POLYSOMNOGRAPHIC TECHNOLOGY (CIP 51.0903)

INSTRUCTIONAL PROGRAM REVIEW

I. Program Relationship to the College Mission and Strategic Plan

A. Describe how the program supports the college mission and core values.

Mission Statement: *Collin County Community College District is a student and community-centered institution committed to developing skills, strengthening character, and challenging the intellect.*

Through its campuses, centers and programs Collin County Community College District fulfills its statutory charge to provide:

- o Technical programs, leading to associate degrees or certificates, designed to develop marketable skills and promote economic development.
- o Workforce, economic, and community development initiatives designed to meet local and statewide needs.

The Polysomnographic Technology program fulfills the college mission statement by offering students the necessary education and training to successfully obtain an associate degree or certificate in Polysomnographic Technology and pass the national board registry exams for the field of polysomnography, which are the Registered Polysomnographic Technologist (RPSGT) and Registered Sleep Technologist (RST) exams. This level of training and certification is necessary for employment in the field.

Core Values: At Collin College We have a passion for:

- Learning
- Service and Involvement
- Creativity and Innovation
- Academic Excellence
- Dignity and Respect
- Integrity

The Polysomnographic Technology program embodies the core values through instructor and student involvement. The program adheres to a regimented format and program specific rules focusing on dignity and respect, integrity and learning. Learning is accomplished in many ways, including active student participation in mock sleep studies in the on-campus sleep studies lab utilizing live volunteers, which requires creativity and innovation for successful completion. Students learn through service and involvement by participating in campus fundraisers and community events. The program strives for academic excellence in its standards by providing a very rigid and in-depth curriculum that prepares students for the constant growth and change in the field of polysomnography.

B. Describe how the program supports the college strategic plan.

The Polysomnographic Technology program supports the strategic plan in the following ways:

Vision 2016 Goal 1: *Improve academic success by implementing strategies for completion.* This goal is accomplished through ongoing student advising and curriculum revisions.

Vision 2016 Goal 2: *Provide access to innovative higher education programs that prepare students for constantly changing academic, societal and career/workforce opportunities.* This is accomplished by increased area employer representation on the Polysomnographic Technology Advisory Committee and a partnership agreement with University of North Texas where students can pursue a bachelor of applied science degree following completion of the program.

Vision 2016 Goal 3: *Engage faculty, students and staff in improving a district-wide culture of adherence to the Collin College Core Values.* For the Core Value of Learning, the program provides wellness lectures on the effects of sleep deprivation and poor sleep hygiene to faculty, staff, students, and community at all of the college's main campuses. For Service and Involvement, the program's student organization has engaged in charitable collections, such as collecting bedding materials for the Samaritan Inn. The program also invites volunteers from outside of the program to participate in sleep studies performed by polysomnographic technology students in the on-campus sleep lab, which provides volunteers with a screening for potential sleep disorders.

Vision 2016 Goal 4: *Enhance the College's presence in the community by increasing awareness, cultivating relationships, building partnerships and developing resources to respond to current and future needs.* One of the ways the program increases awareness is through creation of a program Facebook page which is linked through the department website. Another way is by continuing to cultivate relationships with area sleep labs, adding clinical sites, and increasing employer representation on the Advisory Committee. The program coordinator is currently serving on two task forces for the national credentialing organization for the field of polysomnography, the Board of Registered Polysomnographic Technologists (BRPT). Those task forces serve to create a bridge between the clinical side and the educational side of the field of polysomnography, positioning the program at point of influence within the polysomnography community. The program also raises awareness of the college and the program by having the program coordinator and medical director speak on the subject of sleep at statewide conferences. One of the program's students was recently recognized nationally by being named the recipient of an exclusive national scholarship in polysomnography that is only given to one student annually. This award helped to increase national awareness of Collin College and the program.

II.   Program Curriculum

A. Attach all course syllabi with SCANS included. (*See Appendix A)*

B. Show evidence that the THECB standards have been met.

1. Credit Hour Standard: *The program originated at 67 credit hours, but has since cut the total credit hours down to 60 credit hours due to the state's requirement for associate degree level programs. This revised 60-hour curriculum will be implemented effective Fall 2014. See Appendix B for the 60-hour curriculum outline.*
2. Completers: *Polysomnographic Technology will graduate its first cohort of 10 students in May 2014.*
3. Licensure Standard: *Not applicable as there is no state licensure requirement for Polysomnographic Technology in Texas.*

C. Current Curriculum

1. Is the program curriculum up-to-date?

   a. Compared to similar programs at peer schools.

