which makes it the #6 highest growth profession. Median annual wage for sonographers in 2012 was pegged at \$65,860. (December 19, 2013)

<http://www.bls.gov/news.release/pdf/ecopro.pdf>

Diagnostic medical sonography predicted to be 6th fastest growing job over the next 5 years

Ranking #6 in the CareerBuilder and Economic Modeling Specialists recent projections of new jobs, Sonography is expected to grow 15%. (2013-2017) (November 18, 2013)

<http://www.beckershospitalreview.com/workforce-labor-management/26-healthcare-jobs-among-50-projected-fastest-growing.html>

If your program is NOT categorized as a workforce program, please comment about how your program/classes support Foothill's workforce mission and students.

Section 4: Learning Outcomes Assessment Summary

a. Attach 2012-2013 Course-Level – Four Column Report for CL-SLO Assessment from TracDat, please contact the Office of Instruction to assist you with this step if needed.

b. Attach 2012-2013 Program Level – Four Column Report for PL-SLO Assessment from TracDat, please contact the Office of Instruction to assist you with this step if needed.

Section 5: SLO Assessment and Reflection

Based on your assessment data and reflections, please respond to the following prompts.

- a. What curricular, pedagogical or other changes have you made as a result of your CL-SLO assessments?**

The course-level SLOs are being met. DMS students demonstrate competency through a number of assessments including: board exams, clinical practical exams, lab practical, case study projects, research papers and didactic exams.

The DMS students are highly successful and no curricular changes are indicated in terms of SLOs. ,

The program has other outcome assessments such as:

- Yearly alumni surveys
- Graduate surveys
- Mock Board Exams
- Program assessments by students, clinical instructors and faculty
- Classroom Assessments

Upon comparison of the SLO's data to the program surveys, the faculty think the information in the program surveys are accurate. SLO's and the program's other outcome assessments are considered together when implementing changes to the curriculum.

b. How do the objectives and outcomes in your courses relate to the program-level student learning outcomes and to the college mission?

Objectives stated are cornerstones for the outcomes of each course and the progression through the entire DMS program. In turn, they align with the college mission of career preparation.

How has assessment of program-level student learning outcomes led to certificate/degree program improvements? Have you made any changes to your program based on the findings?

c. If your program has other outcomes assessments at the program level, comment on the findings.

Both PL-SLO's continue to be met. The question asks how assessments of PL SLO outcomes led to certificate/degree program improvements. There is no obvious correlation between student learning outcomes or PL-SLO's and the number of certificates/degrees issued. The PLO and SLO structure has not led to improvements in and of itself. All that is found in the PLO/SLO documents is reflective of a structure and curriculum in place prior to SLO/PL-SLO programs. The PLO/SLO process merely articulates a practice employed for a few decades with an overall goal of career training to both the graduate and employer needs. Industry demand for specific skill sets is the primary considerations for program change. This information is obtained during advisory committee meetings, clinical instructor meetings, student surveys, local and national meetings, programmatic accreditation changes, etc.

The assessment of program-level student learning outcomes has not led to program improvements by themselves. Instead it validates what is already a quality program.

The DMS program is active with career preparation, transfer, and career education. It aligns with all of the PLO's for communication, computation, creative, critical and analytical thinking, as well as community and global consciousness and responsibility.

The DMS Program is consistent with the college mission statement as it provides student centered educational opportunity leading to a profession. It incorporates accountability and partnership. Student learning and achievement is measured through a variety of methods and is competency based instruction. Ongoing assessment and continued reassessment takes place to ensure graduates are competent and possess the skills including cognitive, psychomotor, and affective as evidenced by examination and employer and graduate surveys.

d. What do faculty in your program do to ensure that meaningful dialogue takes place in both shaping and evaluating/assessing your program's student learning outcomes?

All program faculty are part-time. To the extent they are able to participate with discussions they do in an informal way. They are under no contractual obligations to assist in this area.

Section 6: Program Goals and Rationale

Program goals address broad issues and concerns that incorporate some sort of measurable action and connect to Foothill’s core missions, [Educational & Strategic Master Plan \(ESMP\)](#), the division plan, and SLOs. Goals are not resource requests.

List Previous Program Goals from last academic year: check the appropriate status box & provide explanation in the comment box.

