Oakland Community College

Curriculum Review

Reports Supporting the Review of the CAD Machine Tool Technology Program
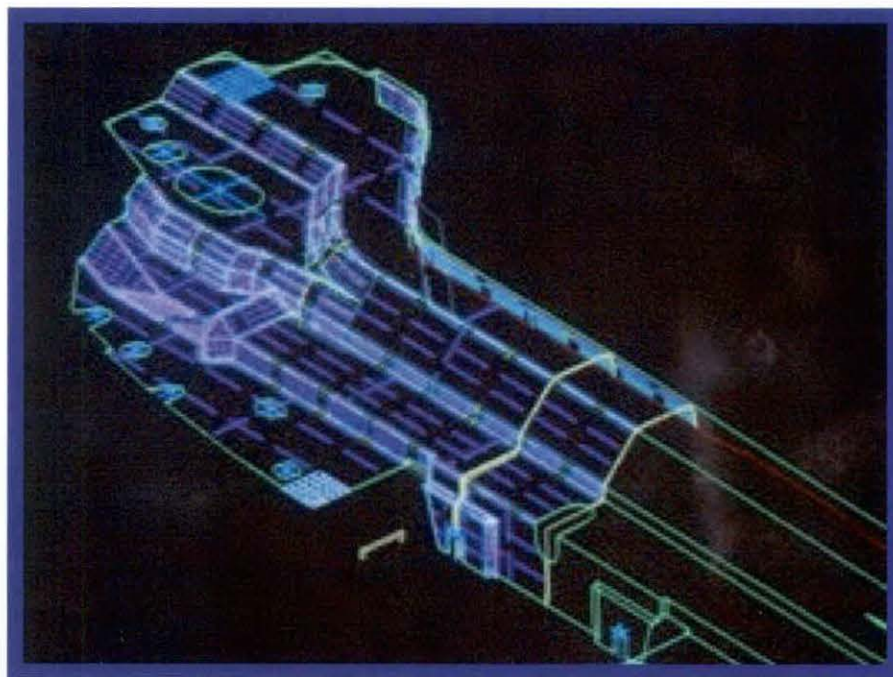
Prepared by the Office of Assessment & Effectiveness
August 2006

OAKLAND
COMMUNITY
COLLEGE

C.A.D.

Program Review

COMPUTER AIDED DESIGN
2006

Part 1

Core Review

CORE REVIEW
B. SYLLABUS REVIEW, CONTINUED

Coordinator: After reviewing the Data Analysis forms on all the courses in the Discipline/Program, please summarize your analysis of whether or not there are course syllabi in your Discipline/Program that need revision due to inconsistencies or omissions, or other issues.

SYLLABUS REVIEW SUMMARY:

- Full time faculty and all adjuncts in the CAD program follow the course syllabus put together by the discipline; therefore there is no discrepancy in course syllabus from one adjunct to another.
- All mandatory items (per FMA and Federal Law) are listed in all eighteen course syllabi.
- All recommended items (per Academic Senate) are included except list of supportive materials, which has a zero percent inclusion and in some cases "Disclaimer Allowing for Reasonable Revisions".
- In the list of optional items all course syllabi list three out of seven relevant items with a one hundred percent inclusion.
- The discipline will work to add additional optional and recommended items where applicable.

CORE REVIEW
C. ENROLLMENT TRENDS AND STUDENT RETENTION

Coordinator: The Dashboard report on your Discipline/Program will collect the necessary data in regard to Enrollment Trends and Student Retention. Use this form to review that data in the following areas:

Enrollment (Use the Dashboard data on Average Section Size, Sections Filled to Capacity, Percent of Completed Sections, Percent Change in Headcount, and Percent Change in Credit Hours to discuss this area.)

The Institutional Research Office has provided discipline with the report in the following areas:

- In the last ten years the program has graduated students in the following categories:
  - CAD/ Vehicle Design Program option 248
  - CAD/ Computer Aided Engineering Program....................................161
  - CAD/Machine Tool Program 62
  - The exact number of certificates awarded though not high, is not known at this point.

- There has been a decrease in the number of credit hours taken in CAD courses in the four-year span dating from 2001-2005 the credit hour count dropped from 5,669 to 3,801. This decline is unfortunately mainly due to outsourcing, and the poor outlook of the domestic auto industry.
- During the 2004-2005 academic year the CAD sections were filled to only 64.7% of capacity, which is below the college-wide figure of 81.3%. Partly, this was because of the number of sections that were offered at fifteen max. due to equipment limitations. This problem will be rectified as those sections will now be offered at a max. of 27.

Minority Students (Use the Dashboard data on Minority Students to discuss this area.)

- The percent of the minority students enrolled in CAD courses is 25.7%, generally inline with the college-wide figure of 27.8%

- CAD courses have exceeded the benchmark for the student course completion rate, indicating student success.
- 78.6% of all students successfully pass CAD courses with a grade of C or higher, which is above the college-wide average of 68.6%.
- The percent of student withdrawals from CAD courses is 10.8%, which is below the college-wide average of 17.5%.
- The percent of incompletes in CAD (1.8%) is the equivalent to the college-wide percentage of incompletes.

The above data reflects that the program, academically appears to be doing well.

ENROLLMENT TRENDS AND STUDENT RETENTION REVIEW SUMMARY:

The student retention in the program at this point is steady and would probably remain at these levels in the foreseeable future. The discipline has recently updated a few courses to meet the newly emerging requirements in the field of design.

The discipline has also been involved in the following recruitment activities:
1) Articulation with High Schools and OTC's through tech prep consortium.
2) Involvement in campus open house as well as department open house
3) 2+2 agreements with area universities
4) Presentations at business and industry meetings
5) Hosting tours for business/industry and educational institutions.

DATA ANALYSIS

CORE REVIEW
D. DISCIPLINE/PROGRAM NEEDS AND RESOURCES

Coordinator: Please summarize the needs, resources, and curriculum actions indicated on the Data Collection forms.

What resources or services does your Discipline/Program need?

The Discipline/Program needs the following:

- Marketing Efforts, in order to inform the community of the program

- Support of the administration to prevent duplication of CAD courses by other disciplines in order to consolidate enrollment in existing courses.

- A scanner, in order to incorporate reverse engineering techniques.

- Training of full-time and adjunct faculty on newly released versions of CAD software packages.

What curriculum revisions or development does your Discipline/Program see as beneficial to instruction?

The following revisions/development would be seen as beneficial to instruction in the program:

- A smaller student to teacher ratio in a course that requires a lot of individual attention in order to improve the quality of instruction, student satisfaction, and success.

- Major revision of certain existing courses.

- Better facilities would also enhance the program.

DISCIPLINE/PROGRAM NEEDS AND RESOURCES REVIEW SUMMARY:

Overall, the program requires a few major and minor enhancements and adjustments in order to improve the quality of instruction, as outlined above. These would be beneficial to the success of the program as a whole.

CORE REVIEW
A. COURSE CATALOG DESCRIPTION

Coordinator: Complete this form after reviewing the Course Catalog Data Collection forms from members of your Discipline/Program on all of the courses listed in the Catalog.

List every course that is listed in the catalog. Check where revision is indicated or no revisions seem necessary. Please, add lines where needed.

	Revision needed	No Revision necessary
Course Number 1100	✓	—
Course Number 1200	—	✓
Course Number 1150	—	✓
Course Number 2110	—	✓
Course Number 1450	—	✓
Course Number 1000	✓	—
Course Number 1501 – 1509	—	✓
Course Number 2101	—	✓
Course Number 2102	—	✓
Course Number 1350	—	✓

COURSE CATALOG DESCRIPTION REVIEW SUMMARY:

CORE REVIEW
A. COURSE CATALOG DESCRIPTION

Coordinator: Complete this form after reviewing the Course Catalog Data Collection forms from members of your Discipline/Program on all of the courses listed in the Catalog.

List every course that is listed in the catalog. Check where revision is indicated or no revisions seem necessary. Please, add lines where needed.

	Revision needed	No Revision necessary
Course Number 2140	✓	—
Course Number 2150	—	✓
Course Number 2160	✓	—
Course Number 2190	✓	—
Course Number 2201	—	✓
Course Number 2250	—	✓
Course Number 2300	—	✓
Course Number 2301	—	✓
Course Number 2350	—	✓
Course Number 2351	—	✓

COURSE CATALOG DESCRIPTION REVIEW SUMMARY:

CORE REVIEW
A. COURSE CATALOG DESCRIPTION

Coordinator: Complete this form after reviewing the Course Catalog Data Collection forms from members of your Discipline/Program on all of the courses listed in the Catalog.

List every course that is listed in the catalog. Check where revision is indicated or no revisions seem necessary. Please, add lines where needed.

	Revision needed	No Revision necessary
Course Number 2460	___	✓
Course Number 2500	___	✓
Course Number 2601	___	✓
Course Number 2701	___	✓
~~Course Number 2800~~	___	___
Course Number 2801	___	✓
Course Number_____	___	___
Course Number_____	___	___
Course Number_____	___	___
Course Number_____	___	___

please disregard

COURSE CATALOG DESCRIPTION REVIEW SUMMARY:

CORE REVIEW
B. SYLLABUS REVIEW

DATA ANALYSIS

Coordinator: Use a separate sheet for each course.   CAD 1100

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	100
General Education Attributes (where pertinent)	—
Required Books and Supplies	100
List of Supportive Materials (where available)	100
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	—
Disclaimer Allowing for Reasonable Revisions	Ø
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	100
Applicable Forms Pertinent to Course	—
Reference to Student Policies in OCC Catalog	Ø
Policy on Use of Computing Resources	Ø
Description of Required Computing Skills	Ø
Policy on Plagiarism	100
Student Bill of Responsibilities	100

CORE REVIEW
B. SYLLABUS REVIEW

DATA ANALYSIS

Coordinator: Use a separate sheet for each course. CAD 1200

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100%
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	100
General Education Attributes (where pertinent)	—
Required Books and Supplies	100
List of Supportive Materials (where available)	Ø
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	—
Disclaimer Allowing for Reasonable Revisions	Ø
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	Ø
Applicable Forms Pertinent to Course	—
Reference to Student Policies in OCC Catalog	Ø
Policy on Use of Computing Resources	Ø
Description of Required Computing Skills	Ø
Policy on Plagiarism	100
Student Bill of Responsibilities	100

CORE REVIEW
B. SYLLABUS REVIEW

DATA ANALYSIS

Coordinator: Use a separate sheet for each course.   CAD 1450

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	100
General Education Attributes (where pertinent)	—
Required Books and Supplies	100
List of Supportive Materials (where available)	∅
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	—
Disclaimer Allowing for Reasonable Revisions	∅
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	∅
Applicable Forms Pertinent to Course	100
Reference to Student Policies in OCC Catalog	∅
Policy on Use of Computing Resources	∅
Description of Required Computing Skills	∅
Policy on Plagiarism	100
Student Bill of Responsibilities	100

CORE REVIEW
B. SYLLABUS REVIEW

DATA ANALYSIS

Coordinator: Use a separate sheet for each course.   CAD 2110

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	100
General Education Attributes (where pertinent)	—
Required Books and Supplies	100
List of Supportive Materials (where available)	∅
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	—
Disclaimer Allowing for Reasonable Revisions	100
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	∅
Applicable Forms Pertinent to Course	—
Reference to Student Policies in OCC Catalog	∅
Policy on Use of Computing Resources	∅
Description of Required Computing Skills	∅
Policy on Plagiarism	100
Student Bill of Responsibilities	100

CORE REVIEW
B. SYLLABUS REVIEW

DATA ANALYSIS

Coordinator: Use a separate sheet for each course.   eAD 2/02

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	100
General Education Attributes (where pertinent)	—
Required Books and Supplies	100
List of Supportive Materials (where available)	0
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	—
Disclaimer Allowing for Reasonable Revisions	0
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	0
Applicable Forms Pertinent to Course	—
Reference to Student Policies in OCC Catalog	0
Policy on Use of Computing Resources	0
Description of Required Computing Skills	0
Policy on Plagiarism	100
Student Bill of Responsibilities	100

CORE REVIEW
B. SYLLABUS REVIEW

DATA ANALYSIS

Coordinator: Use a separate sheet for each course.   CAD 2130

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	—
General Education Attributes (where pertinent)	100
Required Books and Supplies	100
List of Supportive Materials (where available)	Ø
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	—
Disclaimer Allowing for Reasonable Revisions	Ø
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	Ø
Applicable Forms Pertinent to Course	—
Reference to Student Policies in OCC Catalog	Ø
Policy on Use of Computing Resources	Ø
Description of Required Computing Skills	Ø
Policy on Plagiarism	100
Student Bill of Responsibilities	100.

CORE REVIEW
B. SYLLABUS REVIEW

DATA ANALYSIS

Coordinator: Use a separate sheet for each course. CAD 2140

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	100
General Education Attributes (where pertinent)	—
Required Books and Supplies	100
List of Supportive Materials (where available)	100
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	—
Disclaimer Allowing for Reasonable Revisions	100
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	Ø
Applicable Forms Pertinent to Course	—
Reference to Student Policies in OCC Catalog	Ø
Policy on Use of Computing Resources	Ø
Description of Required Computing Skills	Ø
Policy on Plagiarism	100
Student Bill of Responsibilities	100

CORE REVIEW
B. SYLLABUS REVIEW

Coordinator: Use a separate sheet for each course. CAD 2160

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	100
General Education Attributes (where pertinent)	—
Required Books and Supplies	100
List of Supportive Materials (where available)	0
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	0 —
Disclaimer Allowing for Reasonable Revisions	0
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	0
Applicable Forms Pertinent to Course	0 N/A
Reference to Student Policies in OCC Catalog	0
Policy on Use of Computing Resources	0
Description of Required Computing Skills	0
Policy on Plagiarism	100
Student Bill of Responsibilities	100

CORE REVIEW
B. SYLLABUS REVIEW

DATA ANALYSIS

Coordinator: Use a separate sheet for each course. CAD 2201

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	100
General Education Attributes (where pertinent)	—
Required Books and Supplies	100
List of Supportive Materials (where available)	Ø
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	—
Disclaimer Allowing for Reasonable Revisions	Ø
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	Ø
Applicable Forms Pertinent to Course	—
Reference to Student Policies in OCC Catalog	Ø
Policy on Use of Computing Resources	Ø
Description of Required Computing Skills	Ø
Policy on Plagiarism	100
Student Bill of Responsibilities	100

CORE REVIEW
B. SYLLABUS REVIEW

DATA ANALYSIS

Coordinator: Use a separate sheet for each course. CAD 2151

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	100
General Education Attributes (where pertinent)	—
Required Books and Supplies	100
List of Supportive Materials (where available)	0
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	—
Disclaimer Allowing for Reasonable Revisions	100
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	0
Applicable Forms Pertinent to Course	—
Reference to Student Policies in OCC Catalog	0
Policy on Use of Computing Resources	0
Description of Required Computing Skills	0
Policy on Plagiarism	100
Student Bill of Responsibilities	100

CORE REVIEW
B. SYLLABUS REVIEW

Coordinator: Use a separate sheet for each course.   CAD 2190

DATA ANALYSIS

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	100
General Education Attributes (where pertinent)	—
Required Books and Supplies	100
List of Supportive Materials (where available)	—
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	~~0~~ N/A
Disclaimer Allowing for Reasonable Revisions	0
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	0
Applicable Forms Pertinent to Course	—
Reference to Student Policies in OCC Catalog	0
Policy on Use of Computing Resources	0
Description of Required Computing Skills	0
Policy on Plagiarism	100
Student Bill of Responsibilities	100

CORE REVIEW
B. SYLLABUS REVIEW

DATA ANALYSIS

Coordinator: Use a separate sheet for each course. CHD 2301

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	100
General Education Attributes (where pertinent)	—
Required Books and Supplies	100
List of Supportive Materials (where available)	Ø
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	—
Disclaimer Allowing for Reasonable Revisions	100
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	Ø
Applicable Forms Pertinent to Course	—
Reference to Student Policies in OCC Catalog	Ø
Policy on Use of Computing Resources	Ø
Description of Required Computing Skills	Ø
Policy on Plagiarism	100
Student Bill of Responsibilities	100

CORE REVIEW
B. SYLLABUS REVIEW

DATA ANALYSIS

Coordinator: Use a separate sheet for each course. CAD 2351

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	100
General Education Attributes (where pertinent)	—
Required Books and Supplies	100
List of Supportive Materials (where available)	0
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	—
Disclaimer Allowing for Reasonable Revisions	100
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	0
Applicable Forms Pertinent to Course	—
Reference to Student Policies in OCC Catalog	0
Policy on Use of Computing Resources	— 0
Description of Required Computing Skills	0
Policy on Plagiarism	100
Student Bill of Responsibilities	100

CORE REVIEW
B. SYLLABUS REVIEW

DATA ANALYSIS

Coordinator: Use a separate sheet for each course. CAD 2450

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	100
General Education Attributes (where pertinent)	—
Required Books and Supplies	100
List of Supportive Materials (where available)	0
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	—
Disclaimer Allowing for Reasonable Revisions	
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	0
Applicable Forms Pertinent to Course	100
Reference to Student Policies in OCC Catalog	0
Policy on Use of Computing Resources	0
Description of Required Computing Skills	0
Policy on Plagiarism	100
Student Bill of Responsibilities	100

CORE REVIEW
B. SYLLABUS REVIEW

DATA ANALYSIS

Coordinator: Use a separate sheet for each course. CAD 2602

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	100
General Education Attributes (where pertinent)	—
Required Books and Supplies	100
List of Supportive Materials (where available)	∅
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	—
Disclaimer Allowing for Reasonable Revisions	100
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	∅
Applicable Forms Pertinent to Course	—
Reference to Student Policies in OCC Catalog	∅
Policy on Use of Computing Resources	∅
Description of Required Computing Skills	∅
Policy on Plagiarism	100%
Student Bill of Responsibilities	100

CORE REVIEW
B. SYLLABUS REVIEW

Coordinator: Use a separate sheet for each course. CAD 2702

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	100
General Education Attributes (where pertinent)	—
Required Books and Supplies	100
List of Supportive Materials (where available)	Ø
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	—
Disclaimer Allowing for Reasonable Revisions	100
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	Ø
Applicable Forms Pertinent to Course	—
Reference to Student Policies in OCC Catalog	Ø
Policy on Use of Computing Resources	Ø
Description of Required Computing Skills	Ø
Policy on Plagiarism	100
Student Bill of Responsibilities	100

CORE REVIEW
B. SYLLABUS REVIEW

DATA ANALYSIS

Coordinator: Use a separate sheet for each course. CAD 2801

	Percent of Inclusion
Mandatory Items (per FMA and Federal Law)	
ADA Notification	100
Course Goals	100
Grading Standards and Practices	100
Tentative Schedule of Assignments and Tests	100
Recommended Items (per Academic Senate)	
Course Name and Number	100
Instructor, Office Location, Method of Contact	100
Office Hours	100
Available Assistance	100
Course Catalog Description with Prerequisites	100
General Education Attributes (where pertinent)	—
Required Books and Supplies	100
List of Supportive Materials (where available)	0
Evaluation/Testing System & Policies	100
Attendance Policy	100
Safety Instructions	—
Disclaimer Allowing for Reasonable Revisions	100
Optional Items	
Semester Meeting Times & Room	100
Teaching/Learning Strategies	0
Applicable Forms Pertinent to Course	—
Reference to Student Policies in OCC Catalog	0
Policy on Use of Computing Resources	0
Description of Required Computing Skills	0
Policy on Plagiarism	100
Student Bill of Responsibilities	100

Part 2

Program Review

E.   INPUT FROM INTERNAL & EXTERNAL COMMUNITY

Coordinator: After reviewing the Data Collection forms on all the courses in the Discipline/Program, along with the collated data summary, please analyze and summarize these findings.

Faculty Perceptions of Occupational Programs and Disciplines Analysis

The analysis of the faculty data collection forms shows that for the most part, the faculty either strongly agreed, or agreed in a favorable manner. Please see the attached pie charts for further analysis.

Student Perception of Occupational Programs and Disciplines Analysis

The analysis of the student perception data collection forms portrays a favorable response. However, it appears that some students are not fully aware of the entire picture of the latest developments within the CAD program. This could also be attributed to the fact that the program has quite a few adjuncts who sometimes fail to discuss things other than the course subject matter. Please see the attached pie charts for question-by-question analysis of 149 students.

Advisory Committee/Industry Perceptions of Occupational   Programs/Disciplines Analysis

The analysis of the Advisory Committee/Industry perceptions of Occupational Programs/Disciplines' data collection forms displays a very favorable response which fall into the category of either strongly agree or agree. Please refer the attached pie charts for a question-by-question analysis.

INPUT FROM THE INTERNAL AND EXTERNAL COMMUNITY
REVIEW SUMMARY

Overall, the responses from all three groups is favorable and reflects satisfaction.

F. COMPARABLE COURSES/PROGRAMS AND TRENDS

Coordinator: Answer the following questions.

1. List three institutions to which the courses in your Program transfer, and list the specific courses for each institution. (Consult with the Counseling Department)

   Three institutions in which the courses of my program transfer to are:

   1) Central Michigan University
   2) Eastern Michigan University
   3) Wayne State University (BSC in engineering and design technology)

2. List the institutions with which articulation agreements exist that include the courses in your Program. (Consult with the Counseling Department)

   1) Central Michigan University

3. Provide information regarding labor market trends in your field. (Consult with the Office of Assessment & Effectiveness)

   According to the Institutional Research, overall, the program is showing mixed trend with new jobs being created due to retirement, out-migration, death etc... The computer aided engineering will see creation of new jobs as the demand for engineering technicians and mechanical engineering technicians increases.

4. Identify changes in job performance and employer expectations that have occurred within your industry in the past 5 years. (Consult with advisory committees, professional organizations)

   There was an expectation of higher productivity and higher education degree requirements. Such as a bachelor's degree.

F.   COMPARABLE COURSES/PROGRAMS AND TRENDS

Coordinator: Please use the data from the Comparable Courses/Programs and Trends Data Collection form to answer the following questions:

1.   How does your program serve transferring students? Please discuss.

Our program transfers to universities towards a baccalaureate degree in areas such as engineering technologies, applied sciences, and general studies.