   Yes, our program curriculum is comparable to that which is offered by peer schools (see Appendix C).

   b. Compared to the first two years of baccalaureate requirements in related fields at Collin College's top ten transfer institutions or existing articulation agreements.

   There are no baccalaureate programs in the field of polysomnography currently. However, students can further their education and get a general Bachelor of Applied Science (BAAS) degree through the University of North Texas after being awarded the Associate of Applied Science (AAS) degree at the end of the AAS track of the program through a direct transfer agreement with that university.

   c. Any professional association standards or guidelines that may exist relevant to the program.

   See Appendix D for a list of minimum standards and thresholds from the Committee on Accreditation for Polysomnographic Technologist Education (CoA PSG) for accredited programs.

2. Advisory Committee

   a. How many employers? *9 employers represented.*

   1. How many attended the last two meetings? *Fall 2013: 5; Spring 2013: 7*
   2. Have they contributed any resources to the program? *Yes. In addition to the items listed below, Advisory Committee members have shown support to the program by participating in student club fundraisers.*

Company/Employer	Contribution
ResMed Corporation	CPAP Masks
ResMed Corporation	VPAP Tx Positive Airway Pressure titration machine
Texas Neurology, PA	Supplies for fundraiser gift basket
Dr. David Ostransky	Lecture time
Dr. David Ostransky	Sample of a paper polysomnogram study
Dr. Margaret Mike	Lecture time

b. Status of Advisory Committee curriculum recommendations:

All of the committee members have provided feedback and approval on curriculum revisions and updates on competencies needed in the program based on new information from current practice within the field of polysomnography. Examples of the recommended updates include the committee suggested addition of education on alternative therapies for the treatment of sleep apnea. This education has been incorporated into the PSGT 2411 (Polysomnography II) curriculum. In addition, the program has purchased a dental titration device, home sleep testing device, and transcutaneous carbon dioxide monitor as recommended by the committee.

3. SCANS matrix / curriculum map (*See Appendix E)*

D. Completion Barriers in Program Curriculum

1. Identify barriers to program completion.

a. Program course retention rate:

Course	2012-2013	2013-2014
PSGT 1205	100%	Spring 2014 Course
PSGT 1215	93%	100%
PSGT 1310	93%	100%
PSGT 1340	100%	Spring 2014 Course
PSGT 1360	92%	Summer 2014 Course
PSGT 1400	100%	Spring 2014 Course
PSGT 2205	N/A – 2nd year offering	91%
PSGT 2250	N/A – 2nd year offering	Spring 2014 Course
PSGT 2271	N/A – 2nd year offering	Spring 2014 Course
PSGT 2272	N/A – 2nd year offering	Spring 2014 Course
PSGT 2360	N/A – 2nd year offering	91%
PSGT 2361	N/A – 2nd year offering	Spring 2014 Course
PSGT 2411	N/A – 2nd year offering	91%
RSPT 1237	100%	Spring 2014 Course
RSPT 1307	93%	100%
RSPT 2139	N/A – 2nd year offering	Spring 2014 Course

** Note: Data not available yet for Spring 2014 or Summer 2014 offerings.

b. Is there sufficient course enrollment to support a stable cycle of required course offerings?

Course Enrollment:

Course Number	2012-2013	2013-2014
PSGT 1205	12	Spring 2014 Course
PSGT 1215	14	12
PSGT 1310	14	12
PSGT 1340	12	Spring 2014 Course
PSGT 1360	11	Summer 2014 Course
PSGT 1400	12	Spring 2014 Course
PSGT 2205	N/A – 2nd year offering	11

PSGT 2250	N/A – 2nd year offering	Spring 2014 Course
PSGT 2271	N/A – 2nd year offering	Spring 2014 Course
PSGT 2272	N/A – 2nd year offering	Spring 2014 Course
PSGT 2360	N/A – 2nd year offering	11
PSGT 2361	N/A – 2nd year offering	Spring 2014 Course
PSGT 2411	N/A – 2nd year offering	11
RSPT 1237	17	Spring 2014 Course
RSPT 1307	35**	37**
RSPT 2139	N/A – 2nd year offering	Spring 2014 Course

**Note: RSPT 1307 is a shared class with the Respiratory Care Program.
***Note: Data not available yet for Spring 2014 or Summer 2014 offerings.