The DMS program actively prepares the graduate for a career in a specialty area of health care, transfer, and career education. It aligns with all of the COR’s as communication, computation, creative, critical, and analytical thinking, as well as community/global consciousness and responsibility.

Goal/Outcome (This is NOT a resource request)	Completed? (Y/N)	In Progress? (Y/N)	Comment on Status
Continue to seek additional clerical support	No	Unknown	Part of last three year’s Program Summary of Planning Goals & Action Plans.
Evaluator for Allied Health Science students transcripts, course planning, etc.	No	Unknown	Part of past three years Program Summary of Planning Goals & Action Plans.

New Goals: Goals can be multi-year (in Section 7 you will detail resources needed)

Goal/Outcome (This is NOT a resource request)	Timeline (long/short-term)	How will this goal improve student success or respond to other key college initiatives?	How will progress toward this goal be measured?
1. Continue to add new clinical preceptorship facilities as educational training partners.	Ongoing	Meets college mission of workforce, career and technical education preparation to meet needs of business and industry.	Ongoing annual venture requiring contacts and meetings with the principles of the medical facilities.
2. Outreach to feeder schools to enhance the applicant pool.	Ongoing	Outreach to selected feeder schools encourages qualified potential applicants to pursue this career. Thus will meet accreditation/board exam requirements and the college mission of workforce, career and technical education preparation to meet the needs of business and industry.	Ongoing annual venture providing presentations to feeder schools student populations within a 100 mile radius.
3. Outreach to increase males and underrepresented populations into this profession.	Ongoing	See above.	Measured via demographics of DMS program cohorts per year.
4. Explore ways to identify earlier those students with spatial recognition difficulties along with possible intervention.	Ongoing	Meets college mission of workforce, career and technical education preparation to meet needs of business and industry.	This is difficult to assess. It is not known how test could be used or if relevant to issue(s) within the program

			and/or profession.
5. Continue to explore ways to have volunteers from the public to serve as lab “patients”.	Ongoing	Meets college mission of workforce, career and technical education preparation to meet needs of business and industry.	Improvement in campus lab scores and access to diverse “live” patient populations.
6. Engage dialog with administration as to how to meet hospitals mandates for faculty including issues of time/costs.	Ongoing	Programmatic accreditation states the needs to be adequate clinical instruction and assessment. This is completed through onsite evaluation and dialog with the student and hospital clinical instructor.	Medical partners are mandating training, medical records, immunizations, background checks for college faculty. Not meeting the mandates means faculty cannot assess students at his/her medical assignment.
7. Additional clerical support requested since 2011.	Ongoing	Programmatic accreditation states the need for adequate support including clerical.	Freeing the director from clerical duties and reallocate the workload frees the director to decrease the number of hours appropriated from personal time and vacation time.
8. Evaluator for Allied Health Science Division to assist with transcript’s, evals, etc.	Ongoing	A dedicated evaluator to improve access and create an educational plan for incoming students. Work with students with his/her transcripts, input records, assist students with pre and in-progress career classes as well as develop an educational path.	With the more recent increase of the counselor “generalist” leading to the loss of counselors with a more specialized knowledge of the medical programs this position would decrease the time to complete the process, increase the accuracy and efficiency and measured accordingly. It would assist counselor’s heavy workloads and decrease the number of misinformation especially to prospective students.
9. To continue to integrate distance learning.	Ongoing	Distance learning is an integral part of the college mission. Several courses are hybrids and there is a partnership with Santa Rosa Jr College for TV DL. The DMS program would like to seek additional partners. A long term goal would be for all students to be able to listen and have a live interaction from his/her home.	One class is fully online. Other classes are hybrids. There is a desire to continue to expand the ETUDES model to other classes pending solving proprietary concerns. Long range is the ability to have students interact with “live” lectures from his/her

			home.
10. Provide any assistance to articulate the baccalaureate degree in health care and taught at FC or local 4-year college.	Most likely long range.	This would meet the college desire to increase transfer.	Any role the DMS program director would play would be in concert with other stakeholders. If implemented it would be easily measured.
11. CAAHEP (Commission on Accreditation for Allied Health Education Programs) annual fee.	Ongoing	Accreditation is a goal of the college.	The fee is paid is an excellent measurement.
12. Maintain accreditation status	ongoing	Accreditation mandates are established to ensure high quality program structure thereby enhancing student success	Regular accreditation visits

Section 7: Program Resources and Support

Using the tables below, summarize your program’s unfunded resource requests. Refer to the Operations Planning Committee website: <http://foothill.edu/president/operations.php> for current guiding principles, rubrics and resource allocation information.