2.   Are your articulation agreements current? Please discuss.

Our articulation agreements are with Central Michigan University are current.

3.   Discuss employment opportunities for students in both the current and future job   market.

The employment opportunities for starting positions have increased, with the improvement in the economy, and is expected to rise in the future.

4.   Discuss the changes that will be made in your program in response to current/future employer expectations and market trends.

Some courses have recently gone through major revision and the program is also being updated to reflect these changes. These changes will meet the new requirements of the area industry.

COMPARABLE COURSES/PROGRAMS AND TRANSFER REVIEW SUMMARY:

Almost all junior colleges in the Metropolitan Detroit Area offers some level of CAD courses, however, Macomb and Henry Ford Community College are offering comparable courses. The Computer Aided Engineering Technology is unique and is not offered by any of the area's junior colleges.

The associate degree as well as the individual courses transfer to area universities for a baccalaureate degree in engineering technology. Articulation with Central Michigan University is unique-which allows our students to transfer the associates in CAD to obtain a BSC degree in vehicle design.

The current trends in the CAD field shows that students will also need more understanding of design and manufacturing simulation.

Student Perceptions

My program of study at Oakland Community College is meeting my expectations.

□ Neutral
5
3%

▣ Strongly Agree
41
28%

■ Agree
99
69%
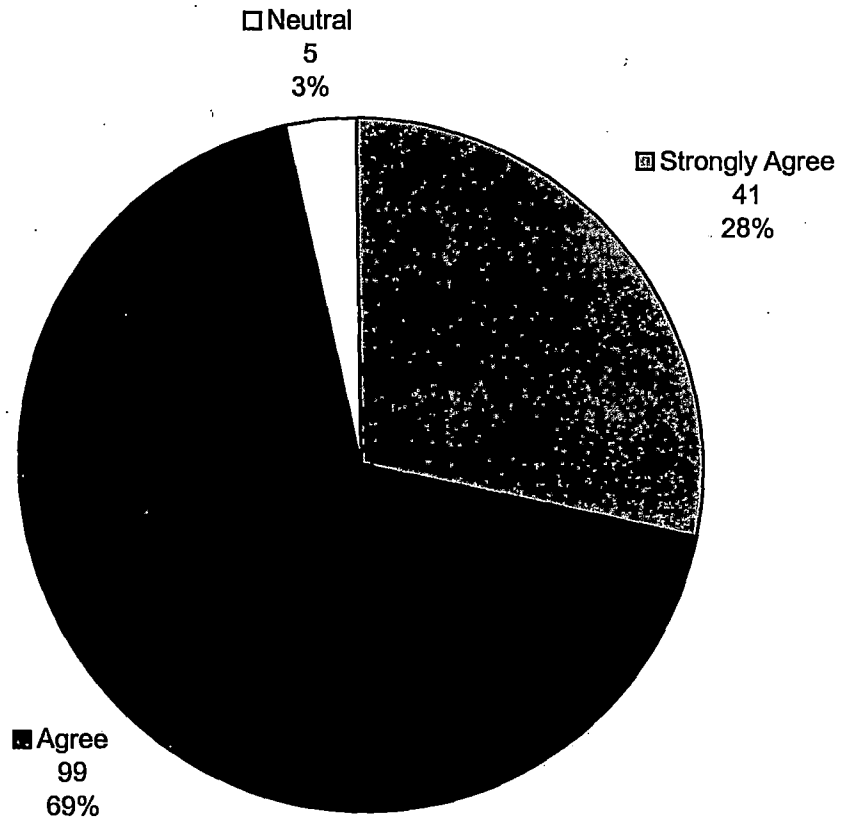
The courses offered in my program of study are preparing me for the workforce.

Neutral
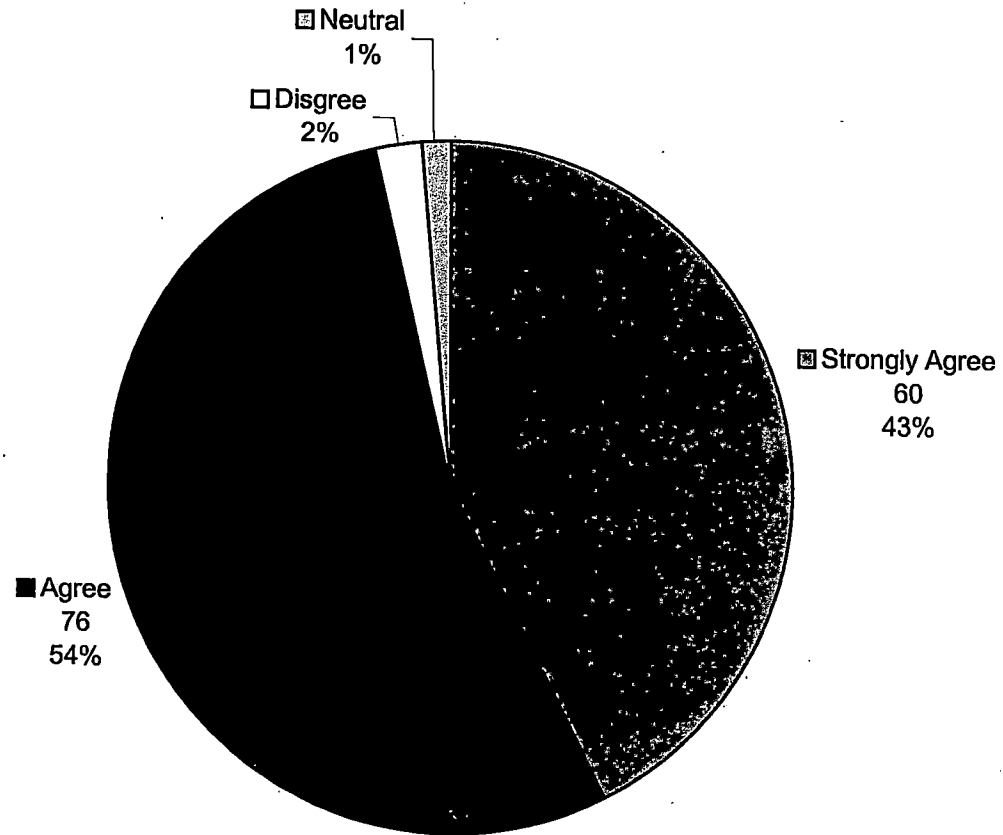12
8%

Strongly Agree
44
30%

Agree
90
62%
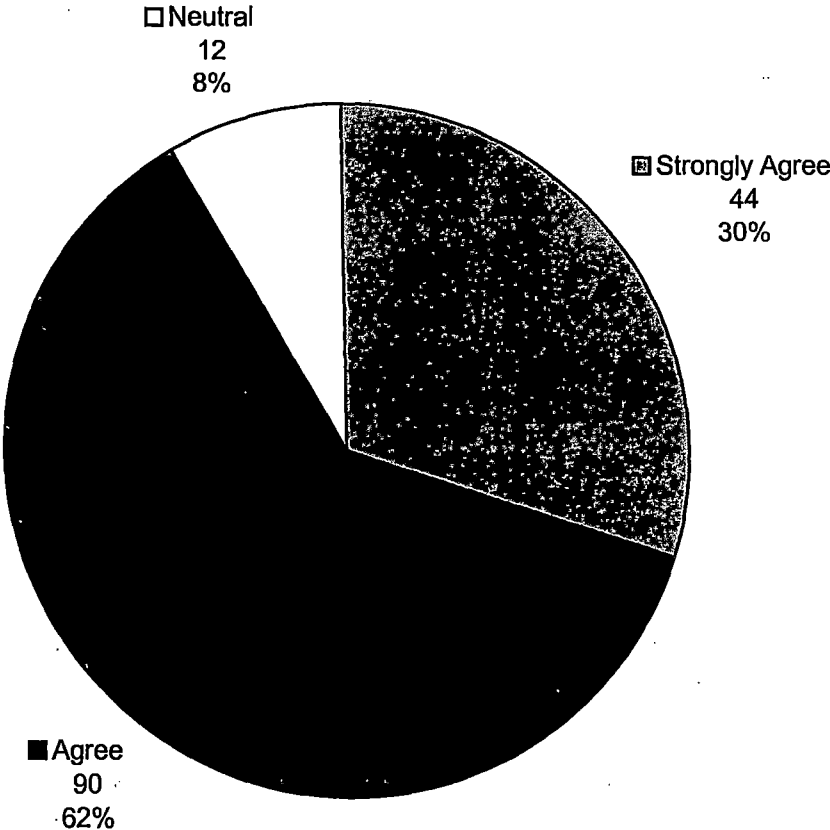
I would like to change my current program of study because of academic reasons.
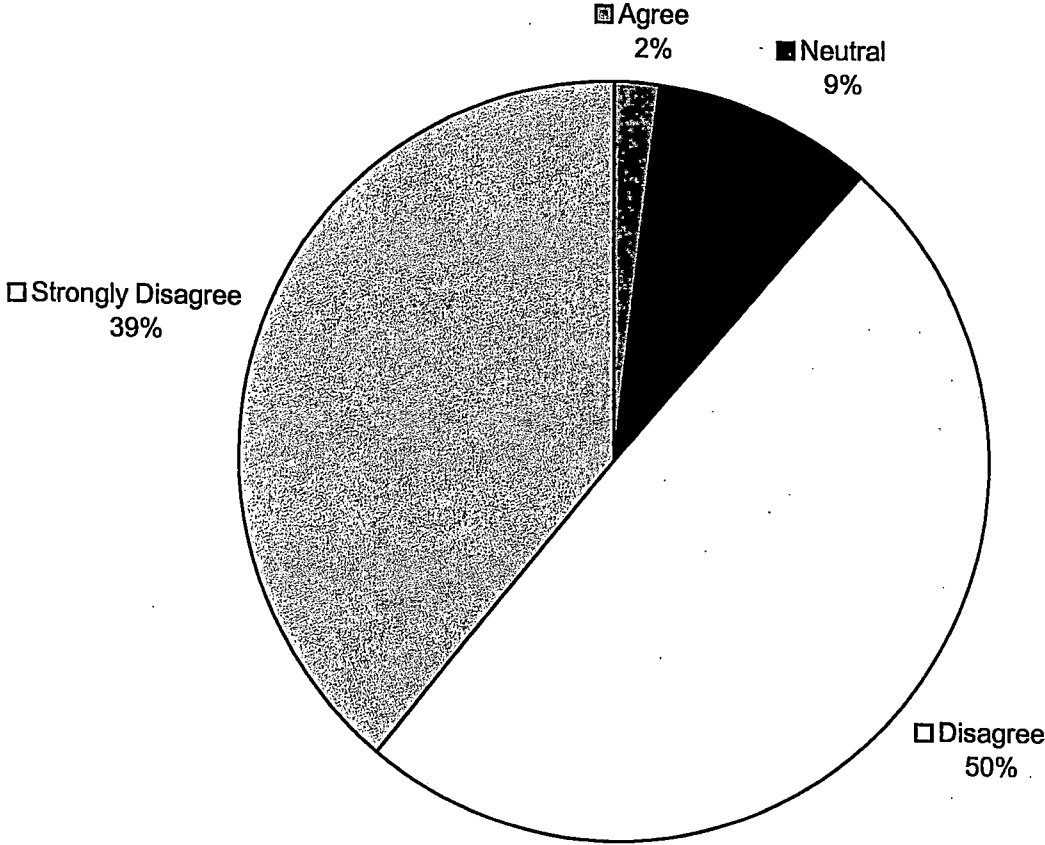
# I would like to attend another institution because of dissatisfaction with my current program of study at Oakland Community College.

Strongly Agree
1%

Agreee
3%

Neutral
10%

Strongly Disagree
32%

Disagree
54%
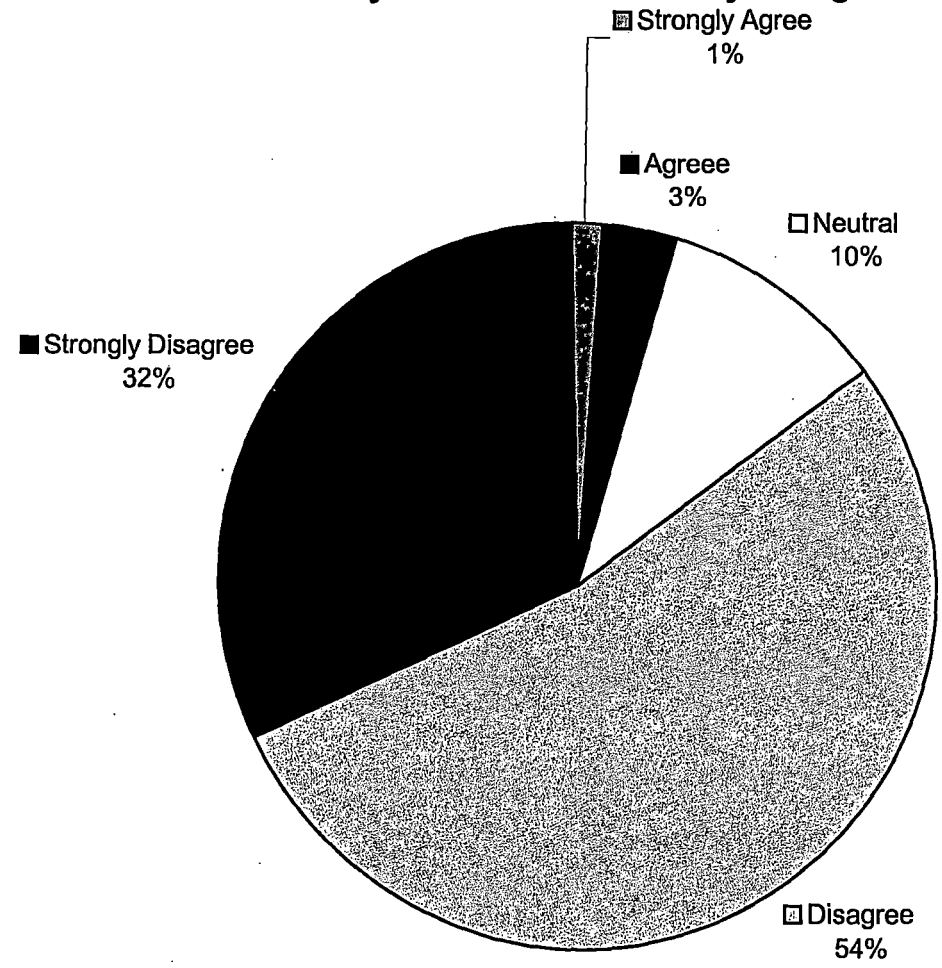
I am satisfied with the quality of the intructors in my program of study.

Neutral
1%

Disgree
2%

Strongly Agree
60
43%

Agree
76
54%

I feel that the instructors are knowledgeable about the course subject matter.

Neutral
2
1%

Strongly Agree
67
47%

Agree
74
52%
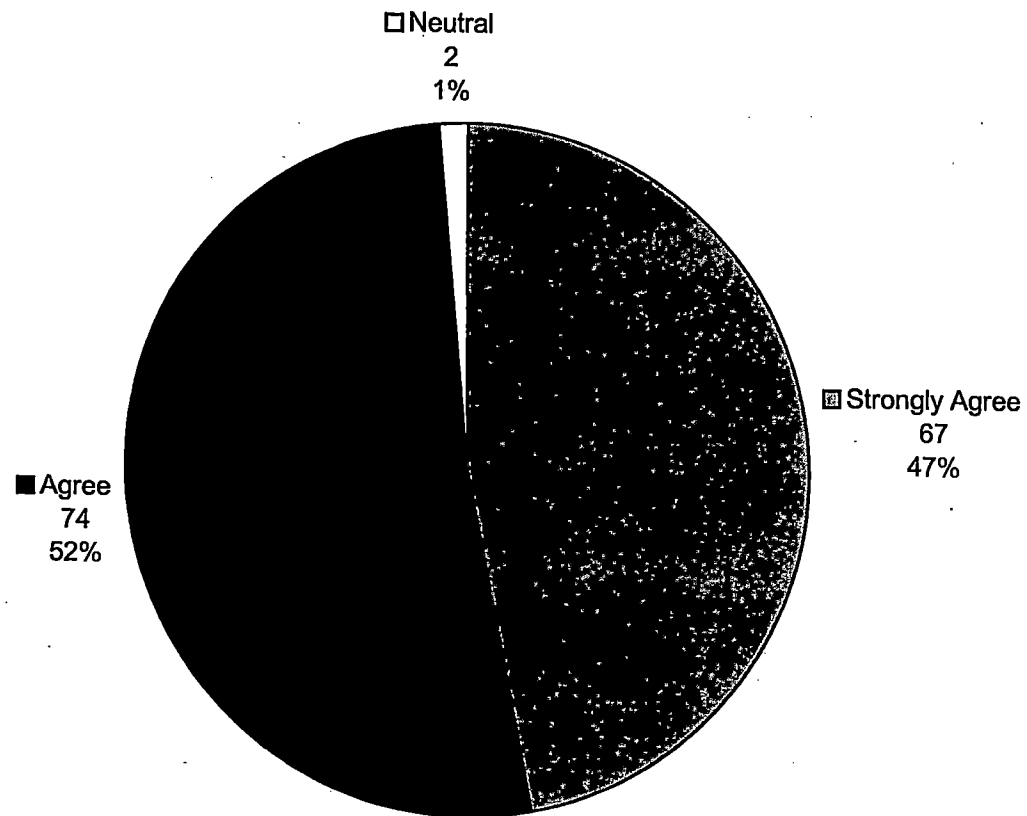
I am satisfied with the course offerings in my current program of study at Oakland Community College.

Neutral
1%

Disagree
5%

Strongly Agree
35%

Agree
86
59%
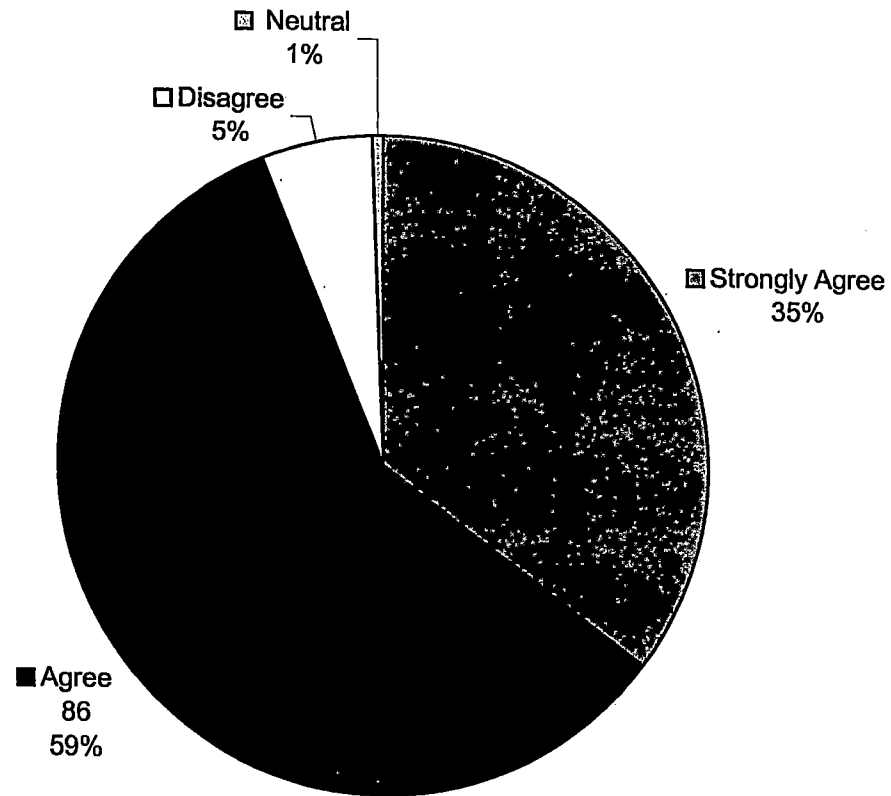
My instructors help me to understand how useful my program of study can be in the real world.

- ☐ Disagree 3%
- ☐ Neutral 4%
- ▦ Strongly Agree 34%
- ■ Agree 59%
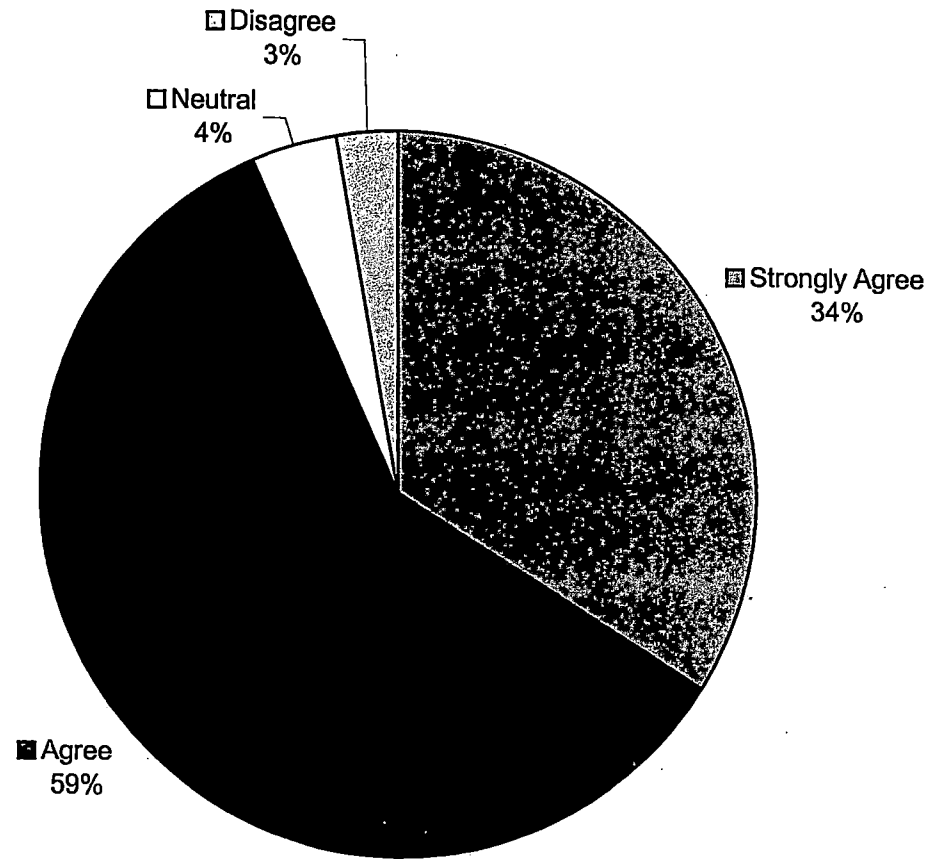
My instructor makes the course subject matter seem interesting.