Course enrollment for all program courses is below 15 as the program has lost students in both cohorts. Our first cohort started with 14, but four students have withdrawn due to personal reasons. We accepted 15 students for the second cohort, but had three students withdraw for personal reasons (return to military active duty, childcare issues) prior to the program starting. There are currently ten students enrolled in the AAS Class of 2014, and there are currently 12 students enrolled in the AAS Class of 2015. One of the students who withdrew for personal reasons in the first cohort has declared intention to return to the program, which will increase enrollment for the AAS Class of 2015 to 13 students. The enrollment growth plan includes increasing the number of students accepted to 18 to allow for possible attrition in order to maintain a cohort of at least 15 students. The revamped curriculum proposal to drop the program credit hours requirement to 60 credit hours will also allow students to complete prerequisite courses in one semester, making students eligible for enrollment faster.

c. Are the required courses in the program offered at intervals appropriate to enable students to complete "on time" if a student was enrolled full-time and followed the degree plan? *Yes.*

d. Identify any required program courses which frequently require course substitutions to enable students to complete an award.

If the student completed the Respiratory Care AAS degree at Collin College prior to that program's requirement of HPRS 1204 and the student elects to go with the AAS degree track for Polysomnographic Technology, the HPRS 1204 requirement can be substituted with RSPT 1201 as HPRS 1204 was developed utilizing many components of the RSPT 1201 course.

2. Program changes planned to remove or mitigate any observed barriers:

Program promotion seems to be the biggest observed barrier as many students are still unaware that the program exists. The program will be participating in promotional events such as college/career/health fairs, community wellness lecture series on sleep, high school tours of the sleep lab, information sessions, and new student orientations throughout the year. These efforts are done to raise community and student awareness of the offering of the program in the hope of raising application and admission numbers for future program cohorts. A shortened window to complete prerequisites will allow students to apply and enroll for the program sooner than previous cohorts. We are also looking at ways to better reach our target audience with each track, such as a part-time option for completion of the Certificate track so that those working full-time can complete the program.

III. Program Information: Program Literature and Electronic Sites

A. Program website URL:
http://www.collin.edu/sleep

B. Program literature:

Table III: Program Literature Review

Title	Type	Date Last Reviewed and Updated
2013-2014 Collin College Catalog	Online Catalog http://www.collin.edu/academics/20132014catalog.pdf	10/17/2013 (Reviewed 12/2013)
2013-2014 Collin College Catalog	Bound Paperback Catalog	11/4/2013 (Reviewed 12/2013)
Degree Plans, Core, and Areas of Study	Website http://www.collin.edu/academics/programs/	12/12/2013 (Reviewed 12/2013)
Polysomnographic Technology – Collin College	Color Brochure	3/8/2013 (Reviewed 12/2013)
Degree Plans and Programs	Website http://www.collin.edu/academics/programs/PolysomnographicTech.html	8/8/2013 (Reviewed 12/2013)
Collin College Request for Degree Plan/Certificate	Website http://www.collin.edu/shared/shared_admissions/pdf/degplan-200910.pdf	11/26/2013 (Reviewed 12/2013)
Central Park Campus Welcome	Website http://www.collin.edu/campuses/centralpark/index.html	8/12/2013 (Reviewed 12/2013)
Polysomnographic Technology Program Main Information	Website http://www.collin.edu/sleep	12/13/2013 (Reviewed 12/2013)
Polysomnographic Technology Program Application Packet	Website PDF http://www.collin.edu/sleep/2014_Polysomnography_Application_Packet.pdf	12/18/2013 (Reviewed 12/2013)
Polysomnographic Technology Program Accreditation	Website http://www.collin.edu/sleep/Accreditation.html	12/13/2013 (Reviewed 12/2013)
Polysomnographic Technology Program Admission Steps	Website http://www.collin.edu/sleep/AdmissionSteps.html	12/13/2013 (Reviewed 12/2013)
Polysomnographic Technology Advisory Committee	Website http://www.collin.edu/sleep/AdvisoryCommittee.html	12/13/2013 (Reviewed 12/2013)
Polysomnographic Technology Clinical Affiliates	Website http://www.collin.edu/sleep/ClinicalAffiliates.html	12/18/2013 (Reviewed 12/2013)