Full Time Faculty and/or Staff Positions

Position	\$ Amount	Related Goal from Table in section 6 and how this resource request supports this goal.	Was position previously approved in last 3 years? (y/n)
None			

Unbudgeted Reassigned Time (calculate by % reassign time x salary/benefits of FT)

Has the program received college funding for reassign time in the last three years? (y/n) yes	If yes, indicate percent of time. 25%
Has the program used division or department B-budget to fund reassign time? (y/n) no	

Indicate duties covered by requested reassign time:

Responsibility	Estimated \$	Related Goal from Table in section 6 and how this resource request supports this goal.	Est hours per month	% T i

				m e
Seek Director release time of 50%.	As per established salary structure.	This is part of the last three year's Program Summary of Planning Goals & Action Plans. The Program Director is a full time classroom instructor and clinical site evaluator and administrator. Most administrative work and classroom prep/research work is completed during most weekends and vacations. Teaching and classroom prep has taken a backseat to the continual additions of projects such as Program Review, TracDat, SLO's, PLO's, and much more. Clinical education partners (the hospital's) are increasing their demands to the program directors workload as is accreditation, etc. Adequate time to complete assignments and projects on time and during working hours would be truly a novel experience.	To 50%	

One Time B Budget Augmentation

Description	\$ Amount	Related Goal from Table in section 6 and how this resource request supports this goal.	Previously funded in last 3 years? (y/n)
B Budget Augmentation	<i>Request immediate augmentation of an additional \$2,500 for 2013-2014.</i>	Goal 12. Medical Education Partners who provide the student with hospital clinical preceptorship training is mandating college faculty present medical records and go through the hospitals internal employee training. Medical includes but not specific to immunizations, titers, background check, CPR clearance, DMV, etc. Costs for completing this must be borne by the college and/or program.	No, this is a recent mandate.
Funding for faculty development, Clinical Instructor's meetings and Advisory Board meetings.	\$1,000.	Goal 12 <ul style="list-style-type: none"> • Advisory board meetings and hospital clinical instructor meetings are mandated by program accreditation • Clinical instructor meetings and advisory board meetings are held during day and evening hours to accommodate the work schedule of its members. • In addition, national ARDMS mandates 36 hours of CME's per triennium is required to maintain continuing medical education credits. • Food service along with print materials and handouts is needed. Supports students learning & career preparation Supports Strategic Initiative 1: Student success Supports Strategic Initiative	No Funds were previously drawn from accounts no longer eligible for this purpose.

		2: Community collaboration	
Student Conference Fund	\$1800	Goal 12 Allow for as many as possible of the 2 nd year DMS students to attend a professional conference in San Francisco. Information elevates knowledge for national board exams, initiates networking with potential employers and integrates the student into the professional duties of the Diagnostic Medical Sonographer.	no

Ongoing B Budget Augmentation

Description	\$ Amount	Related Goal from Table in section 6 and how this resource request supports this goal.	Previously funded in last 3 years? (y/n)
Professional Development	\$4,000.	To maintain professional credentials along with bringing up to date instruction to the classroom. Compliance with ARDMS (American Registry of Diagnostic Medical Sonography) Professional credentials and CME (continuing medical education) mandates. Supports Strategic Initiative 1: Student success Supports Strategic Initiative 2: Community & Collaboration CME's are required by accreditation. Serves to improve curriculum design/structure/ and direct to the classroom.	Yes through Perkins.