Pie chart:
- Strongly Disgaree 1%
- Neutral 6%
- Stongly Agree 38%
- Agree 55%
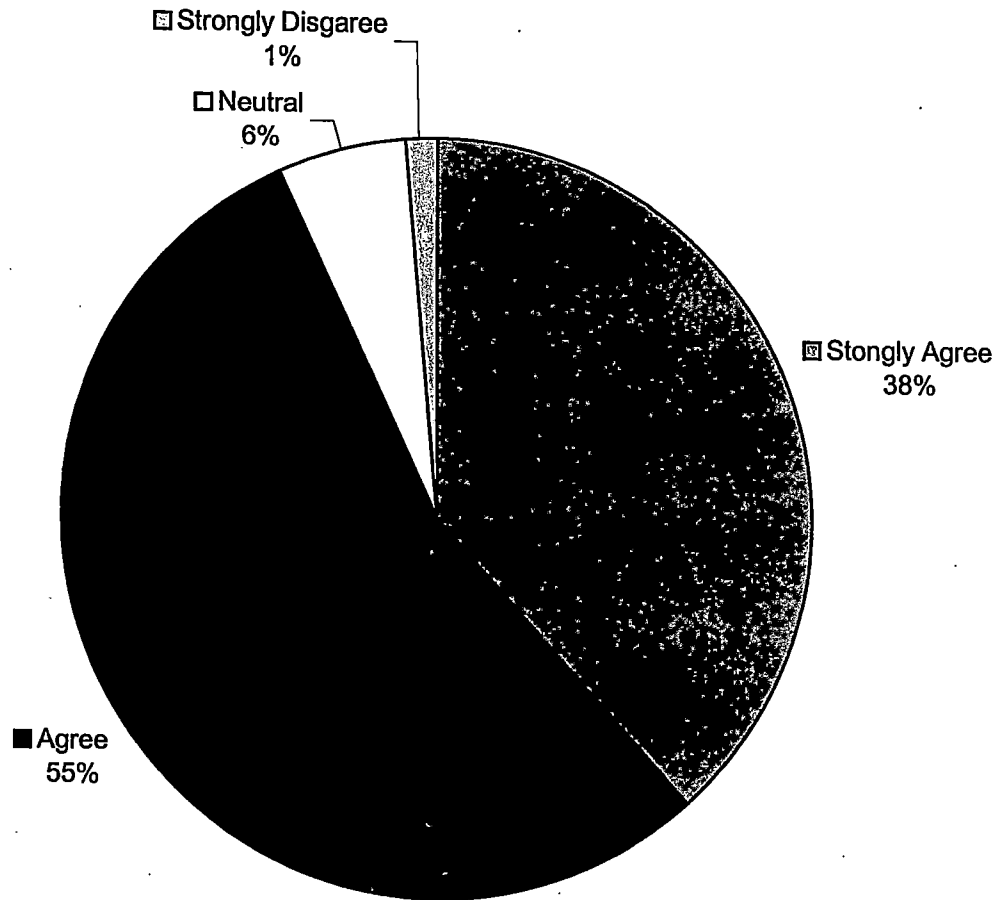
I am informed about what is happening in my program.

- ■ Strongly Disagree 1%
- ▣ Disagree 3%
- □ Neutral 16%
- ▣ Strongly Agree 33%
- ■ Agree 47%
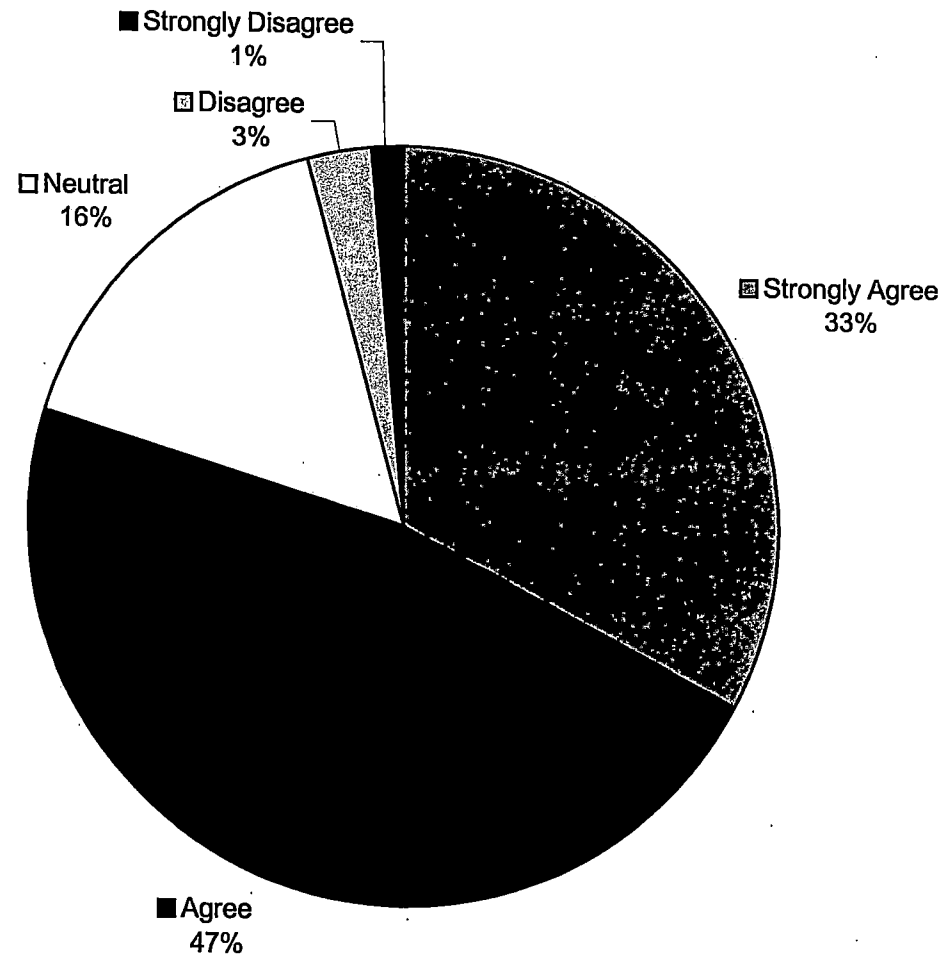
I think the department is committed to student success in the program.

- Neutral 7%
- Strongly Agree 34%
- Agree 59%
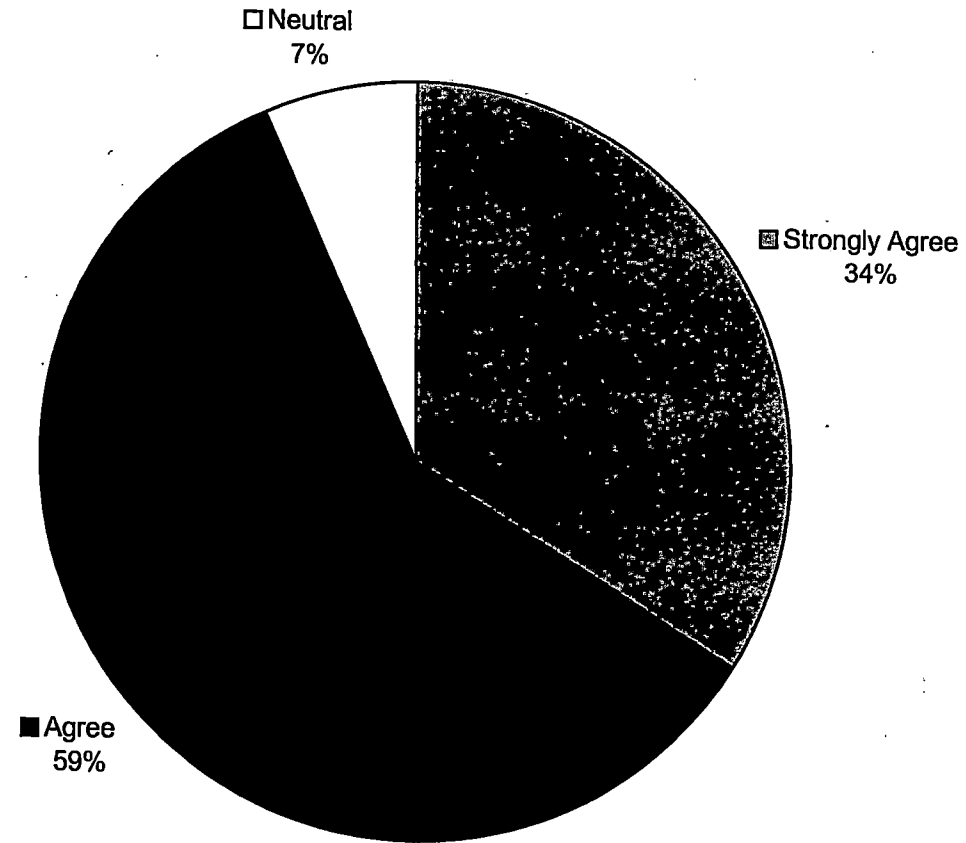
I am satisfied with my program of study.
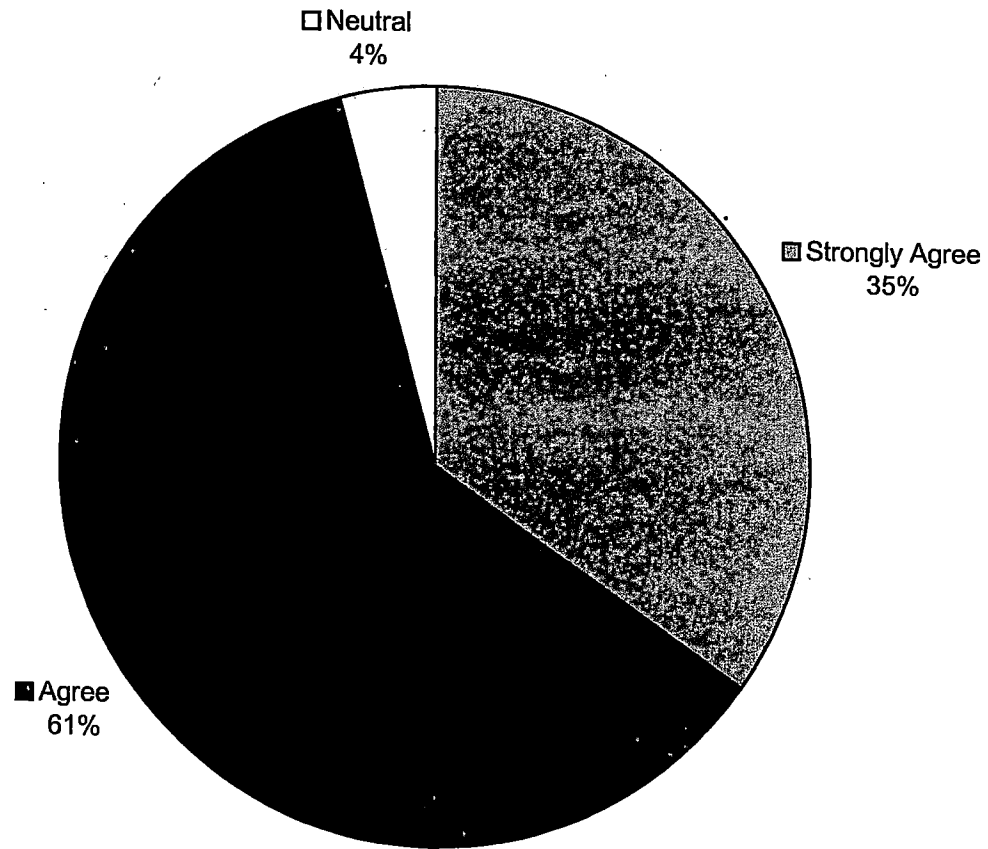
Advisory Committee Perceptions

The program at Oakland Community College is meeting the expectations of the Advisory Committee.

Agree
3
43%

Strongly Agree
4
57%
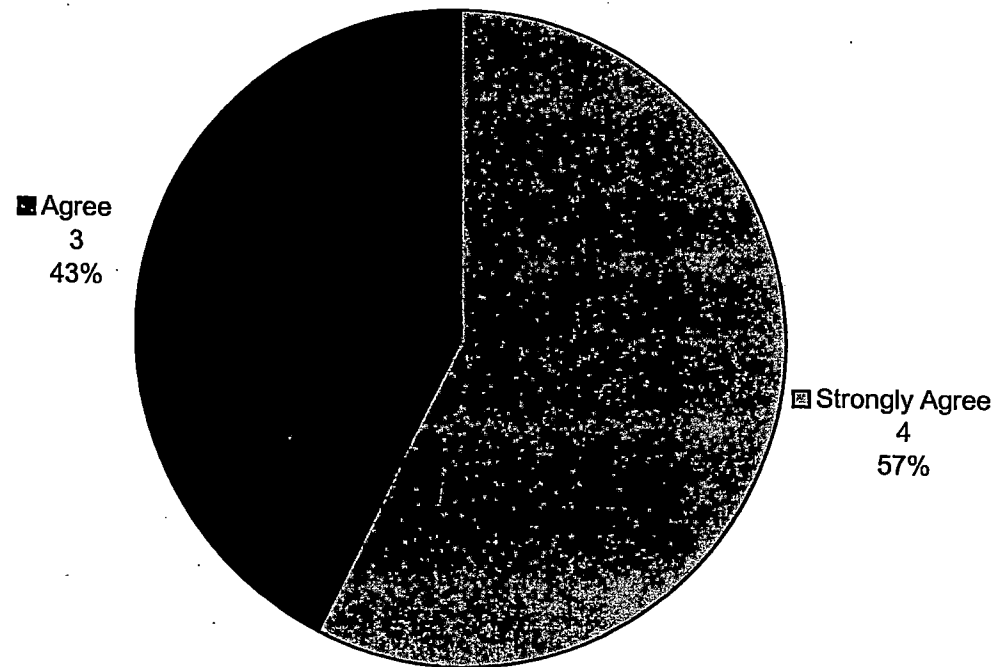
The courses offered are preparing the students for the workforce.

■Agree
3
43%

▓Strongly Agree
4
57%
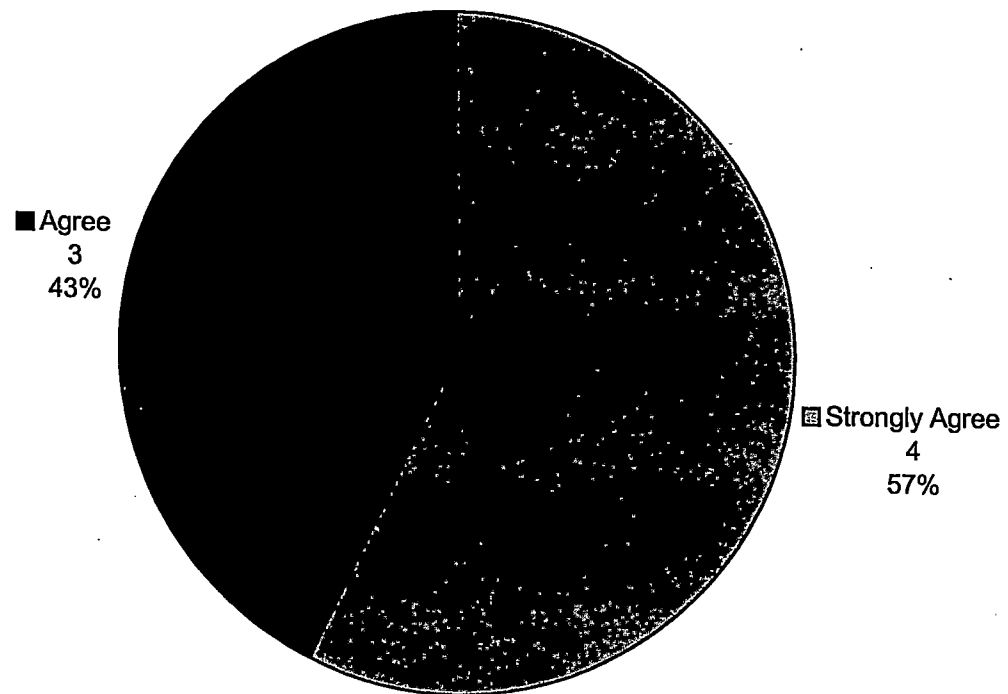
The Advisory is informed about the program.

Agree
3
43%

Strongly Agree
4
57%
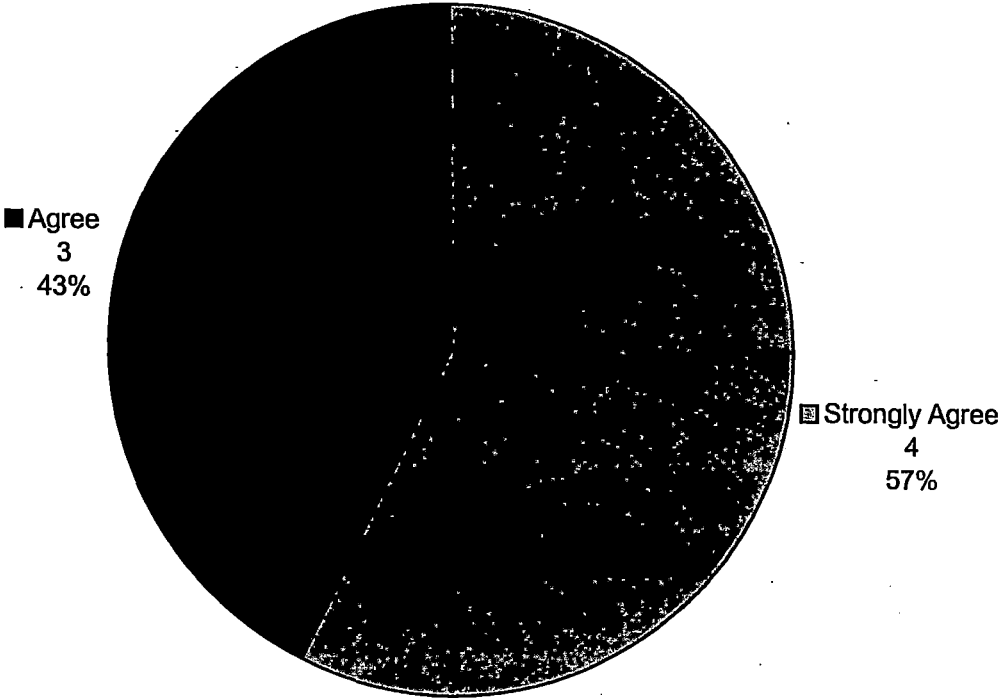
The Advisory Committe has substantial input into decision-making of the program.

Agree
2
29%

Strongly Agree
5
71%
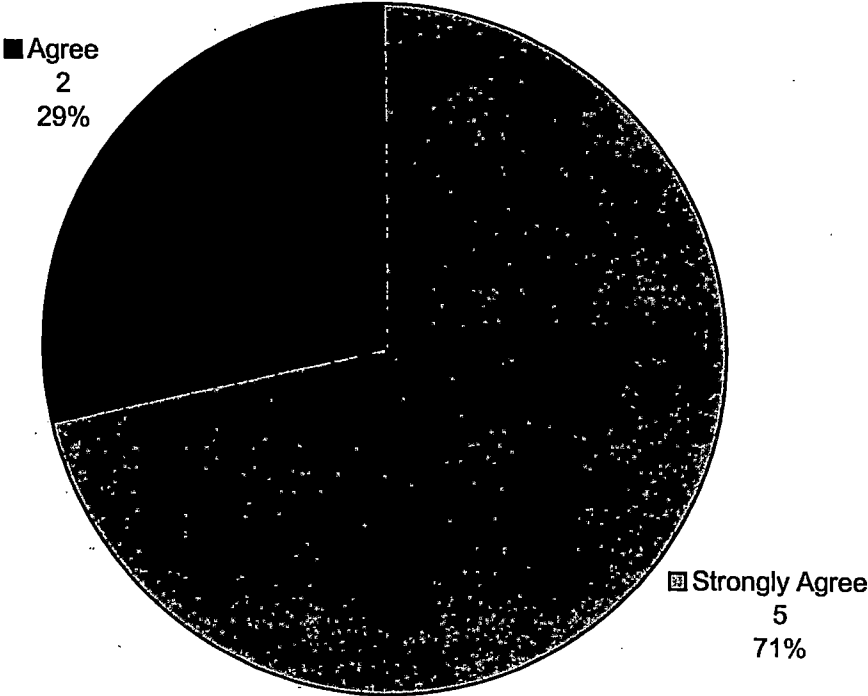
The Advisory Committee is satisfied with the direction of the program.