Polysomnographic Technology Curriculum	Website http://www.collin.edu/sleep/Curriculum.html	12/13/2013 (Reviewed 12/2013)
Polysomnographic Technology Information Sessions	Website http://www.collin.edu/sleep/InformationSessions.html	12/13/2013 (Reviewed 12/2013)
Polysomnographic Technology Instruction Team	Website http://www.collin.edu/sleep/InstructionTeam.html	12/13/2013 (Reviewed 12/2013)
PSB Testing Information	Website http://www.collin.edu/sleep/PSBTesting.html	12/13/2013 (Reviewed 12/2013)
Information Session Handouts	Program Handouts	Updated – 9/23/2013

IV. Employment for Program Graduates

A. Provide evidence of local demand for program graduates.

The program currently does not have any graduates. Members of the Polysomnographic Technology Advisory Committee have informed the program that they foresee all members of the AAS Class of 2014 securing jobs upon graduation from the program due to market need. The program is communicating with advisory committee members and clinical affiliates on job placement opportunities for graduates and hopes to see 100% job placement for the AAS Class of 2014 upon their graduation.

B. What percent of graduates secure employment in the field? % employed

Not applicable as the program will not graduate its first cohort until May 16, 2014. However, 20% of the AAS Class of 2014 has already secured part-time positions in the field of polysomnography while they complete their studies.

C. Average salary of program graduates

Not applicable as the program will not graduate its first cohort until May 16, 2014. According to Salary.com on 12/17/2013, the median salary for registered sleep technologists in Dallas, TX is $49,775.

D. Average number of months to employment

Not applicable as the program will not graduate its first cohort until May 16, 2014. However, 20% of the AAS Class of 2014 has already secured part-time positions in the field of polysomnography while they complete their studies.

E. What actions do the program personnel take to assist the college in obtaining information required by Title IV and Gainful Employment so that students enrolled in this program are able, if otherwise eligible, to receive federal financial aid?

Information is collected and sent to Dr. Tom Martin, Associate Vice President of Institutional Research, as requested to satisfy this requirement.

F. What additional actions, if any, are needed to improve the quality of this program's information needed for college federal reporting requirements?

No additional action is currently needed.

G. Program Data

- **Student/Faculty Ratios**

Course Number	2012-2013	2013-2014
PSGT 1205 (Lecture)	12:1	12:1
PSGT 1215 (Lecture)	14:1	12:1
PSGT 1310 (Lecture and Lab)	14:1	12:1
PSGT 1340 (Lecture)	12:1	12:1
PSGT 1360 (Clinical)	2:1 (Preceptors used)	Summer 2014 Course
PSGT 1400 (Lecture)	12:1	12:1
PSGT 1400 (Lab)	6:1	6:1
PSGT 2205 (Lecture and Lab)	N/A – 2nd year offering	11:1
PSGT 2250 (Lecture and Lab)	N/A – 2nd year offering	10:1
PSGT 2271 (Lecture)	N/A – 2nd year offering	10:1
PSGT 2272 (Lecture and Lab)	N/A – 2nd year offering	10:1
PSGT 2360 (Clinical)	N/A – 2nd year offering	2:1 (Preceptors used)
PSGT 2361 (Clinical)	N/A – 2nd year offering	2:1 (Preceptors used)
PSGT 2411 (Lecture)	N/A – 2nd year offering	11:1
PSGT 2411 (Lab)	N/A – 2nd year offering	5:1
RSPT 1237 (Lecture)	17:1	14:1
RSPT 1307 (Lecture and Lab)	35:1**	37:1**
RSPT 2139 (Lab)	N/A – 2nd year offering	5:1

** Note: RSPT 1307 was a shared class with the Respiratory Care Program students.
***Note: Data not available yet for Summer 2014 offerings.