Facilities and Equipment

Facilities/Equipment Description	\$ Amount	Related Goal from Table in section 6 and how this resource request supports this goal.	Previously funded in last 3 years? (y/n)
Install lockable cabinet for storage including student's valuables.	Est. \$5,000-6,000.	When 6707 building was built a cabinet from the original design was eliminated citing budget cuts. Lockable storage is an issue. An additional use would be to store students valuables as purses, wallets, backpacks are in clear view through an open entry door next to public restrooms/traffic. Door to the lab is open due to poor ventilation.	No
Purchase AV materials such as training DVD's, books, lab supplies, etc.	Ongoing \$1,800.	Success demonstrated with skills testing, general knowledge reinforcement, national board exam pass rates. Supports students learning & career preparation Supports Strategic Initiative 1: Student success	Yes, few items purchased through Perkins 2 years ago, small items through B-budget.

		Supports Strategic Initiative 2: Community collaboration Supports Strategic Initiative 3: Nontraditional outreach.	
Replace outdated US equipment & transducers. Has been requested since 2010. Request first replacement for 2014 and one per year for 3 years.	Approx. \$155,000. per system.	Career reparation/education. To meet patient's needs. Supports students learning & career preparation Supports Strategic Initiative 1: Student success	No
Purchase training phantoms.	Large body phantom is \$21,000. Other organ specific smaller one for other purposes range \$2,000-\$13,000.	Supports students learning & career preparation Supports Strategic Initiative 1: Student success Supports Strategic Initiative	3 years ago an upper body phantom was purchased through Perkins
Replace Med Sim Simulation Trainer	Part of last year's Program Summary	Meets student success as per college Mission Statement and the COR's.	Continue to keep on PR list
Software upgrades within 3 years	By 2013 Part of last year's Program Summary of Planning Goals & Action Plans.	Meets student success as per college Mission Statement and the COR's.	Continue to keep on PR list

Section 8: Program Review Summary

Address the concerns or recommendations that were made in prior program review cycles, including any feedback from Dean/VP, Program Review Committee, etc.

Recommendation	Comments
1. Cited areas of concern from last year stated "Clearly the program director has developed an excellent and highly regarded program with minimal administrative support. The director has a full teaching load while overseeing the community outreach, online class preparation, monitoring and maintenance. Furthermore, significant time is required to coordinate the mandated ratio of one student per hospital. . . ."	As the only full time instructor/director the cited tasks from the left hand column is a portion of the responsibilities. Not mentioned is a greater level of administrative tasks, overseeing all part time instructors, all hybrid and online development, grade filing, book orders, curriculum development, total program course oversight, tracdat, 3CMS, banner, hospital and clinical education partners assessments, student onsite clinical assessments, student document development, tracking, programmatic accreditation annual reports, student counseling, meeting with prospective candidates, advisory, clerical duties, faculty and hospital clinical

	<p>instructor training and intervention, outreach, and much more. There continues to be minimal administrative support.</p> <p>Much of the administrative tasks including state and college mandates are completed on personal time and during vacations/breaks.</p>
<p>2. There were no recommendations for improvement from the previous PR cycle.</p>	

a. **After reviewing the data, what would you like to highlight about your program?**

As one of two CAAHEP (Commission on Accreditation of Allied Health Education Programs) accredited Diagnostic Medical Sonography programs in northern California there is considerable support from the medical community. Internal and external assessments, surveys, and board examination outcome continue to show a program which is highly regarded with excellent student obtainment of a well-paying job. Graduates demonstrate competencies and skill sets that meet and exceed industry standards. It should be noted the other CAAHEP accredited DMS Program is an internal program through Kaiser Hospital in the east bay and *not* what is reflected in the EMSI report.

The program is well represented by gifted part-time instructors who are highly regarded in his/her fields and brings to the classroom cutting edge knowledge. On the flip side their limited interaction beyond the classroom places a greater level of responsibility on the single full time director/instructor.

DMS students have a higher level of prior educational and medical backgrounds as to meet accreditation and national board examination requirements. This is positive as the profession demands a higher level of skills and knowledge. Nearly 70% of incoming students have a BS degree and others enter with 1-3 AA/AS degrees or a combination of both. Overall success is part of this equation.

The hard won respect and relationship with clinical education partners, employers, industry, manufacturing, management, and physicians who often cite the quality of the DMS program and its graduates and welcomed and serve to validate the rigor of the program. On the flip side some of the clinical education partners feel comfortable to “sit out” from student training as they believe the program will always be available. This requires ongoing conversations to encourage continued and uninterrupted clinical training for students.