Neutral
1
14%

Strongly Agree
3
43%

Agree
3
43%
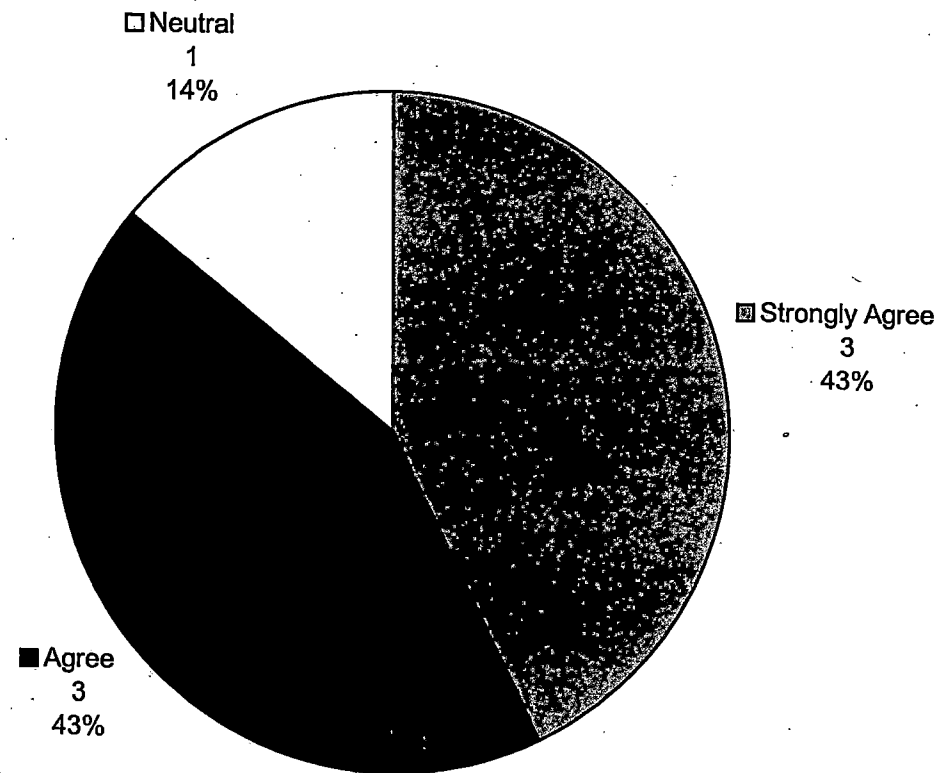
Question Number Six:

If there is one thing the committee would like to change about the program, explain what it is, and how it would enhance the program.

Responses

- More contact with the other instructors in the CAD program. Need to make sure that the flow of classes work for the students.
- Specific software revision training for instructors to keep abreast of new technology.

Faculty Perceptions

The program of study in which I teach at Oakland Community College is meeting my expectations as a faculty member.
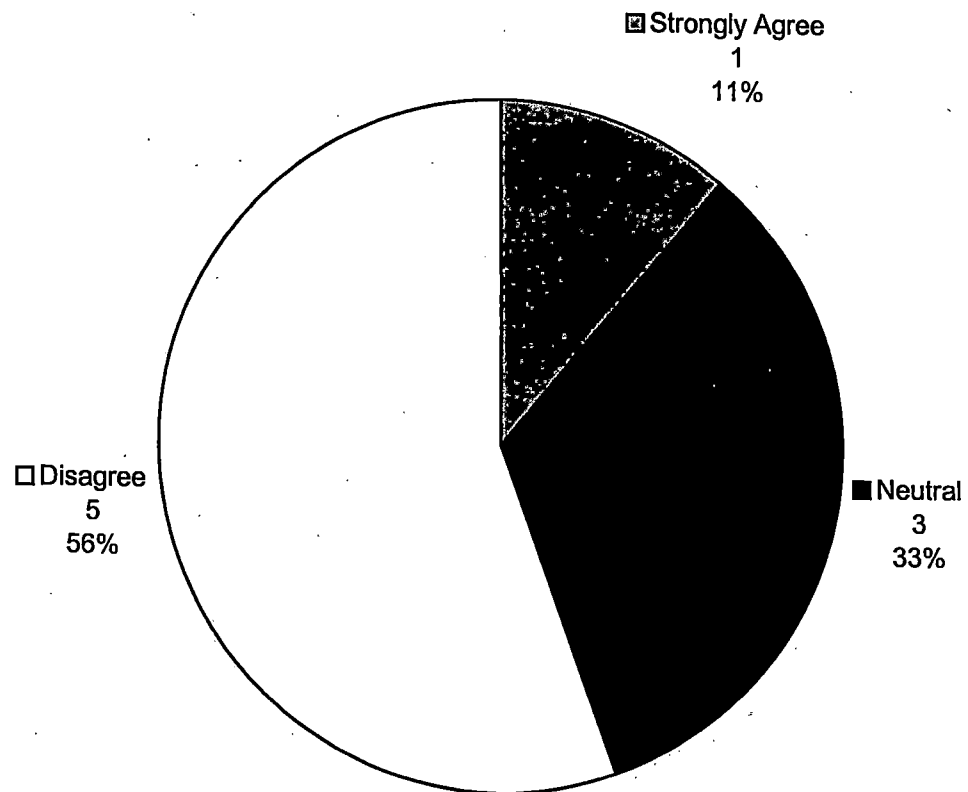
■Agree
1
11%

▦Strongly Agree1
8
89%
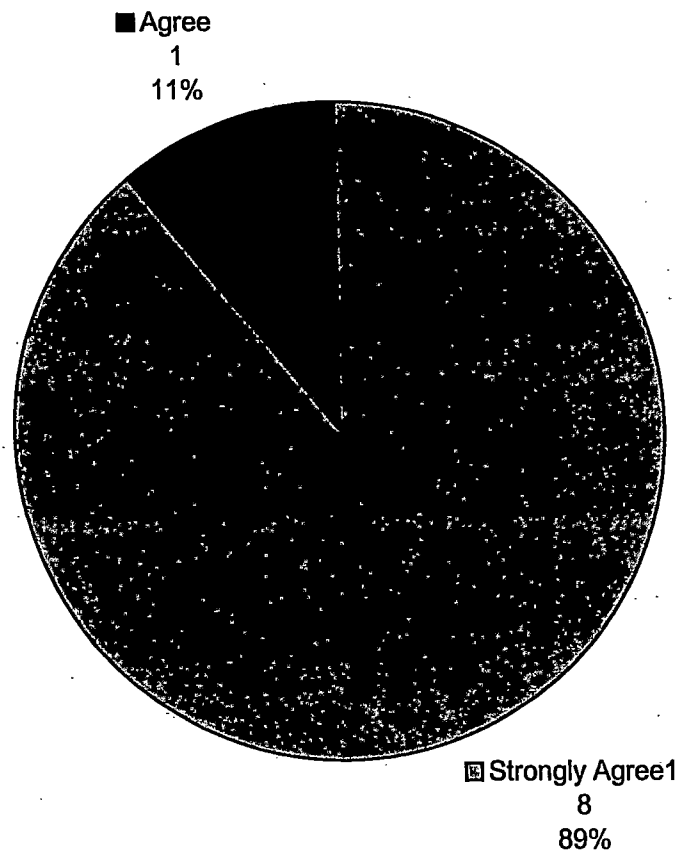
The courses offered in the program are preparing the students for the workforce.

■ Agree
2
22%

▣ Strongly Agree
7
78%
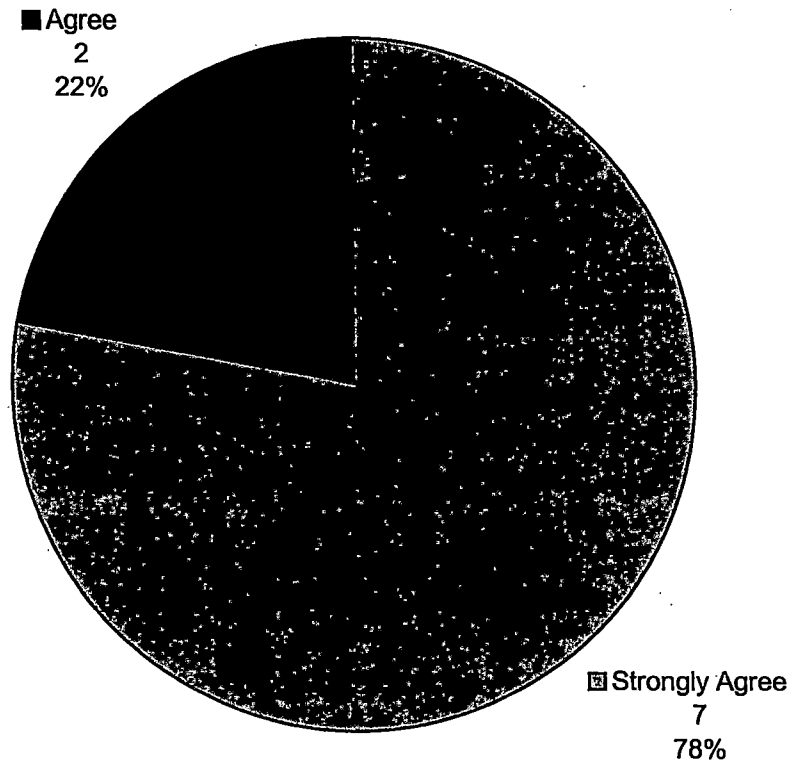
The program can be more challenging academically for the students.

Strongly Agree
2
22%

Neutral
1
11%

Disagree
6
67%
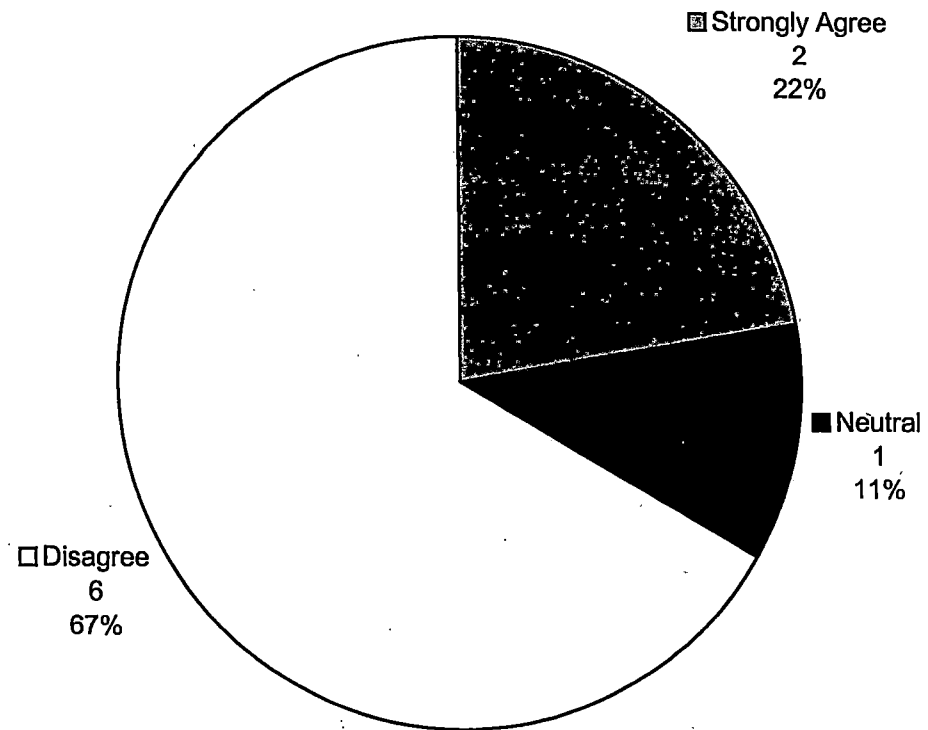
The program can be more competitive with other institutions that offer similar programs.

Strongly Agree
1
11%

Neutral
3
33%

Disagree
5
56%

I am satisfied with of quality of instruction provided to the students in the program.

Neutral
1
11%

Strongly Agree
3
33%

Agree
5
56%
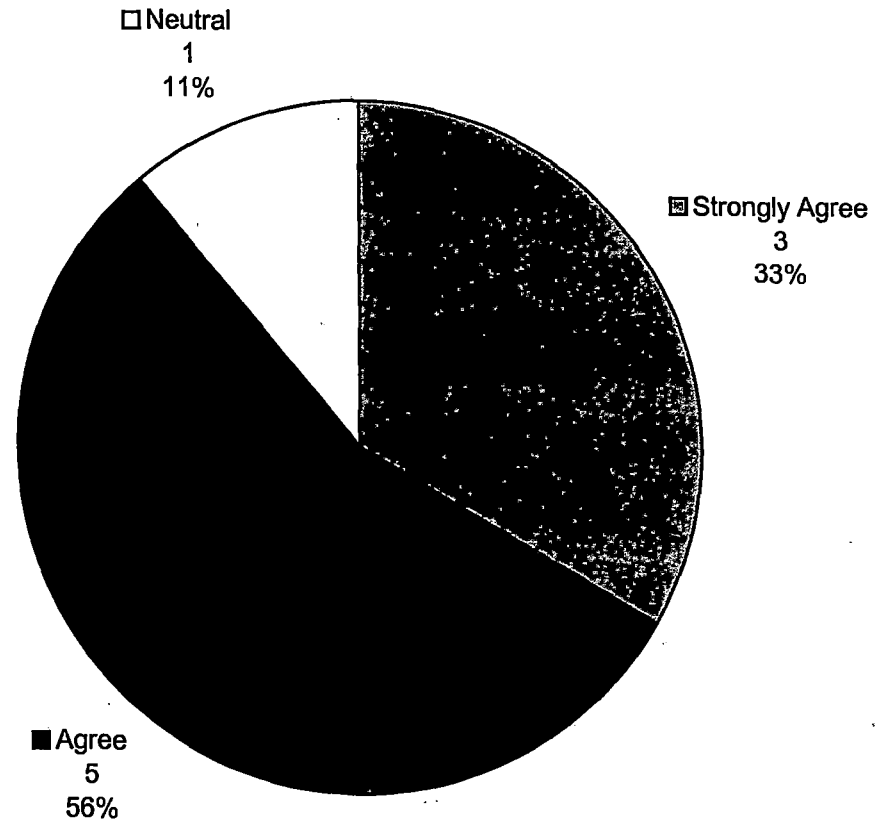
My fellow faculty members in the program are knowledgeable about the course subject matter.

- □ Neutral 1 11%
- ■ Agree 2 22%
- ▦ Strongly Agree 6 67%
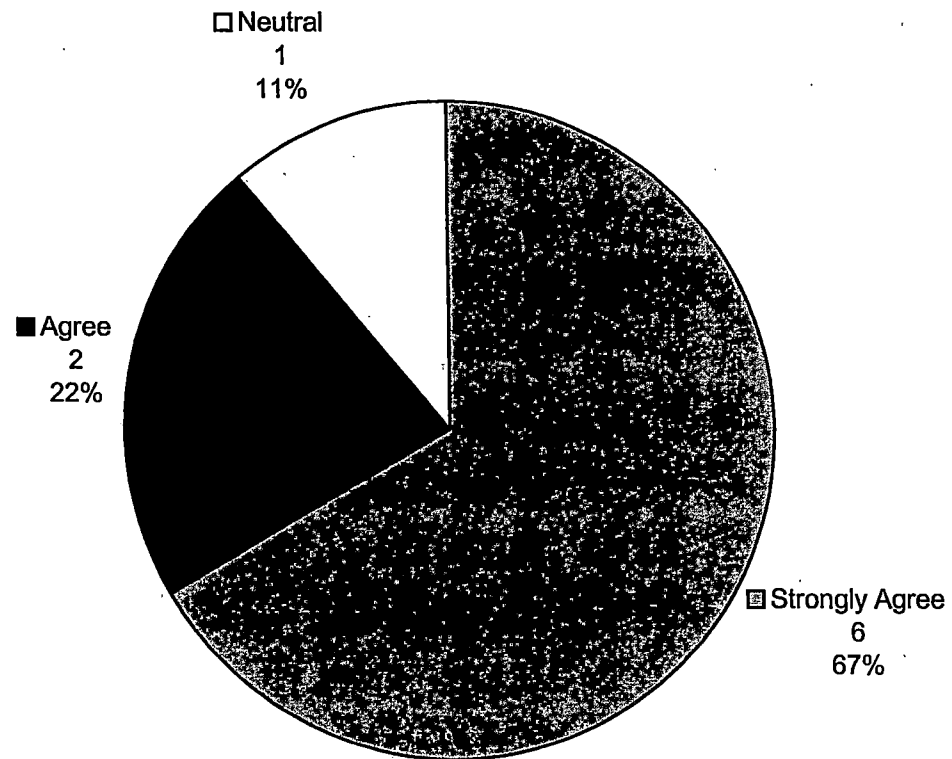
I am satisfied with the course offerings in this program.

Neutral
1
11%

Strongly Agree
4
45%

Agree
4
44%
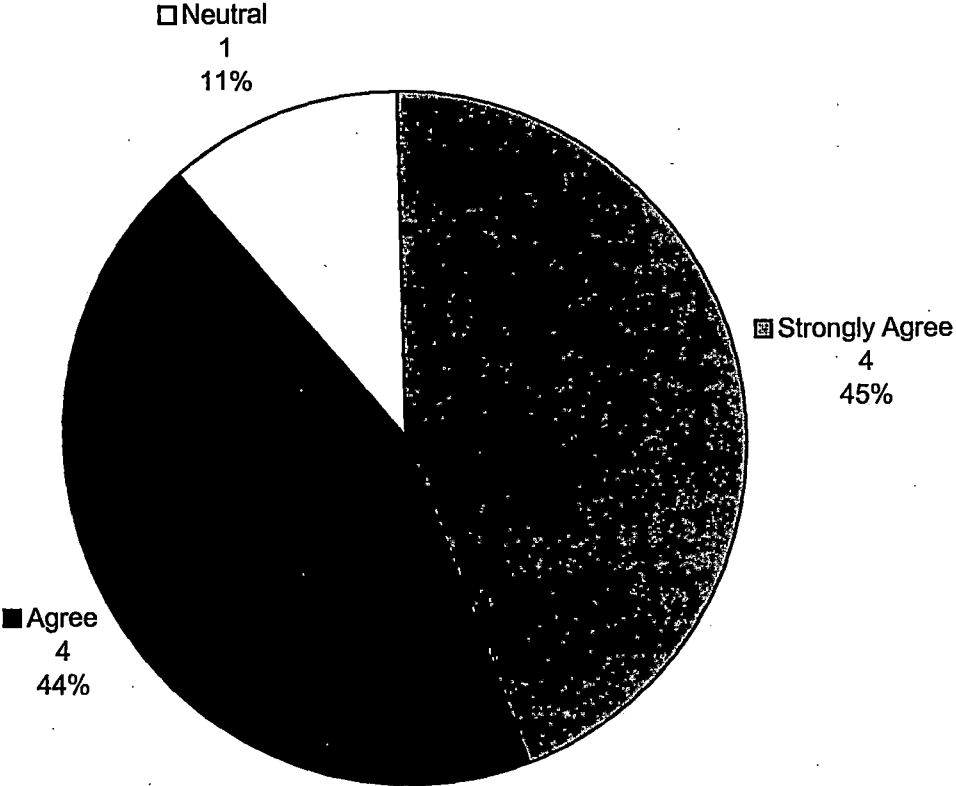
I feel that the program has a focus real-world application.

Agree
3
33%

Strongly Agree
7
67%
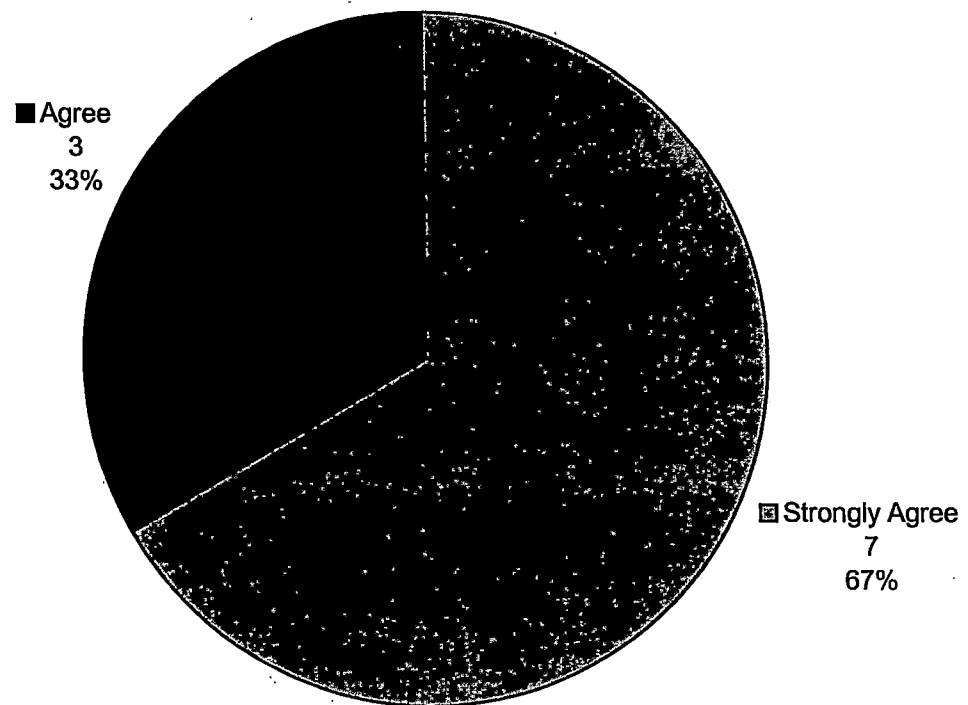
I feel that the students are prepared for the rigors of the program.

Neutral
1
11%

Strongly Agree
4
45%

Agree
4
44%
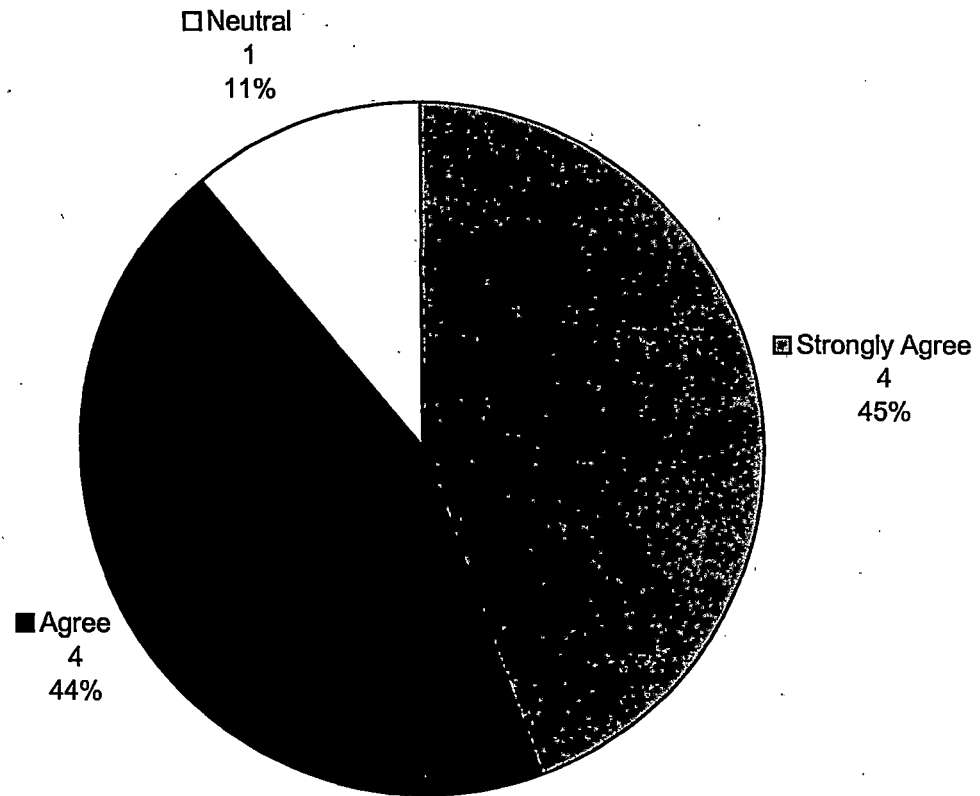
I am informed about what is happening in this program.