- Average Class Size: 12

- **Course Enrollment History for All Program Courses**

Course Number	2012-2013	2013-2014
PSGT 1205	12	12
PSGT 1215	14	12
PSGT 1310	14	12
PSGT 1340	12	12
PSGT 1360	11	Summer 2014 Course
PSGT 1400	12	12
PSGT 2205	N/A – 2nd year offering	11

PSGT 2250	N/A – 2nd year offering	10
PSGT 2271	N/A – 2nd year offering	10
PSGT 2272	N/A – 2nd year offering	10
PSGT 2360	N/A – 2nd year offering	11
PSGT 2361	N/A – 2nd year offering	10
PSGT 2411	N/A – 2nd year offering	11
RSPT 1237	17	14
RSPT 1307	35**	37**
RSPT 2139	N/A – 2nd year offering	10

** Note: RSPT 1307 was a shared class with the Respiratory Care Program students.

***Note: Data not available yet for Summer 2014 offerings.

- **Grade Distributions**

Semester Offered	Course Number	# of A's	# of B's	# of C's	# of D's	# of F's	Withdrew	Number Enrolled
Fall 2012	PSGT 1215	6	7	0	0	0	1	14
Fall 2012	PSGT 1310	7	6	0	0	0	1	14
Fall 2012	RSPT 1307	3	7	1	0	0	1	12
Spring 2013	PSGT 1205	6	5	1	0	0	0	12
Spring 2013	PSGT 1340	8	4	0	0	0	0	12
Spring 2013	PSGT 1400	7	5	0	0	0	0	12
Spring 2013	RSPT 1237	7	9	1	0	0	0	17
Summer 2013	PSGT 1360	11	0	0	0	0	1	12
Fall 2013	PSGT 1215	9	3	0	0	0	0	12
Fall 2013	PSGT 1310	8	4	0	0	0	0	12
Fall 2013	PSGT 2205	2	8	0	0	0	1	11
Fall 2013	PSGT 2360	10	0	0	0	0	1	11
Fall 2013	PSGT 2411	6	4	0	0	0	1	11
Fall 2013	RSPT 1307	7	4	1	0	0	0	12

- **Contact Hours Taught by Full-Time and Part-Time Faculty**

Semester	% Full-Time	% Part-Time
Fall 2012	100%	0%
Spring 2013	100%	0%
Summer 2013	100%	0%
Fall 2013	94%	6%

V.   Program Resources

A. Partnerships and Relationship Building

Table V-A: Partnership Resources

University/Business & Industry	Partnership Type	Estimated Market Value
University of North Texas	BAAS Bridge Agreement	N/A
Dr. David Ostransky	Medical Director / Physician Lecturer	N/A
ResMed Corporation	Equipment Donor	$4,000
Carl Perkins Grant	Grant-funded Equipment	$28,600

B. Employees

Table V-B: Employee Resources

Employee Name	Role in Program	Credentials	Professional Development Since Last Program Review
Amber Allen	Program Coordinator	BA, RPSGT, RST	BRPT Symposium 2011 SLEEP 2012 BRPT Symposium 2012 TSSP Annual Conference 2012 SLEEP 2013 BRPT Symposium 2013
Karen Smart	FT Faculty/Clinical Coordinator	MS, RPSGT	TSSP Annual Conference 2012 BRPT Symposium 2013
Desiree Barnard-Peterson	PT Associate Faculty	BBA, RN, RPSGT	TSSP Annual Conference 2012
David Ostransky	Medical Director	DO, D. ABSM, FCCP, FACOI	Speaker – TSRC Annual Conference 2013

C. Facilities and Resources

Table V-C-1: Facilities Resources

Room/Office Location and Designation	Size	Type	Special Characteristics	Meets Current Needs	Will Meet Needs for Next 5 Years	Describe Additional Needs for Any "No"
CPC Room A202	280 sq ft	Computer Lab	Health Sciences Computer Lab	Yes	Yes	
CPC Suite A111	702 sq ft	Office Suite	Serves as the program's Sleep Studies Lab and is wired for sleep diagnostic equipment.	Yes	No	Current sleep lab is not to industry standards, too small for student instruction, and not sound proof to allow instructors to teach students without waking up volunteers. This will be remedied in the new Health Sciences Building with the program's new sleep lab.