Outreach is an important role of the program director. Presentations to students are part of the direct onsite outreach to the “feeder” programs such as the various radiology technology programs within a 150 mile radius. Often these students are first in their families to go to college, have a varied cultural background, and a history of completion of ESL classes.

The DMS program has a long history for *distance learning partnership* with Santa Rosa Jr College. DMS students of FC have the opportunity to participate with distance learning lectures via live TV. Grant funding for the in classroom specialist expired several years ago. There is concern funding support from SRJC may be problematic in the future. The DMS program supports more distance learning opportunities and welcomes conversation to establish new relationships.

Challenges include concerns about the budget and an ongoing attempt to recapture funding lost during the past few years. Another concern is the volume of work creep/increase placed upon program directors without adequate release time. This is particularly difficult in programs with a single full time faculty/program director.

Another challenge is the increasing demands and expectations placed upon medical programs, its faculty, and students. There is an uptick to require college faculty to meet the hospitals immunizations, background check, and to provide other personal data as if the college faculty is an employee of the hospital. In addition, there is a requirement college faculty complete the hospitals employee training onsite or in some cases online. Individual hospital training can range from 7 hours to specific days and/or up to 3 days in length. Costs to updating immunizations, background checks, and other requirements need to be considered. Some are annual requirements. This is true of medical program faculty at DeAnza College and other schools. It is not unique to Foothill College.

It is exciting to read the Bureau of Labor Statistics Employment Projects as well as Career Builder and Economic Modeling Specialist reports published in December and November 2013. Citation is listed below.

[Ultrasound Makes #6 on the Bureau of Labor Statistics Employment Projections list](#)

Diagnostic Medical Sonographers are projected to increase from 59 thousand to 86 thousand by 2022, a 46% increase over the period, which makes it the #6 highest growth profession. Median annual wage for sonographers in 2012 was pegged at \$65,860. December 19, 2013. <http://www.bls.gov/news.release/pdf/ecopro.pdf>

[Diagnostic medical sonography predicted to be 6th fastest growing job over the next 5 years](#)

Ranking #6 in the CareerBuilder and Economic Modeling Specialists recent projections of new jobs, Sonography is expected to grow 15%. (2013-2017) November 18, 2013.

<http://www.beckershospitalreview.com/workforce-labor-management/26-healthcare-jobs-among-50-projected-fastest-growing.html>

Section 9: Feedback and Follow Up

This section is for the Dean to provide feedback.

a. Strengths and successes of the program as evidenced by the data and analysis:

The Diagnostic Medical Sonography program has an exceptional track record for high student success rates (>97%). This has been a consistent trend thru the last 3 years and is realized in targeted and non-targeted students. Thus, with regard to student equity, there is no disparity in student outcomes. Indeed, all students succeed and all students pass their national exams irrespective of their ethnicity.

This program is unique in that there is a distance learning component that occurs for students in Santa Rosa. There is need for this type of instruction for Allied Health programs since not all community colleges offer them and we are currently set up to with AV equipment for delivering instruction to remote sites. Furthermore at the new Education Center, there will also be this type of state of the art AV equipment and this represents a way for our Allied Health programs to grow beyond the confines of the availability of local clinical/hospital internships which currently restrains any growth in enrolment.

b. Areas of concern, if any:

As with all the Allied Health programs, I am concerned with burn out and fatigue/frustration of the faculty due to the high stress and activity level involved in coordinating and maintaining programs at this high success level. Given the salary level of individuals in DMS in clinic settings, it is challenging to find competent part time faculty. This poses a problem for the program director who teaches overloads to ensure that the quality of instruction and clinical training are maintained.

c. Recommendations for improvement:

The program director should begin advertising for DMS part time faculty and contacting her colleagues about any individuals (or past students) who might be interested in teaching. Sharing some of the teaching and clinical responsibilities with other competent faculty would relieve some of the burdon for the program director. Furthermore, the program director should consider using the student worker that we have in the BHS Division Office to help support her clerical work.

d. Recommended next steps:

Proceed as planned on program review schedule

Further review/Out of cycle in-depth review

Upon completion of section 9, the Program Review should be returned to department faculty and staff for review, then submitted to the Office of Instruction and Institutional Research for public posting. See timeline on Program Review Cover Sheet.