Disagree
1
11%

Strongly Agree
3
34%

Neutral
2
22%

Agree
3
33%
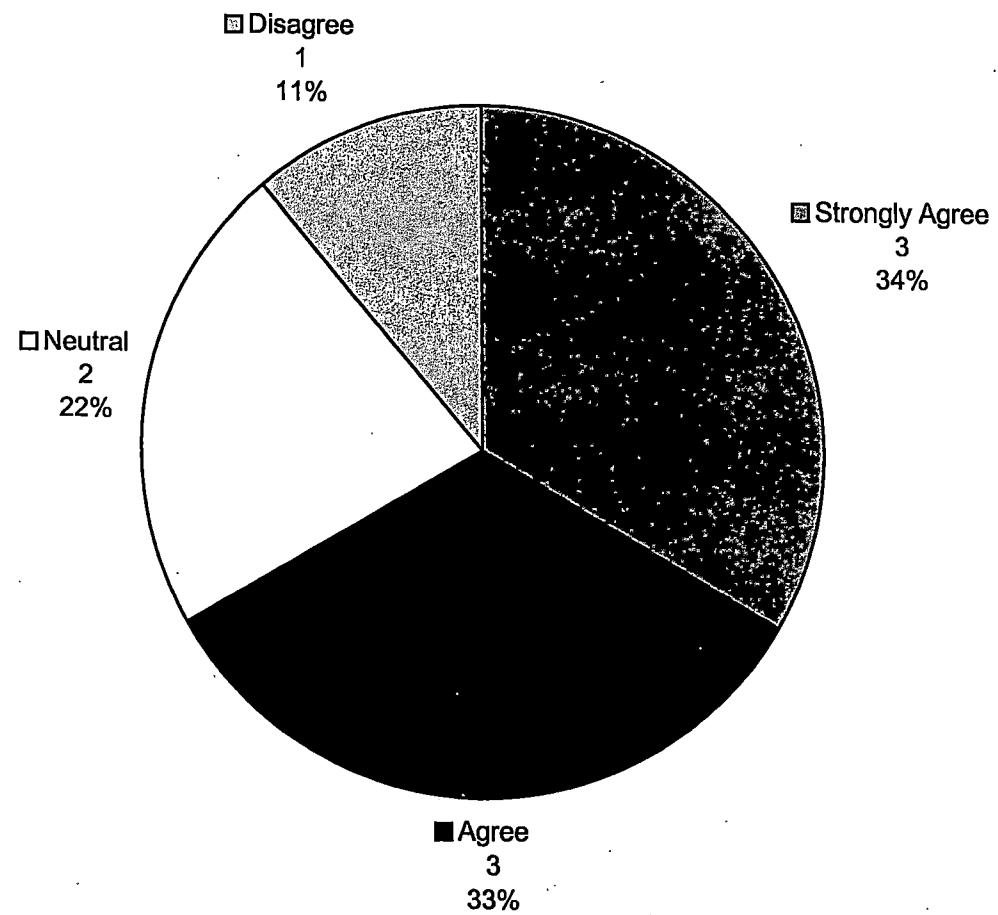
Opportunities are available for me to make suggestions for improvement in this program

■ Agree
4
44%

▣ Strongly Agree
5
56%
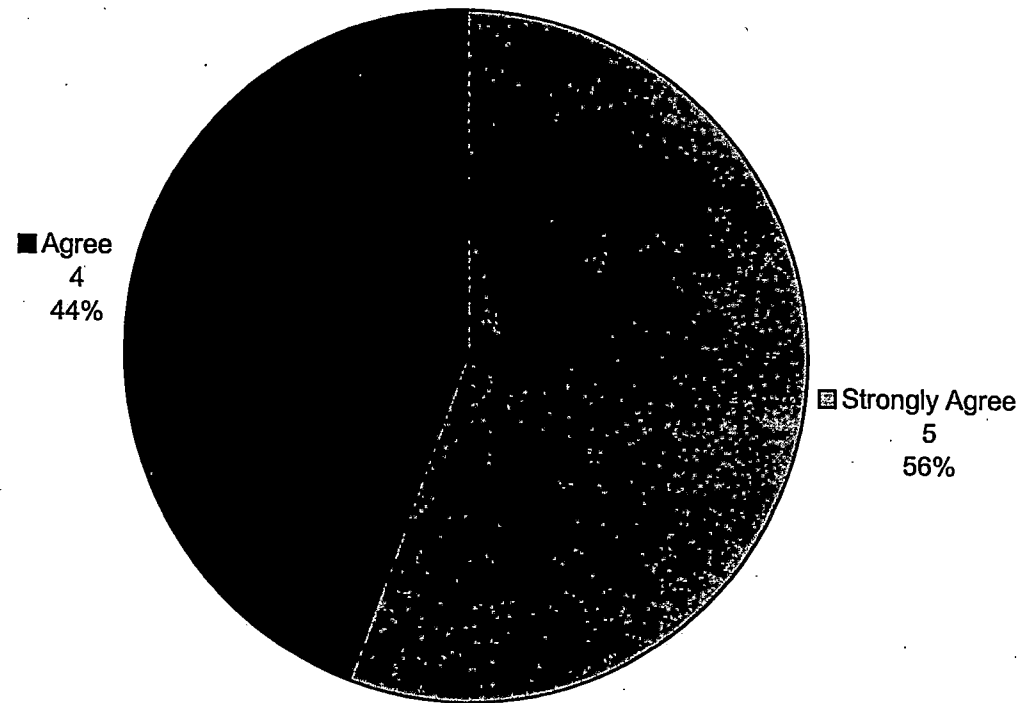
I think the department has a commitment to students success in the program.

Agree
2
22%

Strongly Agree
7
78%
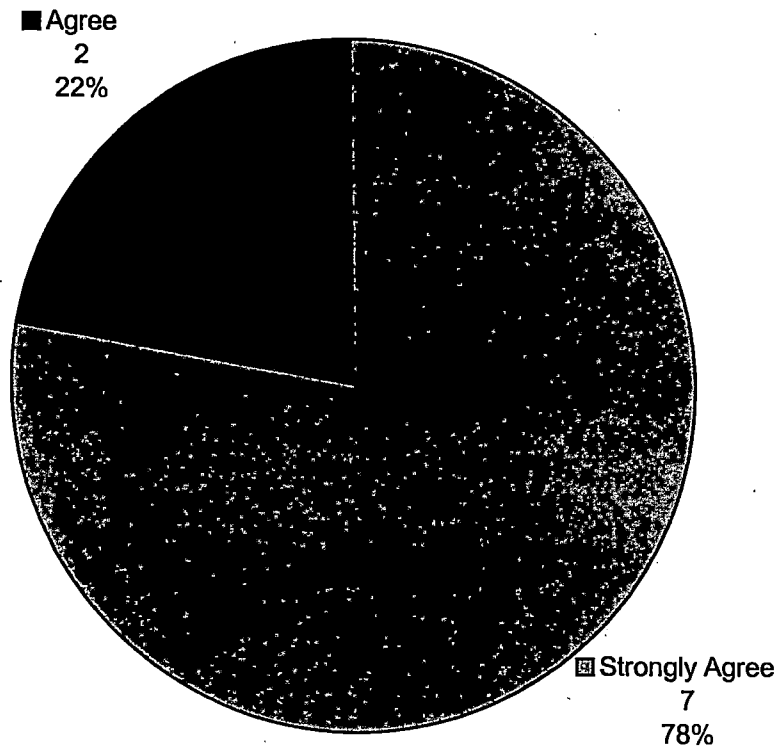
I am satisfied with the direction the program is heading in because:

■ Working in conjunction
with the advisory
committee keeps the
program going in the right
direction
1
11%
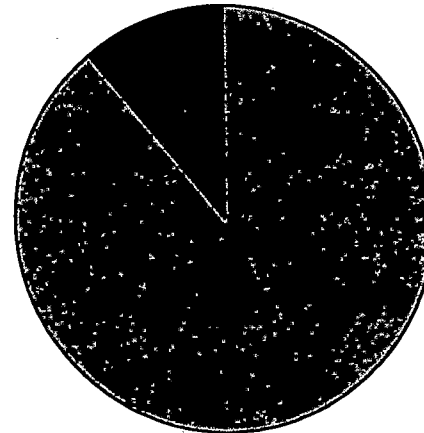
▣ I think it prepares students
for employment in the
workforce
8
89%

If there is one thing you would like to change about the program, explain what it is, and how it would enhance the program.

Responses
- Add a few problems from other disciplines to use as homework assignments. This would expose students to a variety of problem types that use AutoCAD.
- A change of textbook, to one more structured to step-by-step learning like the SDC Tutorials.
- Increase corporate business involvement for our students.

COMPUTER AIDED DESIGN AND DRAFTING TECHNOLOGY

Extended Degree Program - Associate in Applied Science

Computer Aided Engineering Option (CAD.CAE.AAS)

The Computer Aided Design and Drafting Technology Program leads to an Associate in Applied Science Degree and is designated as an Extended Degree Program in that the student must complete a minimum of 73 or more credit hours.

Computer Aided Engineering Technology is an option in the CAD Associate in Applied Science Degree program. This program option provides students with instruction in engineering-related design with emphasis on concepts and applications of Computer Aided Engineering Technology.

The program option covers subjects such as principles of Kinematics and its applications in engineering-related design, concepts and techniques of finite element modeling for stress analysis and nondestructive testing, techniques and applications of solid modeling for design and manufacturing and computer aided techniques for numerical control tool path generation for manufacturing.

Upon completion of this associate degree program or certificate, graduates will be prepared for employment in engineering, manufacturing and design analysis industries. Also, upon completion of the associate degree program, students may transfer to a four-year institution. Please see an OCC counselor for details.

NOTE: Refer to current Schedule of Classes for software version(s).

Major Requirements		**Credits**
CAD 1100*	Introduction to Computer Aided Design and Drafting	3
CAD 1200*	Product Detailing	3
CAD 2102*	Fundamentals of Part Design and its Applications	4
CAD 2110*	Topics in Design and Drafting Applications	4
CAD 2150*	Advanced Curves and Surfaces	4

Required Supportive Courses		
CAD 1450[1]	Drafting and Design Co-op Internship	3
DDT 1000*	Fundamentals for the Drafting Industry	3
DDT 1050*	Product Drafting	3
DDT 1150*	Descriptive Geometry	3
┌MAT 1150[2]●	Intermediate Algebra	4
│ *or*		
└MAT 1560[2]●	Trigonometry	3
MEC 1010	Introduction to Manufacturing Processes	3
┌PHY 1610[2]*●	College Physics I	4
│ *or*		
└APP 2170[2]*	Applied Technology	4

English Requirements
Students must choose **one** of the following courses:

ENG 1350[3]●	Business Communication	3

ENG 1450[3] •	Writing and Reading for Problem Solving	3
ENG 1510 •	Composition I	3
ENG 2200 •	Professional Communication	4

CAE Specialty Courses

CAD 2130*	Techniques and Applications of Solid Modeling for Design and Manufacturing .	4
CAD 2140*	Kinematics	4
CAD 2160*	Finite Element Modeling	3
CIM 2300*	Introduction to Flexible Manufacturing Systems (FMS)	4

See Graduation Requirements for an <u>Associate in Applied Science Degree</u>

TECH PREP STUDENTS: Students who have completed articulated Tech Prep programs may apply for advanced placement. Detailed information may be obtained through your high school counselor.

1   The following courses may be substituted: CAD 2300, 2350, 2601, 2701 and 2801.
2   Students taking PHY 1610 should take MAT 1560; students taking APP 2170 should take MAT 1150.
3   Prospective transfer students should substitute ENG 1510.
*   **When all courses marked with an asterisk are completed, students may apply for a certificate.**
•   Course may be used to meet General Education requirements.

COMPUTER AIDED DESIGN AND DRAFTING TECHNOLOGY

Extended Degree Program - Associate in Applied Science

Machine Tool Option (CAD.MTO.AASX)

This Associate in Applied Science Degree program is designed to prepare students for entry-level positions in the field of computer aided design and drafting. The students will use the computer as a tool in engineering, analysis, design, drafting, machine tool, robotics, electrical, industrial technology and automotive body design technology. Students will learn the concepts and principles of computer aided design and drafting and gain skills in the operation of computer aided design terminals, programming principles and evaluation of software problems.

The students will apply knowledge of such systems, software configurations and design principles in solving increasingly complex design problems involving metals, plastics and composites.

The Machine Tool Option includes the principles and concepts of tool and fixture design and die design on a CAD system. The option also includes the study of the use and application of drafting practices and principles, manufacturing processes and computer aided design hardware and software. Emphasis will be placed on computer aided drafting and production.

Upon completion of the program, graduates will be prepared for employment in engineering and manufacturing design industries using computers for drafting and design applications.

NOTE: Refer to current Schedule of Classes for software version(s).

Major Requirements		Credits
CAD 1100*	Introduction to Computer Aided Design and Drafting	3
CAD 1200*	Product Detailing	3
CAD 2102*	Fundamentals of Part Design and its Applications	4
CAD 2110*	Topics in Design and Drafting Applications	4
CAD 2150*	Advanced Curves and Surfaces	4
CAD 2190*	Assemblies and Components	4
CAD 2201*	Product Design and Layout	3

Required Supportive Courses		
CAD 1450[1]	Drafting and Design Co-op Internship	3
CAD 2450[1]	Advanced Drafting and Design Co-op Internship	3
DDT 1000*	Fundamentals for the Drafting Industry	3
DDT 1050*	Product Drafting	3
DDT 1150	Descriptive Geometry	3
MAT 1140[2]●	Plane Geometry	3
MAT 1540●	College Algebra	4
MEC 1010	Introduction to Manufacturing Processes	3
MEC 1020	Manufacturing and Fabrication Processes	3

English Requirements

Students must choose **one** of the following courses:

ENG 1350[3]•	Business Communication	3
ENG 1450[3]•	Writing and Reading for Problem Solving	3
ENG 1510•	Composition I	3
ENG 2200•	Professional Communication	4

Machine Tool Option Courses

| CAD 2301* | Tool Design - Fixtures and Gauges | 4 |
| CAD 2351* | Die Design Applications | 4 |

See Graduation Requirements for an <u>Associate in Applied Science Degree</u>.

TECH PREP STUDENTS: Students who have completed articulated Tech Prep programs may apply for advanced placement. Detailed information may be obtained through your high school counselor.

[1]   The following courses may be substituted: CAD 2130, 2140, 2160, 2601, 2701 and 2801.

[2]   Prospective transfer students should substitute ENG 1560.

[3]   Prospective transfer students should substitute ENG 1510.

*   **When all courses marked with an asterisk are completed, students may apply for a certificate.**

•   Course may be used to meet General Education requirements.

COMPUTER AIDED DESIGN AND DRAFTING TECHNOLOGY

Extended Degree Program - Associate in Applied Science

Vehicle Design Option (CAD.VDO.AASX)

This Associate in Applied Science Degree program is designed to prepare students for entry-level positions in the field of computer aided design and drafting. The students will use the computer as a tool in engineering, analysis, design, drafting, electrical, industrial technology and manufacturing systems. Students will learn the concepts and principles of computer aided design and drafting and gain skills in the operation of computer aided design terminals, programming principles and evaluation of software problems. The students will apply knowledge of such systems, software configurations and design principles in solving increasingly complex design problems involving metals, plastics and composites.

The Vehicle Design option of the program provides the student with instruction in principles and concepts of body design evolution, terminology, body surface blueprint interpretation, surface and structure applications and advanced body practices and theories. An extensive use and application of computer aided design will be applied throughout the course of the program.

Upon completion of the program, graduates will be prepared for employment in engineering and manufacturing design industries using computers for automotive body design and drafting applications.

NOTE: Refer to current Schedule of Classes for software version(s).

Major Requirements		Credits
CAD 1100*	Introduction to Computer Aided Design and Drafting	3
CAD 1200*	Product Detailing	3
CAD 2102*	Fundamentals of Part Design and its Applications	4
CAD 2110*	Topics in Design and Drafting Applications	4
CAD 2150*	Advanced Curves and Surfaces	4
CAD 2190*	Assemblies and Components	4
CAD 2201*	Product Design and Layout	3

Required Supportive Courses		
CAD 1450[1]	Drafting and Design Co-op Internship	3
CAD 2450[1]	Advanced Drafting and Design	3
DDT 1000*	Fundamentals for the Drafting Industry	3
DDT 1050*	Product Drafting	3
DDT 1150*	Descriptive Geometry	3
MAT 1140[2]●	Plane Geometry	3
MAT 1540●	College Algebra	4
MEC 1010	Introduction to Manufacturing Processes	3
MEC 1020	Manufacturing and Fabrication Practices	3

English Requirements

Students must choose **one** of the following courses:

ENG 1350[3]●	Business Communication	3

ENG 1450[3] ●	Writing and Reading for Problem Solving	3
ENG 1510 ●	Composition I	3
ENG 2200 ●	Professional Communication	4

Vehicle Design Option Courses

ADT 1100*	Introduction to Body Drafting	3
CAD 2601*	Principles of Body Design	4
CAD 2701*	Applications of Body Design	4
CAD 2801*	Vehicle Body Surface Development	4

See Graduation Requirements for an <u>Associate in Applied Science Degree</u>.

TECH PREP STUDENTS: Students who have completed articulated Tech Prep programs may apply for advanced placement. Detailed information may be obtained through your high school counselor.

1   The following courses may be substituted: CAD 2130, CAD 2140, CAD 2160, CAD 2300, CAD 2350.

2   Prospective transfer students should substitute ENG 1560.

3   Prospective transfer students should substitute ENG 1510.

*   **When all courses marked with an asterisk are completed, students may apply for a certificate.**

●   Course may be used to meet General Education requirements.

COMPUTER AIDED DESIGN AND DRAFTING TECHNOLOGY

Certificates of Achievement

These proficiency certificates, awarded for progress made in the CAD program, are available for all students, whether they are working toward an OCC certificate or an associate degree, or if each of these competency milestones are goals in and of themselves. These documents provide validation and some credentialing to show potential employers students' skill levels.

Level I (Fundamentals) Certificate of Achievement (CAD.LV1.CA)

Requirements		Credits
CAD 1100	Introduction to Computer Aided Design and Drafting	3
CAD 1200	Product Detailing	3
CAD 2102	Fundamentals of Part Design and its Applications	4
DDT 1000	Fundamentals for the Drafting Industry	3
DDT 1050	Product Drafting	3
	Total Credits	**16**

Level II (Intermediate) Certificate of Achievement (CAD.LV2.CA)

Requirements		Credits
Level I Certification Completed		16
CAD 2110	Topics in Design and Drafting Applications	4
CAD 2150	Advanced Curves and Surfaces	4
CAD 2190	Advanced Curves and Surfaces	4
DDT 1150	Descriptive Geometry	3
	Total Credits	**31**

Oakland Community College
Program Dashboard 2004-05

The purpose of the program dashboard is to provide a data driven tool designed for the systematic and objective review of all curriculum offerings. Based on a common set of measures which apply to all programs/disciplines the program dashboard facilitates the systematic identification of well performing as well as ailing curriculum so early intervention (triage) efforts can be undertaken.

In a rapidly changing economic and competitive environment it is necessary if not imperative to continually review curriculum offerings annually. Dashboard reports are a useful tool for monitoring program performance. In addition, they allow for an integrated approach for collecting, presenting, and monitoring data to meet long and short-term programmatic decision-making needs. As in an airplane, the dashboard consists of a wide variety of indicator lights to provide the "pilot" information about the overall performance of the highly complex machine.

Program Dashboard
Detail Report

Prefix CAD

Title Computer Aided Design and Drafting

Dashboard Score 9.07

	Program	College Wide
Sections Filled to Capacity	64.7%	81.3%
Percent of Completed Sections	81.0%	87.7%
Headcount Trend Ratio	0.89	1.02
Credit Hour Trend Ratio	0.88	1.01
Percent of Minority Students	25.7%	27.8%
Percent of Withdrawals	10.8%	17.5%
Percent of Incompletes	1.8%	1.8%
Student Course Completion Rate	78.6%	68.6%

Sections Filled to Capacity

Prefix   CAD

Prefix Title   Computer Aided Design and Drafting

Total Students   1,132

Total Capacity   1,750

Sections Filled To Capacity   64.7%

Definition:

The percent of all available seats which are filled on the terms official census date. Time Frame: Academic Year (Summer II, Fall, Winter, Summer I). Data Source: One-tenth-day of each term.

Methodology:

Total number of sections (credit courses only) that are filled to their designated capacity e.g. allocated seats divided by the total number of available seats in all sections throughout the academic year (July 1 through June 30). In other words, how many sections are filled to their capacity on the sections 1/10 day out of all sections? Include sections that are more than filled / overflowing in calculation.

One-Tenth Day data shows the capacity filled numbers at approximately 3 weeks after the Fall and Winter terms begin; and 1 week after the Summer I and II terms begin. This data will not provide additional enrollment data if the sections begin after the one-tenth day.

While a section may only have a few students enrolled in it the college is able to designate some sections as 'full' so that they are not cancelled (per OCCFA Master Agreement). Therefore some disciplines may show low fill capacity rates, and the college never cancelled the sections or condense the students into fewer sections offering the same course.