CPC Room B203-A	150 sq ft	Office	Office Space for FT Faculty/Clinical Coordinator Karen Smart	Yes	Yes	
CPC Room B203-B	150 sq ft	Office	Office Space for Program Coordinator Amber Allen	Yes	Yes	
CPC Room B206-A	625 sq ft	Classroom		Yes	Yes	
CPC Room B206-B	625 sq ft	Classroom		Yes	Yes	
CPC Room E313	1610 sq ft	Respiratory Care Lab	Utilized for Skills Lab	Yes	No	As additional labs are added for the Certificate track, it will be difficult to coordinate times when the lab is not being utilized.

Table V-C-2: Equipment, Supplies, Maintenance/Repairs

Current Equipment Item or Budget Amount	Meets Current Needs	Will Meet Needs for Next 5 Years	For Any No, Justify Needed Equipment or Budget Change
Nihon Kohden Sleep Diagnostic System	Yes	No	Software update is needed with the implementation of Windows 7 on all college computers
Cadwell Easy III Sleep Diagnostic System	Yes	No	Software update will be needed to keep equipment functioning
ResMed VPAP Tx PAP Titration Devices	Yes	Yes	
Nonin RespSense Capnographs	Yes	Yes	
Actiwatches	Yes	Yes	
MATRx Dental Titration Device	Yes	Yes	
TOSCA Transcutaneous Carbon Dioxide Monitor	Yes	Yes	
Nomad Home Sleep Testing Device	Yes	Yes	
Full-Size Bed	Yes	Yes	
Twin-Size Bed	Yes	Yes	
Printer	Yes	Yes	

Table V-C-3: Financial Resources

Source of Funds	Meets Current Needs	Will Meet Needs for Next 5 Years	For Any No, Explain Why	For Any No, Identify Expected Source of Additional Funds
College Budget	Yes	Yes		

VI.   Program Planning

A. Link or attach the last two CIPs. *(See Appendix F for Program Outcomes and Course Alignment as the program has no data yet to measure to form a CIP.)*

B. Next CIP

Since the program has not graduated any students yet, there is no data to analyze to form a new CIP. We have established criteria for assessing program outcomes on the Program Outcomes and Course Alignment forms in Appendix F, and once we have this data, we can formulate a new CIP to reflect this data.

C. Within the program's base budget, what are the plans to do one or more of the following within the next five years?

Increase and retain enrollment. Our goal is to increase admission numbers for the next cohort to a minimum of 15 students for the cohort starting Fall 2014 and may expand that number to 18 depending on the number of applicants meeting program admission criteria. The program is continuing to work to raise awareness of the offering of this program through promotional events, such as program information sessions at all Collin College campuses, community wellness lecture series, and other promotional avenues to increase program interest, as well as application and admission numbers. By changing the prerequisites for the AAS track, students are able to complete prerequisites in one semester, allowing them to be eligible for admission sooner than in the past two admission cycles.

Update facilities. The program will be moving to the new Health Sciences building upon construction completion. There, the program will be expanding the sleep lab size from a two-bed lab to a four-bed lab. The sleep lab will be completed to American Academy of Sleep Medicine standards, which our current lab is not following. Meeting these lab standards will allow us to more effectively prepare students for the clinical component of the program.

D. What continuous improvement plans do you have, if any, that require additional resources beyond the program's base budget?

There are no plans currently that require additional resources beyond the program's base budget.

Appendices

Appendix A	
PSGT 1205 Syllabus	PSGT 2271 Syllabus
PSGT 1215 Syllabus	PSGT 2272 Syllabus
PSGT 1310 Syllabus	PSGT 2360 Syllabus
PSGT 1340 Syllabus	PSGT 2361 Syllabus
PSGT 1360 Syllabus	PSGT 2411 Syllabus
PSGT 1400 Syllabus	RSPT 1237 Syllabus
PSGT 2205 Syllabus	RSPT 1307 Syllabus
PSGT 2250 Syllabus	RSPT 2139 Syllabus

Appendix B	
AAS 60 Hour Proposal	

Appendix C	
AAS Program Comparison	Certificate Program Comparison

Appendix D	
CoA PSG Thresholds	

Appendix E	
SCANS Matrix – AAS track	SCANS Matrix – Certificate Track

Appendix F	
AAS Program Outcomes	Certificate Program Outcomes