Percent of Completed Sections

Prefix   CAD

Prefix Title   Computer Aided Design and Drafting

Active Sections   94

Cancelled Sections   22

Total Sections   116

Percent of Completed Sections 81.0%

Definition:

Of all offered sections, the percent of sections that are completed (not cancelled). Time Frame: Academic Year (Summer II, Fall, Winter, Summer I). Data Source: End of session, after grades are posted.

Methodology:

Annually, the total number of offered credit sections that are completed. Formula = number of completed credit sections divided by the total number of offered credit sections. In other words, the percent of these sections that are not cancelled.

Headcount Trend Ratio

Prefix CAD

Prefix Title Computer Aided Design and Drafting

Headcount Year 1	1,626
Headcount Year 2	1,358
Headcount Year 3	1,441
Headcount Year 4	1,146
Headcount Period 1	1,475
Headcount Period 2	1,315
Headcount Ratio	0.89

Definition:

Trend in student headcount based on a three year rolling average. Time Frame: Academic Year (Summer II, Fall, Winter, Summer I). Data Source: One-tenth-day of each term. (Note: this measure is not used in the calculation of the Program Dashboard score since it parallels trends depicted in Credit Hours.)

Methodology:

In order to establish a meaningful enrollment statistic which applies to large as well as small disciplines/programs a "ratio" was calculated based on a three year rolling average of student headcount.

The formula used to calculate this measure involves three simple steps:

a.☐Year 1 + Year 2 + Year 3 / 3 = Period 1
b.☐Year 2 + Year 3 + Year 4 / 3 = Period 2
c.☐Period 2 / Period 1 = Ratio

If the ratio is greater than "1" this means there has been an enrollment increase. On the other hand, if the ratio is less than "1" this translates into an enrollment decline. The larger the number the larger the enrollment increase. Likewise, the lower the number the greater the enrollment decline.

Credit Hour Trend Ratio

Prefix   CAD

Prefix Title   Computer Aided Design and Drafting

Credit Hour Year 1	5,669
Credit Hour Year 2	4,760
Credit Hour Year 3	4,911
Credit Hour Year 4	3,801
Credit Hour Period 1	5,113
Credit Hour Period 2	4,491
Credit Hour Ratio	0.88

Definition:

Trend in student credit hours based on a three year rolling average. Time Frame: Academic Year (Summer II, Fall, Winter, Summer I). Data Source: One-tenth-day of each term.

Methodology:

In order to establish a meaningful enrollment statistic which applies to large as well as small disciplines/programs a "ratio" was calculated based on a three year rolling average of student credit hours.

The formula used to calculate this measure involves three simple steps:

a.☐ Year 1 + Year 2 + Year 3 / 3 = Period 1
b.☐ Year 2 + Year 3 + Year 4 / 3 = Period 2
c.☐ Period 2 / Period 1 = Ratio

If the ratio is greater than "1" this means there has been an enrollment increase. On the other hand, if the ratio is less than "1" this translates into an enrollment decline. The larger the number the larger the enrollment increase. Likewise, the lower the number the greater the enrollment decline.

Percent of Minority Students

Prefix   CAD

Prefix Title   Computer Aided Design and Drafting

Minority Students   192

Total Students   748

Percent of Minority Students   25.7%

Definition:

The percent of students who are minority. Minority status is self-reported by the student and includes: African American, Asian, Hispanic, Native American Indian and Other. Time Frame: Academic Year (Summer II, Fall, Winter, Summer I). Data Source: One-tenth-day of each term.

Methodology:

Percentages are based on those students enrolled on the terms official census date (one tenth day) and excludes missing data.

Percent of Withdrawals

Prefix   CAD

Prefix Title   Computer Aided Design and Drafting

Total Withdrawals   120

Total Grades   1,110

Percent of Withdrawals   10.8%

Definition:

The percent of students who withdraw from their course after the term begins. Time Frame: Academic Year (Summer II, Fall, Winter, Summer I). Data Source: End of session files, after grades are posted.

Methodology:

Percent of withdrawals is derived by dividing the total number of student initiated withdrawals by the total number of grades and marks awarded throughout the academic year. The Withdrawal-Passing (WP), and Withdrawal-Failing (WF) are considered Withdrawals (W). Meanwhile, calculations exclude: Audit (AU), Not Attended (N), and Not Reported (NR).

Percent of Incompletes

Prefix   CAD

Prefix Title   Computer Aided Design and Drafting

Total Incompletes   20

Total Grades   1,110

Percent of Incompletes   1.8%

Definition:

The percent of students who receive an incomplete in their course. Time Frame: Academic Year (Summer II, Fall, Winter, Summer I). Data Source: End of session files, after grades are posted.

Methodology:

Percent of incompletes is derived by dividing the total number of incompletes by the total number of grades and marks awarded throughout the academic year. The Continuous Progress (CP) grade is considered an Incomplete (I). Meanwhile, calculations exclude: Audit (AU), Not Attended (N), and Not Reported (NR).

Student Course Completion Rate

Prefix　　　　CAD

Prefix Title　　Computer Aided Design and Drafting

Successful Grades　　　　　872

Total Student Grades　　　　1,110

Student Course Completion Rate　　78.6%

Definition:

The percent of students who successfully complete a course with a grade of "C" or higher. Time Frame: Academic Year (Summer II, Fall, Winter, Summer I). Data Source: End of session files, after grades are posted.

Methodology:

Student success rates are based on end of session data after all grades have been posted. Data includes grades from the entire academic year (Summer II, Fall, Winter, and Summer I). The following grades/marks are excluded from the calculation: Audit (AU), Not Attended (N) and Not Reported (NR).

Oakland Community College
Program Dashboard Report
2004-05

Computer Aided Design and Drafting CAD
Dashboard Score: 9.07

Measures	Current Score	Benchmarks Trouble Score	Target	Percent of Target Achieved	Weight	Weighted Score
Sections Filled to Capacity	64.7%	75.0%	90.0%	71.9%	18.0%	1.29
Percent of Completed Sections	81.0%	75.0%	90.0%	90.0%	14.2%	1.28
Credit Hour Trend Ratio	0.88	0.75	1.30	68.0%	15.3%	1.04
Percent of Minority Students	25.7%	16.9%	18.8%	136.7%	6.1%	0.83
Percent of Withdrawals	10.8%	15.0%	0.0%	89.2%	12.0%	1.07
Percent of Incompletes	1.8%	3.0%	0.0%	98.2%	7.9%	0.78
Student Course Completion Rate	78.6%	60.0%	75.0%	104.8%	26.5%	2.78

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Computer Aided Design and Drafting Credit Hour Trends Report

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Degree Trends Report

Automotive Body Design Op./CAD

CAD.VDO

2004-05

Prepared by:
Oakland Community College
Office of Institutional Research
July 31, 2006

Oakland Community College
Degree Trends Report
## Automotive Body Design Op./CAD (CAD.VDO)
1995-96 through 2004-05

The Degree Trends Report is developed by the Office of Institutional Research based
on data compiled from official college records which are submitted to the State
of Michigan for the IPEDS (Integrated Post-Secondary Education System) Annual Degrees
Conferred Report. The Degree Trends Report examines trends of OCC degrees,
based on specific programs. The standard format offers information about certificates and
associate degrees awarded. In the event that a given program offers only a
certificate or an associate degree, information describing the other type of award
will not be shown.

Trends over a specified period of time are illustrated by the following graphs for
Automotive Body Design Op./CAD (CAD.VDO)

- Ten-year trend showing the annual awards conferred in
  Automotive Body Design Op./CAD

- Rate of change in annual awards conferred in
  Automotive Body Design Op./CAD

- The three-year Moving Mean for annual awards conferred in
  Automotive Body Design Op./CAD

- Ten-year trend in awards conferred collegewide.

Questions regarding this report can be forwarded to the Office of Institutional Research
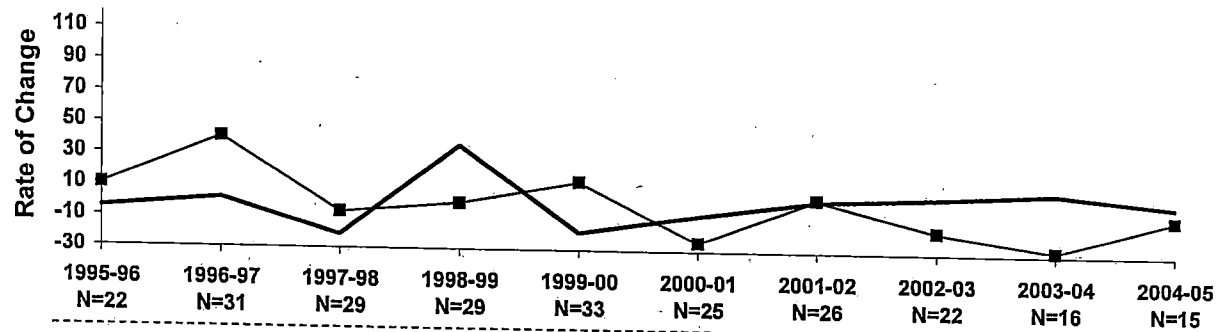at (248) 341-2123.

Oakland Community College
Associate Degrees and Certificates Awarded
Automotive Body Design Op./CAD
1995-96 through 2004-05
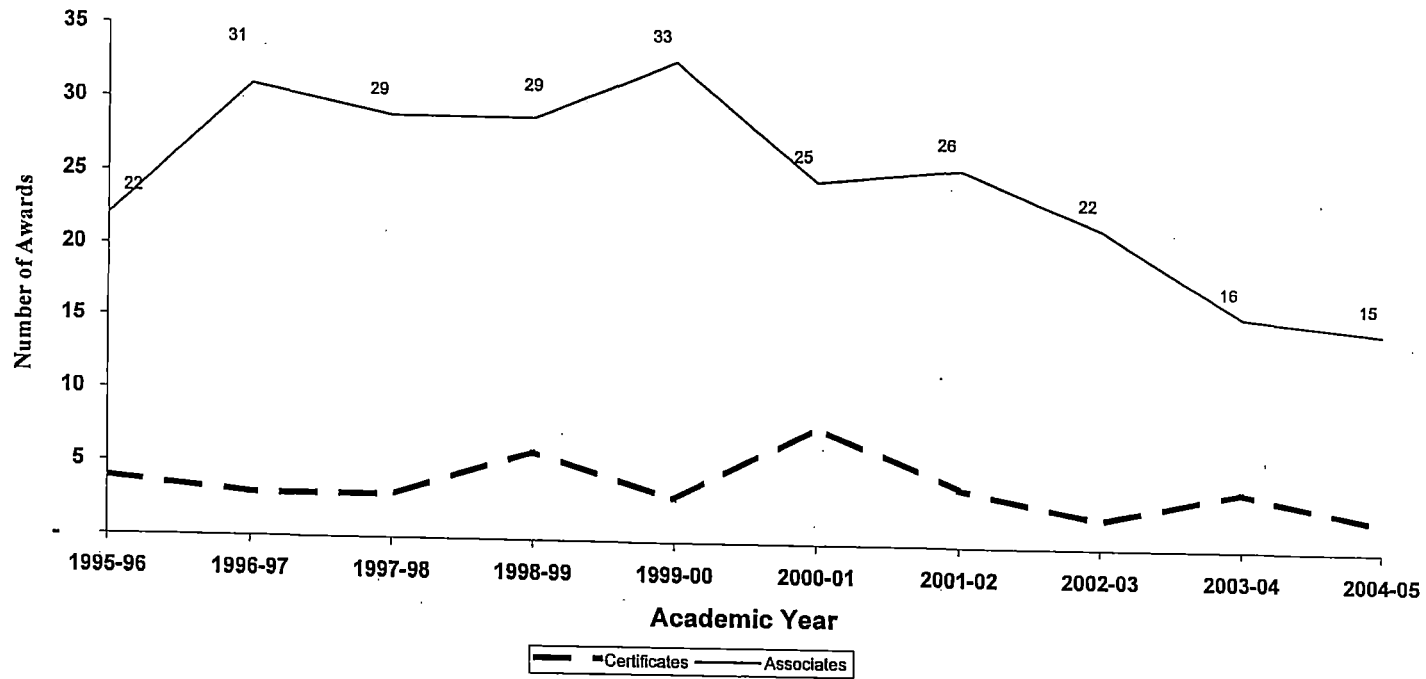
Academic Yr.	Certificates	Associates
1995-96	4	22
1996-97	3	31
1997-98	3	29
1998-99	6	29
1999-00	3	33
2000-01	8	25
2001-02	4	26
2002-03	2	22
2003-04	4	16
2004-05	2	15

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Oakland Community College
Rate of Change in Annual Awards
College-Wide
1995-96 through 2004-05

Associate Degrees

Rate of Change (y-axis: 110, 90, 70, 50, 30, 10, -10, -30)

Academic Year, N = Number of Program Degrees									
1995-96 N=22	1996-97 N=31	1997-98 N=29	1998-99 N=29	1999-00 N=33	2000-01 N=25	2001-02 N=26	2002-03 N=22	2003-04 N=16	2004-05 N=15

——Collegewide   —■—Program Rate of Change

Certificates

Rate of Change (y-axis: 200, 150, 100, 50, 0, -50)

Academic Year, N = Number of Program Certificates									
1995-96 N=4	1996-97 N=3	1997-98 N=3	1998-99 N=6	1999-00 N=3	2000-01 N=8	2001-02 N=4	2002-03 N=2	2003-04 N=4	2004-05 N=2

——College-wide   ——Program Rate of Change

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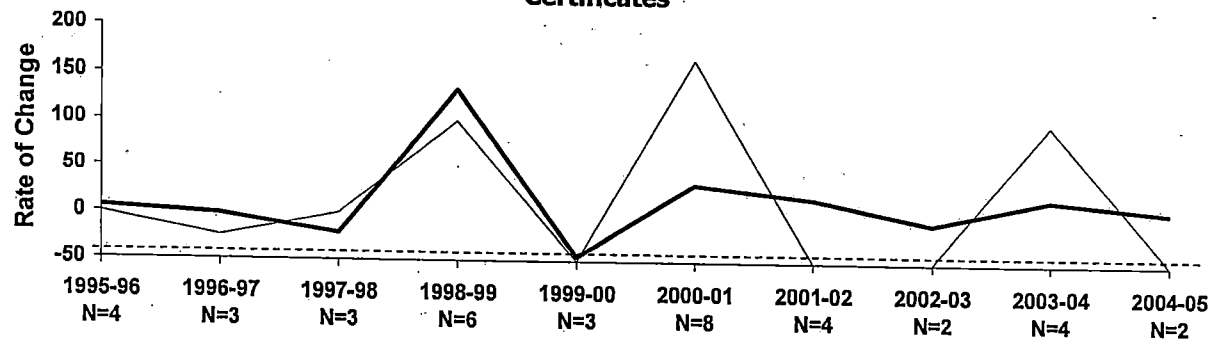
Oakland Community College
Three Year Moving Mean in Annual Awards
Automotive Body Design Op./CAD
1995-96 through 2003-04

Associate Degrees

Legend: Actual Degrees, Moving Mean

Associate Degrees Awarded (y-axis: 5 to 40)

Academic Year (x-axis: 1995-96 through 2003-04)

Certificates

Legend: Actual Certificates, Moving Mean

Certificates Awarded (y-axis: 1 to 9)

Academic Year (x-axis: 1995-96 through 2003-04)

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Oakland Community College
Associate Degrees and Certificates Awarded
College-Wide
1995-96 through 2004-05

Number of Awards (y-axis)

Academic Year	Degrees	Certificates
1995-96	1,843	89
1996-97	1,879	88
1997-98	1,483	69
1998-99	2,028	161
1999-00	1,657	88
2000-01	1,543	117
2001-02	1,592	138
2002-03	1,692	127
2003-04	1,864	151
2004-05	1,908	160

Academic Year

Certificates —— Degrees

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OAKLAND
COMMUNITY
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Credit Hour Trends Report
Computer Aided Design & Drafting
CAD
2004-05

Prepared by:

Oakland Community College

Office of Institutional Research

July 31, 2006

Oakland Community College
Credit Hour Trends Report
Computer Aided Design & Drafting
1994-95 through 2004-05

Each year the Office of Institutional Research prepares the Credit Hour Trends Report, based on
data submitted to the State of Michigan in the annual ACS-6 (Activities Classification
Structure) process. This report is based on each course section's official count date (1/10th Day). The
Credit Hour Trends Report examines annual (July 1 - June 30) enrollment trends of OCC
disciplines, based on course prefix codes.

Trends over a specified period of time are illustrated by the following graphs for
Computer Aided Design & Drafting.

- Graph depicting ten-year trend in student credit hours generated by
  Computer Aided Design & Drafting

- Graphs depicting three-year moving mean and rate of change in student credit hours for
  Computer Aided Design & Drafting.

- Ten-year trend in annual credit hours generated Collegewide.

Questions regarding this report can be forwarded to the Office of Institutional Research at
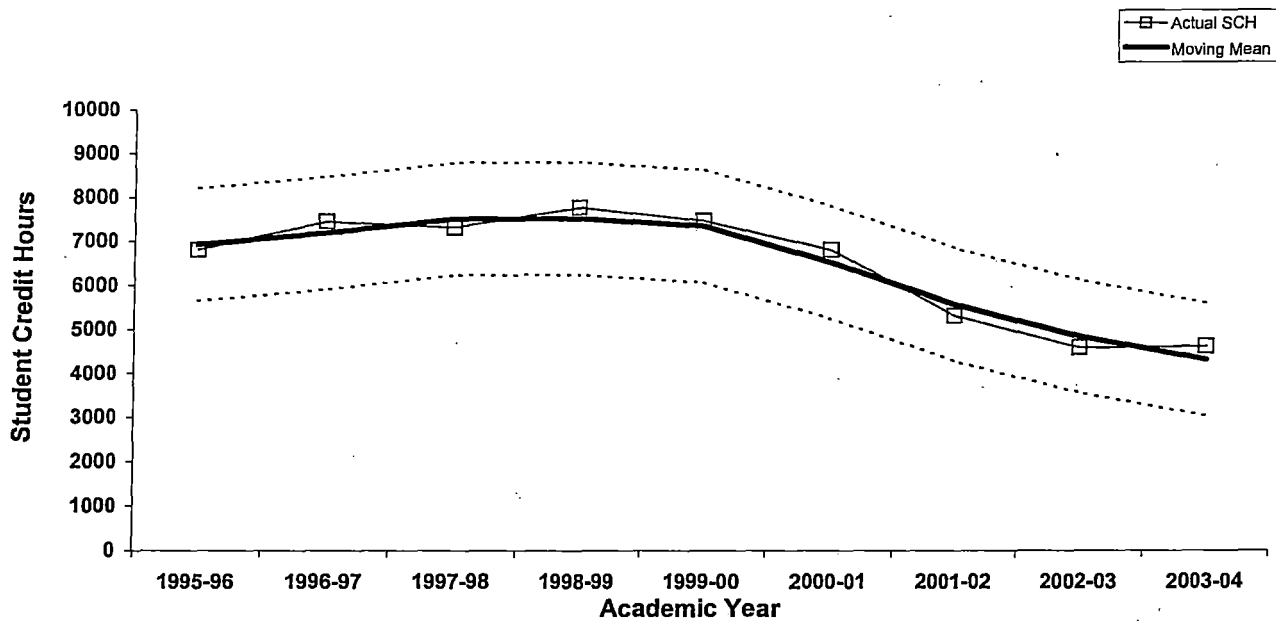(248) 341-2123.

Oakland Community College
Ten-Year Trend in Student Credit Hours
Computer Aided Design & Drafting
1994-95 through 2004-05

	1994-95 SCH	1995-96 SCH	1996-97 SCH	1997-98 SCH	1998-99 SCH	1999-00 SCH	2000-01 SCH	2001-02 SCH	2002-03 SCH	2003-04 SCH	2004-05 SCH	5-Year % Change	10-Year % Change
Computer Aided Design & C	6,520	6,811	7,449	7,315	7,776	7,476	6,813	5,320	4,595	4,626	3,740	-50.0	-42.6
College Wide Totals	471,593	451,159	443,471	431,521	440,448	438,997	453,054	447,928	478,827	468,777	472,892	7.7	0.3

Academic Year

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Oakland Community College
Three-Year Moving Mean
Computer Aided Design & Drafting
1995-96 through 2003-04

Legend:
- ─☐─ Actual SCH
- ── Moving Mean

Student Credit Hours vs **Academic Year**

(Y-axis: 0 to 10000 by 1000; X-axis: 1995-96, 1996-97, 1997-98, 1998-99, 1999-00, 2000-01, 2001-02, 2002-03, 2003-04)

Rate of Change in Student Credit Hours 1995-96 through 2004-05

Legend:
- ─◆─ Computer Aided Design & Drafting
- ── Collegewide

Rate of Change vs **Academic Year**

(Y-axis: -25 to 15; X-axis: 1995-96, 1996-97, 1997-98, 1998-99, 1999-00, 2000-01, 2001-02, 2002-03, 2003-04, 2004-05)

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Oakland Community College
Ten-Year Trend in Student Credit Hours
College-Wide
1995-96 through 2004-05

Academic Year

1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
451,159	443,471	431,521	440,448	438,997	453,054	447,928	478,827	468,777	472,892

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Computer Aided Engineering Tech Opt.

CAD.CAE

2004-05

Oakland Community College
Degree Trends Report
Computer Aided Engineering Tech Opt. (CAD.CAE)
## 1995-96 through 2004-05

The Degree Trends Report is developed by the Office of Institutional Research based
on data compiled from official college records which are submitted to the State
of Michigan for the IPEDS (Integrated Post-Secondary Education System) Annual Degrees
Conferred Report. The Degree Trends Report examines trends of OCC degrees,
based on specific programs. The standard format offers information about certificates and
associate degrees awarded. In the event that a given program offers only a
certificate or an associate degree, information describing the other type of award
will not be shown.

Trends over a specified period of time are illustrated by the following graphs for
Computer Aided Engineering Tech Opt. (CAD.CAE)

- Ten-year trend showing the annual awards conferred in
  Computer Aided Engineering Tech Opt.

- Rate of change in annual awards conferred in
  Computer Aided Engineering Tech Opt.

- The three-year Moving Mean for annual awards conferred in
  Computer Aided Engineering Tech Opt.

- Ten-year trend in awards conferred collegewide.

Questions regarding this report can be forwarded to the Office of Institutional Research
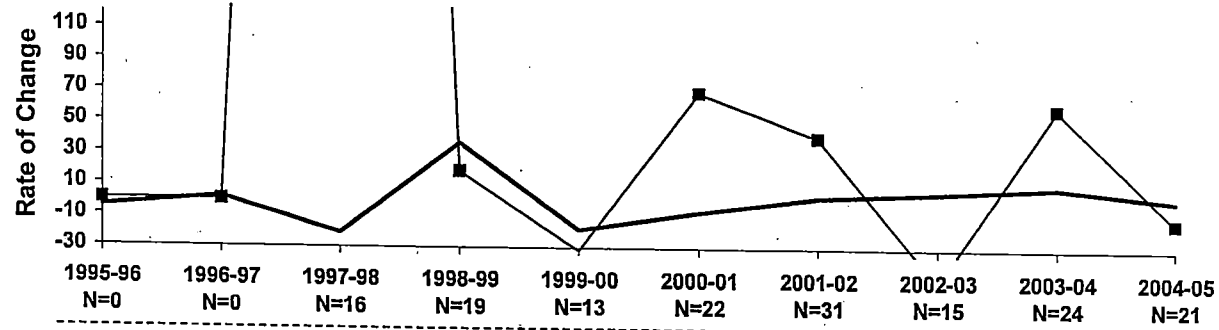at (248) 341-2123.

Oakland Community College
Associate Degrees and Certificates Awarded
Computer Aided Engineering Tech Opt.
1995-96 through 2004-05
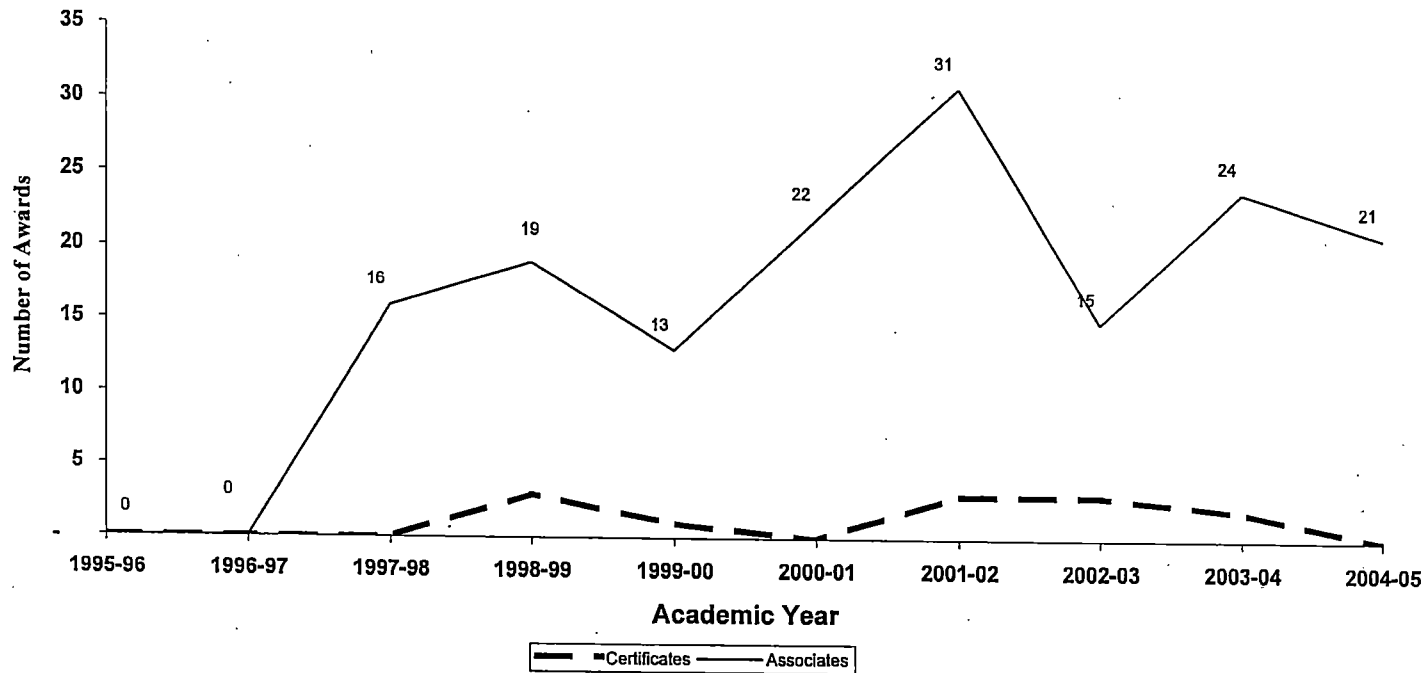
Academic Yr.	Certificates	Associates
1995-96	0	0
1996-97	0	0
1997-98	0	16
1998-99	3	19
1999-00	1	13
2000-01	0	22
2001-02	3	31
2002-03	3	15
2003-04	2	24
2004-05	0	21

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Oakland Community College
Rate of Change in Annual Awards
College-Wide
1995-96 through 2004-05

Associate Degrees

Academic Year, N = Number of Program Degrees

Year	N
1995-96	N=0
1996-97	N=0
1997-98	N=16
1998-99	N=19
1999-00	N=13
2000-01	N=22
2001-02	N=31
2002-03	N=15
2003-04	N=24
2004-05	N=21

Legend: —— Collegewide   —■— Program Rate of Change

Certificates

Academic Year, N = Number of Program Certificates

Year	N
1995-96	N=0
1996-97	N=0
1997-98	N=0
1998-99	N=3
1999-00	N=1
2000-01	N=0
2001-02	N=3
2002-03	N=3
2003-04	N=2
2004-05	N=0

Legend: —— College-wide   —— Program Rate of Change

Oakland Community College
Three Year Moving Mean in Annual Awards
Computer Aided Engineering Tech Opt.
1995-96 through 2003-04

Associate Degrees

Legend:
- —□— Actual Degrees
- ▬ Moving Mean

Y-axis: Associate Degrees Awarded (0, 5, 10, 15, 20, 25, 30, 35)

X-axis (Academic Year): 1995-96, 1996-97, 1997-98, 1998-99, 1999-00, 2000-01, 2001-02, 2002-03, 2003-04

Certificates

Legend:
- —□— Actual Certificates
- ▬ Moving Mean

Y-axis: Certificates Awarded (0, 1, 2, 3, 4)

X-axis (Academic Year): 1995-96, 1996-97, 1997-98, 1998-99, 1999-00, 2000-01, 2001-02, 2002-03, 2003-04

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Oakland Community College
Associate Degrees and Certificates Awarded
College-Wide
1995-96 through 2004-05

Number of Awards

1,843	1,879	1,483	2,028	1,657	1,543	1,592	1,692	1,864	1,908
89	88	69	161	88	117	138	127	151	160

1995-96　1996-97　1997-98　1998-99　1999-00　2000-01　2001-02　2002-03　2003-04　2004-05

Academic Year

— Certificates — Degrees

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OAKLAND
COMMUNITY
COLLEGE

Credit Hour Trends Report
Computer Aided Design & Drafting
CAD
2004-05

Prepared by:

Oakland Community College

Office of Institutional Research

July 31, 2006

Oakland Community College
Credit Hour Trends Report
Computer Aided Design & Drafting
1994-95 through 2004-05

Each year the Office of Institutional Research prepares the Credit Hour Trends Report, based on data submitted to the State of Michigan in the annual ACS-6 (Activities Classification Structure) process. This report is based on each course section's official count date (1/10th Day). The Credit Hour Trends Report examines annual (July 1 - June 30) enrollment trends of OCC disciplines, based on course prefix codes.

Trends over a specified period of time are illustrated by the following graphs for Computer Aided Design & Drafting.

- Graph depicting ten-year trend in student credit hours generated by Computer Aided Design & Drafting

- Graphs depicting three-year moving mean and rate of change in student credit hours for Computer Aided Design & Drafting.

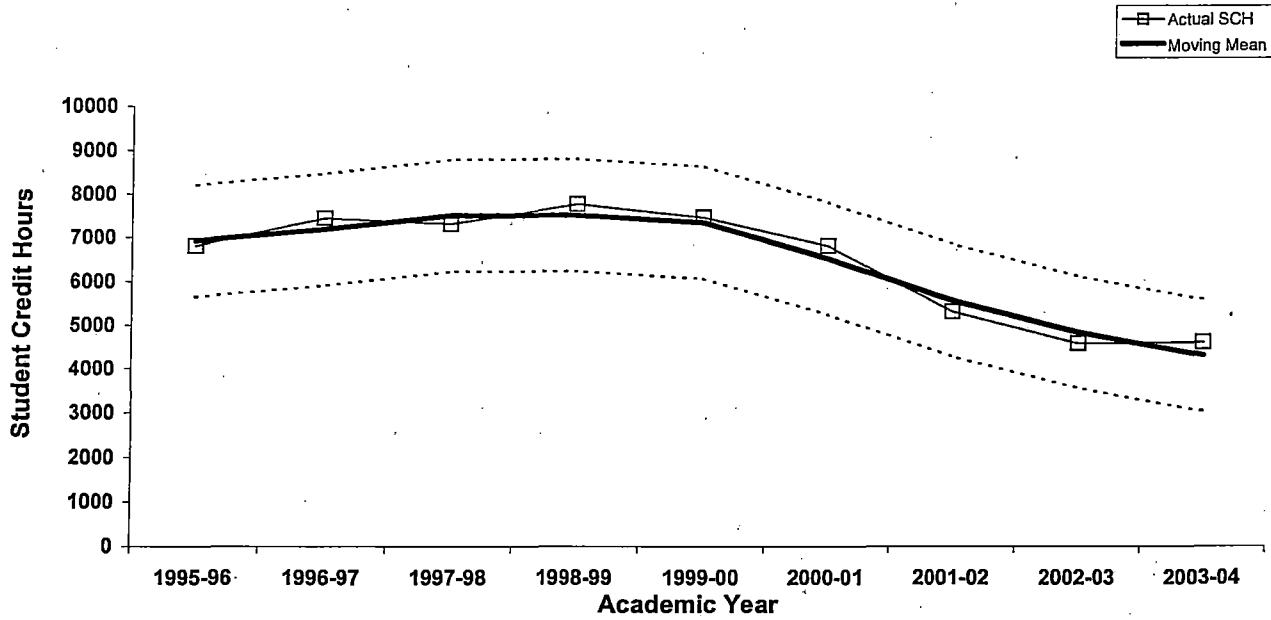- Ten-year trend in annual credit hours generated Collegewide.

Questions regarding this report can be forwarded to the Office of Institutional Research at (248) 341-2123.

Oakland Community College
Ten-Year Trend in Student Credit Hours
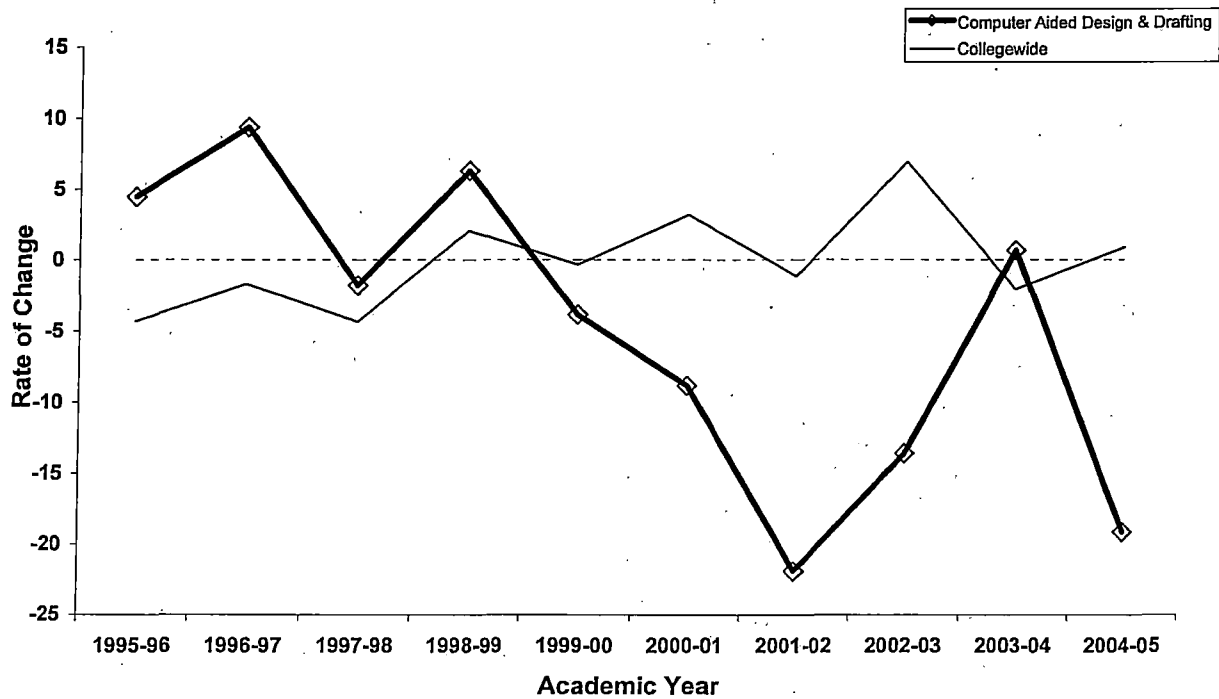## Computer Aided Design & Drafting
1994-95 through 2004-05

	1994-95 SCH	1995-96 SCH	1996-97 SCH	1997-98 SCH	1998-99 SCH	1999-00 SCH	2000-01 SCH	2001-02 SCH	2002-03 SCH	2003-04 SCH	2004-05 SCH	5-Year % Change	10-Year % Change
Computer Aided Design & D	6,520	6,811	7,449	7,315	7,776	7,476	6,813	5,320	4,595	4,626	3,740	-50.0	-42.6
College Wide Totals	471,593	451,159	443,471	431,521	440,448	438,997	453,054	447,928	478,827	468,777	472,892	7.7	0.3

Student Credit Hours vs. Academic Year

Data points: 6,520 (1994-95), 6,811 (1995-96), 7,449 (1996-97), 7,315 (1997-98), 7,776 (1998-99), 7,476 (1999-00), 6,813 (2000-01), 5,320 (2001-02), 4,595 (2002-03), 4,626 (2003-04), 3,740 (2004-05)

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Oakland Community College
Three-Year Moving Mean
Computer Aided Design & Drafting
1995-96 through 2003-04

Legend:
- Actual SCH
- Moving Mean

Chart — Student Credit Hours vs Academic Year (1995-96 through 2003-04), Y-axis 0 to 10000.

Rate of Change in Student Credit Hours 1995-96 through 2004-05

Legend:
- Computer Aided Design & Drafting
- Collegewide

Chart — Rate of Change vs Academic Year (1995-96 through 2004-05), Y-axis -25 to 15.

Oakland Community College
Ten-Year Trend in Student Credit Hours
College-Wide
1995-96 through 2004-05

Student Credit Hours

1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
451,159	443,471	431,521	440,448	438,997	453,054	447,928	478,827	468,777	472,892

Academic Year

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Degree Trends Report

Computer Aided Design and Drafting Credit Hour Trends Report

OAKLAND
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COLLEGE

Degree Trends Report

Machine Tool Option/CAD

CAD.MTO

2004-05

Prepared by:
Oakland Community College
Office of Institutional Research
June 13, 2006

Oakland Community College
## Degree Trends Report
Machine Tool Option/CAD (CAD.MTO)
1995-96 through 2004-05

The Degree Trends Report is developed by the Office of Institutional Research based
on data compiled from official college records which are submitted to the State
of Michigan for the IPEDS (Integrated Post-Secondary Education System) Annual Degrees
Conferred Report. The Degree Trends Report examines trends of OCC degrees,
based on specific programs. The standard format offers information about certificates and
associate degrees awarded. In the event that a given program offers only a
certificate or an associate degree, information describing the other type of award
will not be shown.

Trends over a specified period of time are illustrated by the following graphs for
Machine Tool Option/CAD (CAD.MTO)

- Ten-year trend showing the annual awards conferred in
  Machine Tool Option/CAD

- Rate of change in annual awards conferred in
  Machine Tool Option/CAD

- The three-year Moving Mean for annual awards conferred in
  Machine Tool Option/CAD

- Ten-year trend in awards conferred collegewide.

Questions regarding this report can be forwarded to the Office of Institutional Research
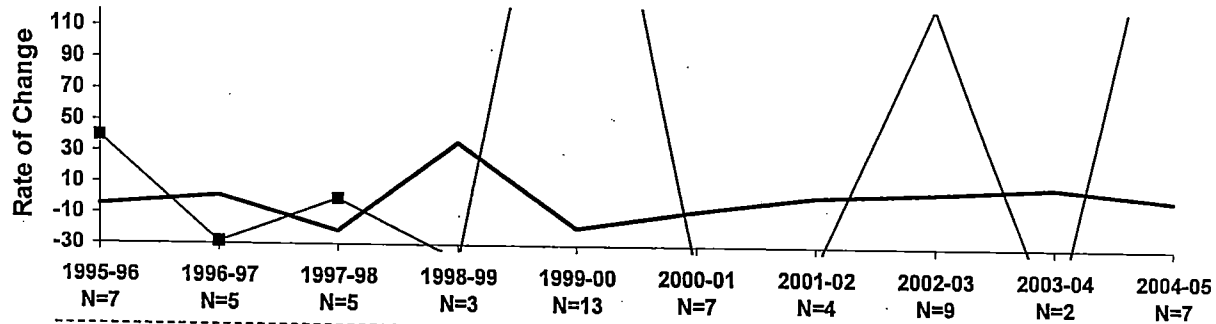at (248) 341-2123.

Oakland Community College
Associate Degrees and Certificates Awarded
Machine Tool Option/CAD
1995-96 through 2004-05
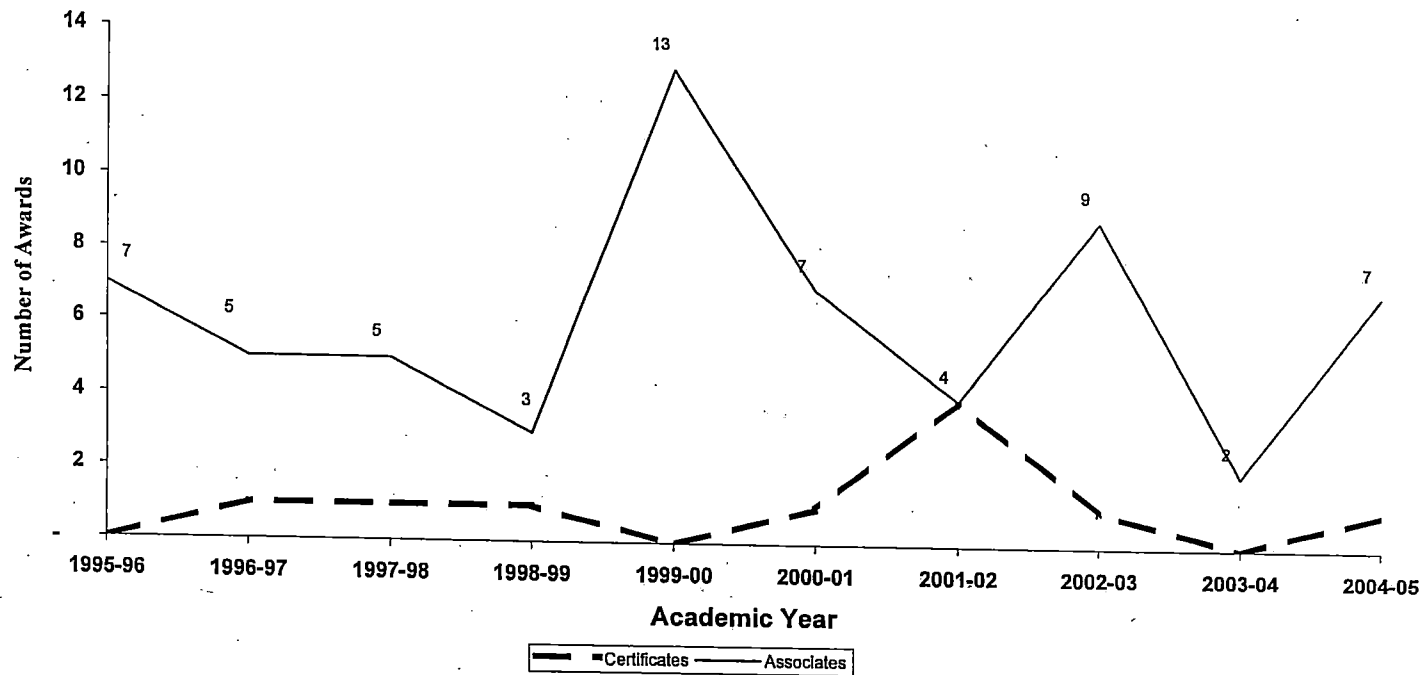
Academic Yr.	Certificates	Associates
1995-96	0	7
1996-97	1	5
1997-98	1	5
1998-99	1	3
1999-00	0	13
2000-01	1	7
2001-02	4	4
2002-03	1	9
2003-04	0	2
2004-05	1	7

6/13/2006

Oakland Community College
Rate of Change in Annual Awards
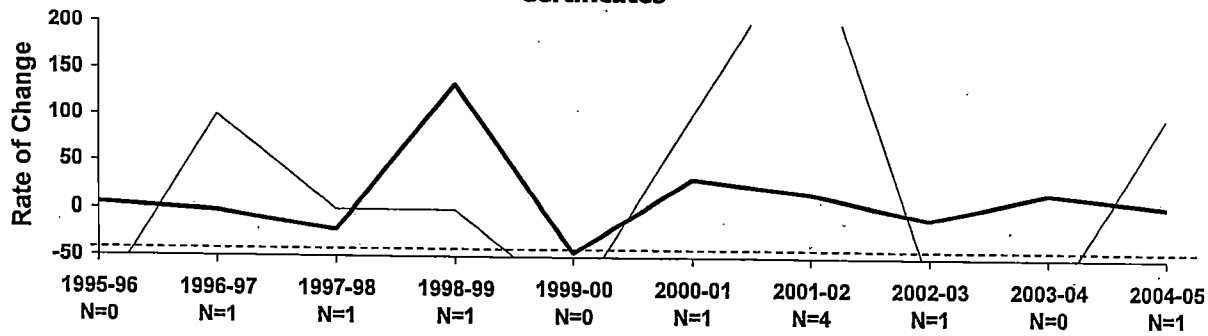## College-Wide
1995-96 through 2004-05

Associate Degrees

Academic Year, N = Number of Program Degrees

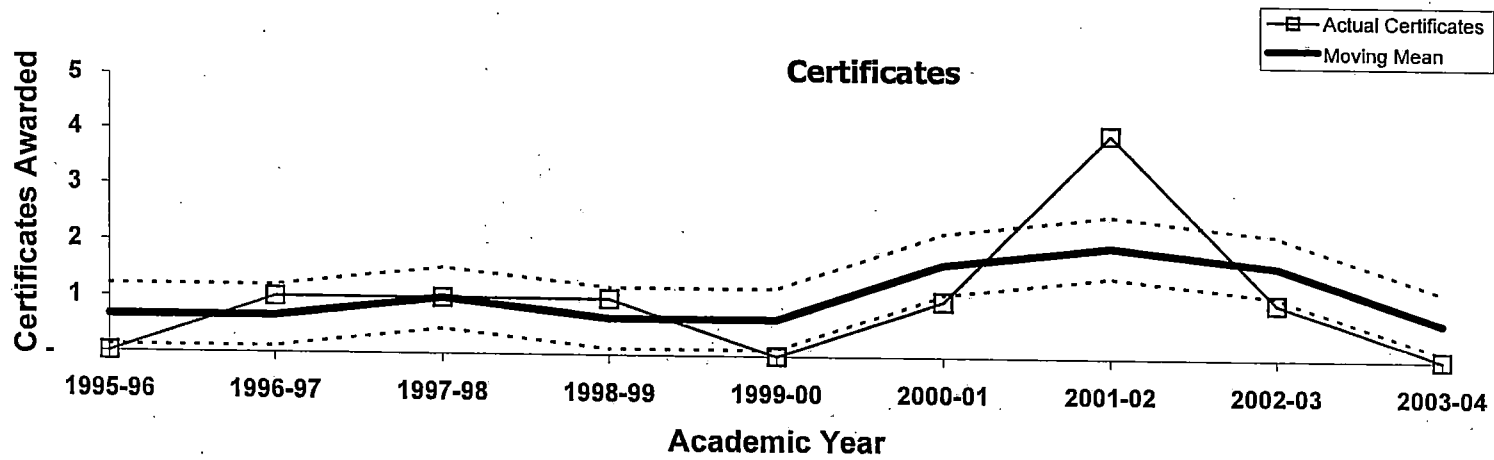— Collegewide   —■— Program Rate of Change
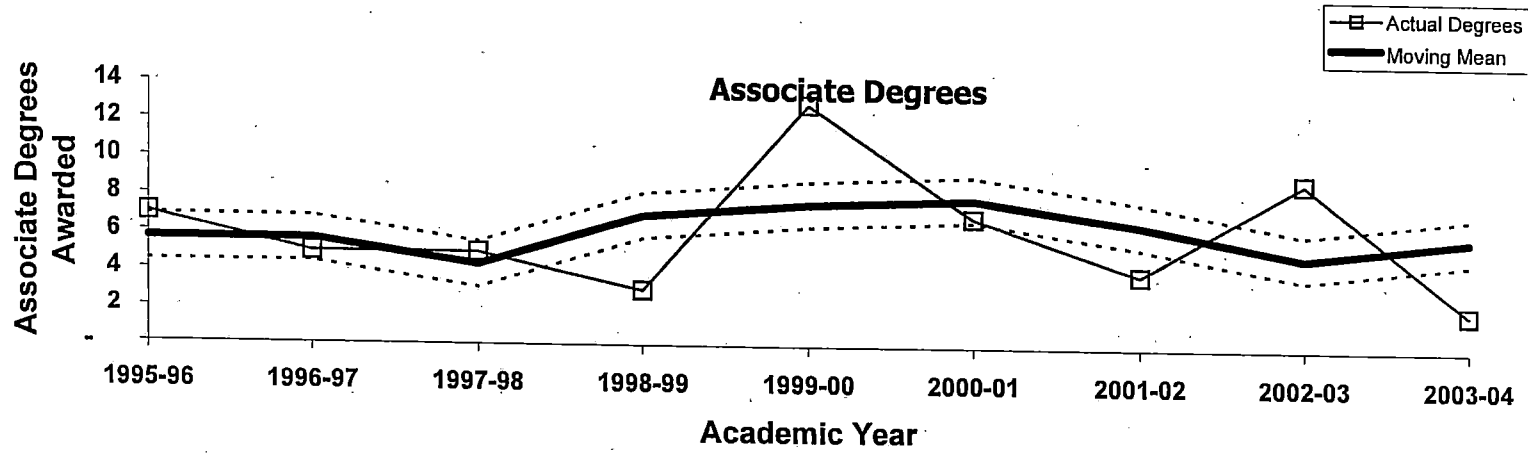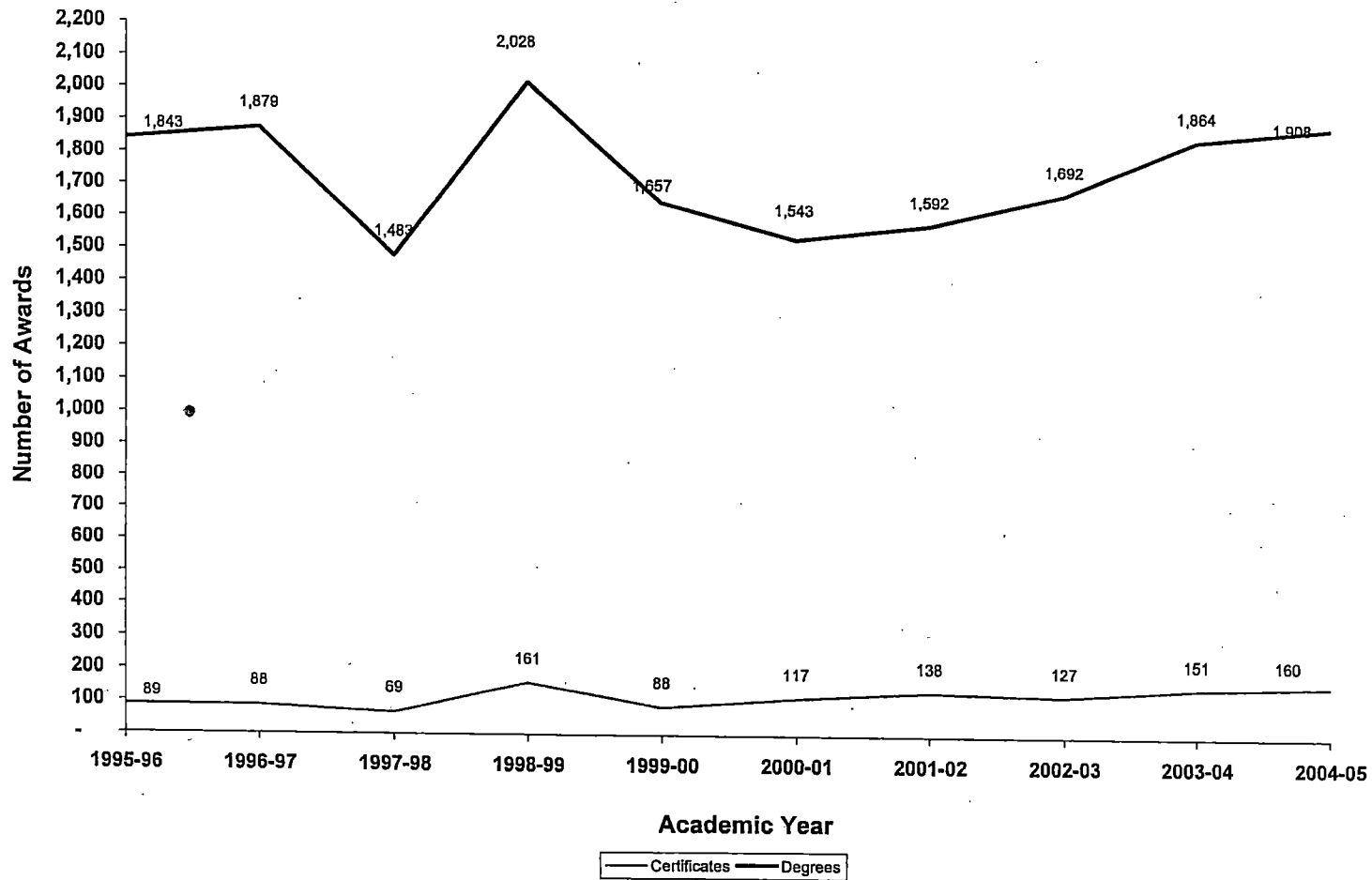
Certificates

Academic Year, N = Number of Program Certificates

— College-wide   — Program Rate of Change

Oakland Community College
Three Year Moving Mean in Annual Awards
Machine Tool Option/CAD
1995-96 through 2003-04

Associate Degrees

Legend: Actual Degrees, Moving Mean

Certificates

Legend: Actual Certificates, Moving Mean

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Oakland Community College
Associate Degrees and Certificates Awarded
College-Wide
1995-96 through 2004-05

Number of Awards (y-axis)

2,028 (1998-99 Degrees peak)

1,843 — 1,879 — 1,483 — 1,657 — 1,543 — 1,592 — 1,692 — 1,864 — 1,908 (Degrees line)

Certificates: 89 — 88 — 69 — 161 — 88 — 117 — 138 — 127 — 151 — 160

Academic Year: 1995-96, 1996-97, 1997-98, 1998-99, 1999-00, 2000-01, 2001-02, 2002-03, 2003-04, 2004-05

Legend: Certificates ——— Degrees

OAKLAND
COMMUNITY
COLLEGE

Credit Hour Trends Report
Computer Aided Design & Drafting
CAD
2004-05

Prepared by:

Oakland Community College

Office of Institutional Research

June 13, 2006

Oakland Community College
Credit Hour Trends Report
Computer Aided Design & Drafting
1994-95 through 2004-05

Each year the Office of Institutional Research prepares the Credit Hour Trends Report, based on data submitted to the State of Michigan in the annual ACS-6 (Activities Classification Structure) process. This report is based on each course section's official count date (1/10th Day). The Credit Hour Trends Report examines annual (July 1 - June 30) enrollment trends of OCC disciplines, based on course prefix codes.
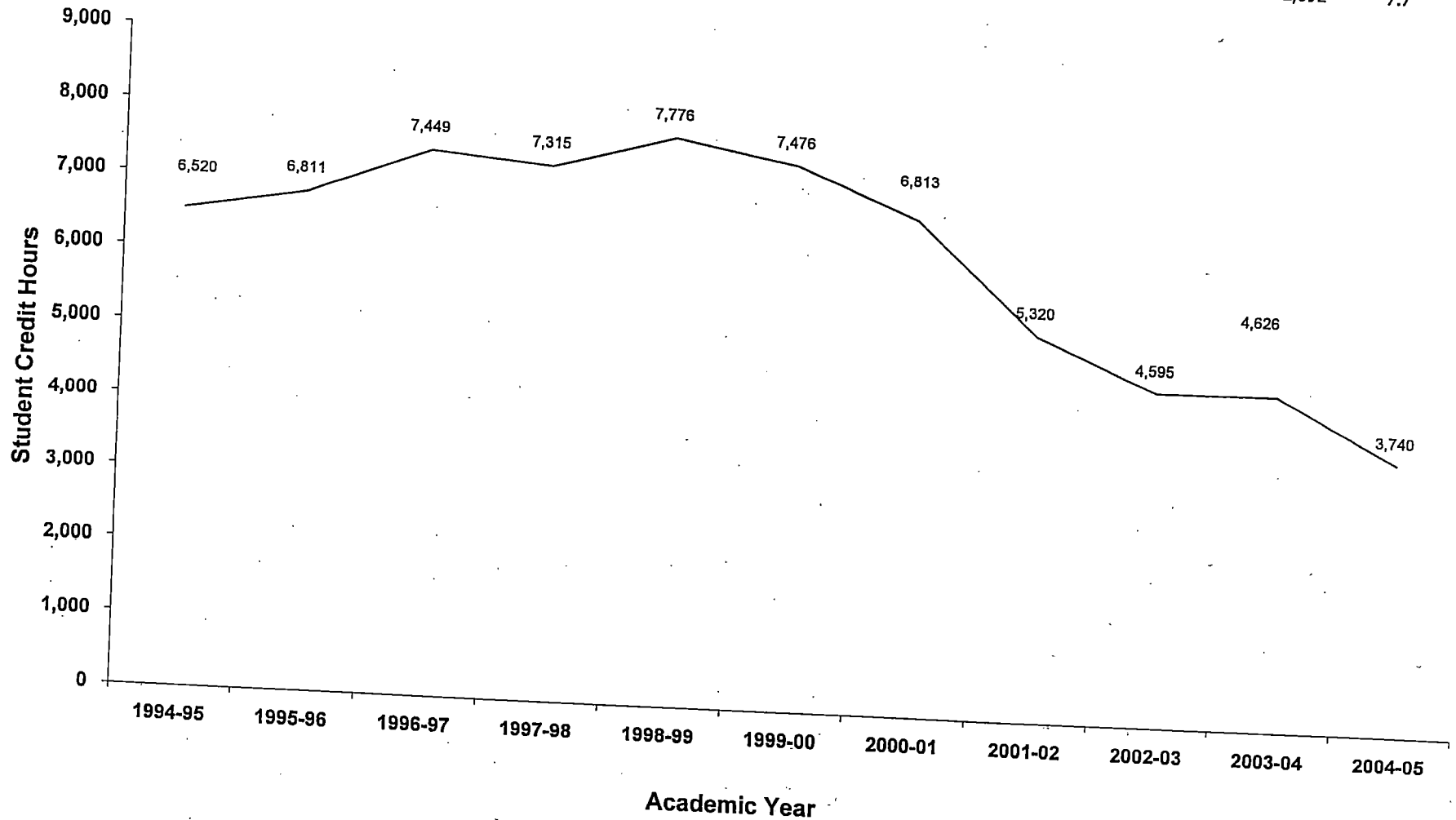
Trends over a specified period of time are illustrated by the following graphs for Computer Aided Design & Drafting.

- Graph depicting ten-year trend in student credit hours generated by Computer Aided Design & Drafting

- Graphs depicting three-year moving mean and rate of change in student credit hours for Computer Aided Design & Drafting.

- Ten-year trend in annual credit hours generated Collegewide.

Questions regarding this report can be forwarded to the Office of Institutional Research at (248) 341-2123.
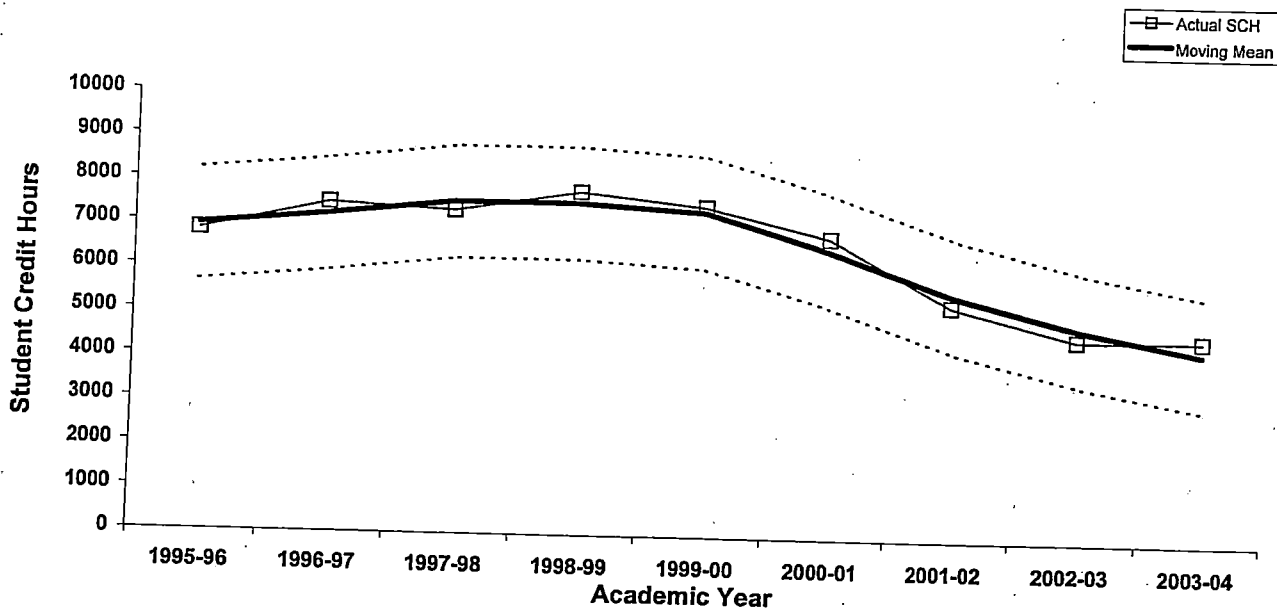
Oakland Community College
Ten-Year Trend in Student Credit Hours
Computer Aided Design & Drafting
1994-95 through 2004-05

|	1994-95 SCH	1995-96 SCH	1996-97 SCH	1997-98 SCH	1998-99 SCH	1999-00 SCH	2000-01 SCH	2001-02 SCH	2002-03 SCH	2003-04 SCH	2004-05 SCH	5-Year % Change	10-Year % Change
Computer Aided Design & D	6,520	6,811	7,449	7,315	7,776	7,476	6,813	5,320	4,595	4,626	3,740	-50.0	-42.6
College Wide Totals	471,593	451,159	443,471	431,521	440,448	438,997	453,054	447,928	478,827	468,777	472,892	7.7	0.3

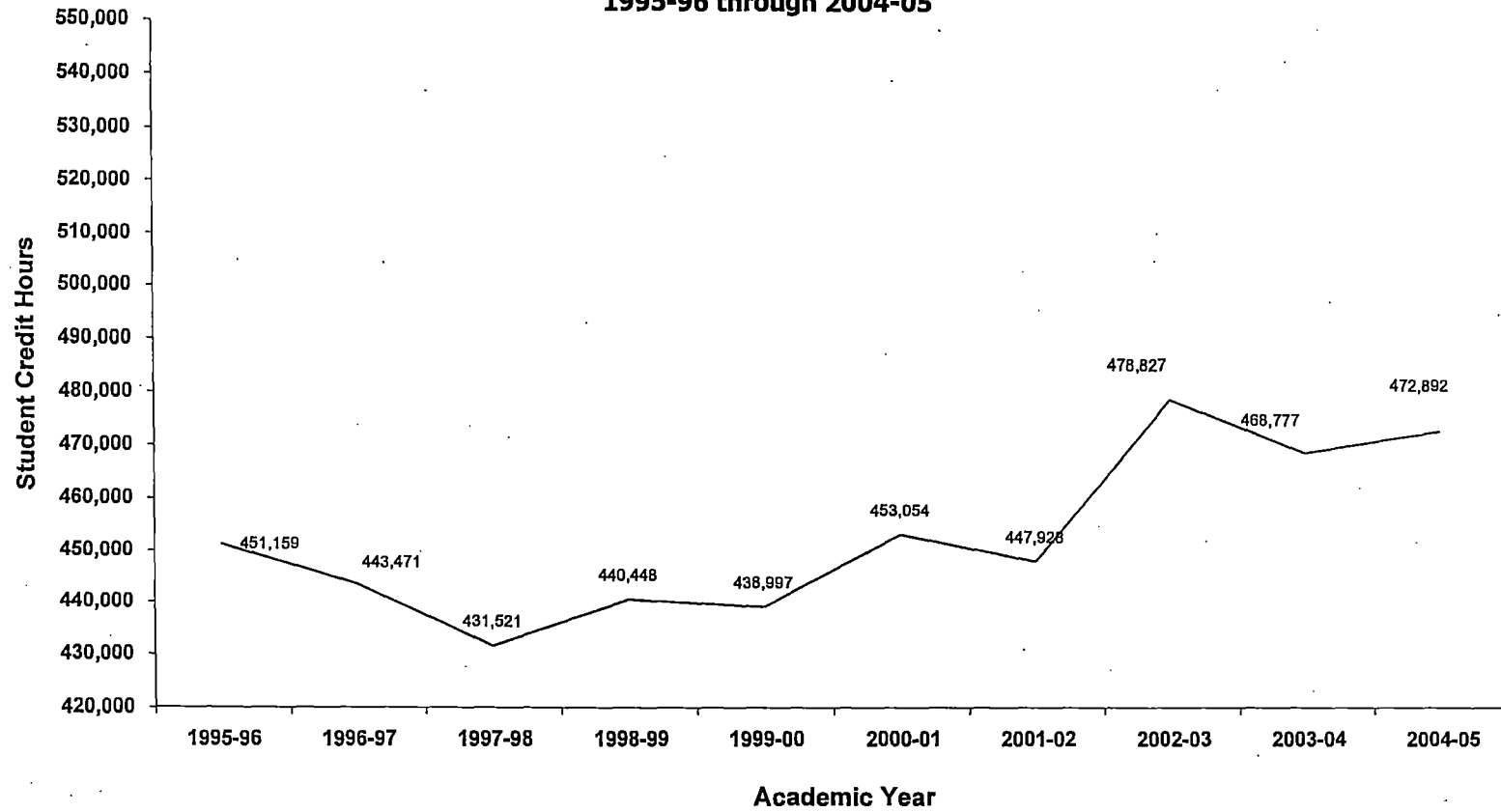Source: OCC, Office of Institutional Research

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Oakland Community College
Three-Year Moving Mean
Computer Aided Design & Drafting
1995-96 through 2003-04

Rate of Change in Student Credit Hours 1995-96 through 2004-05
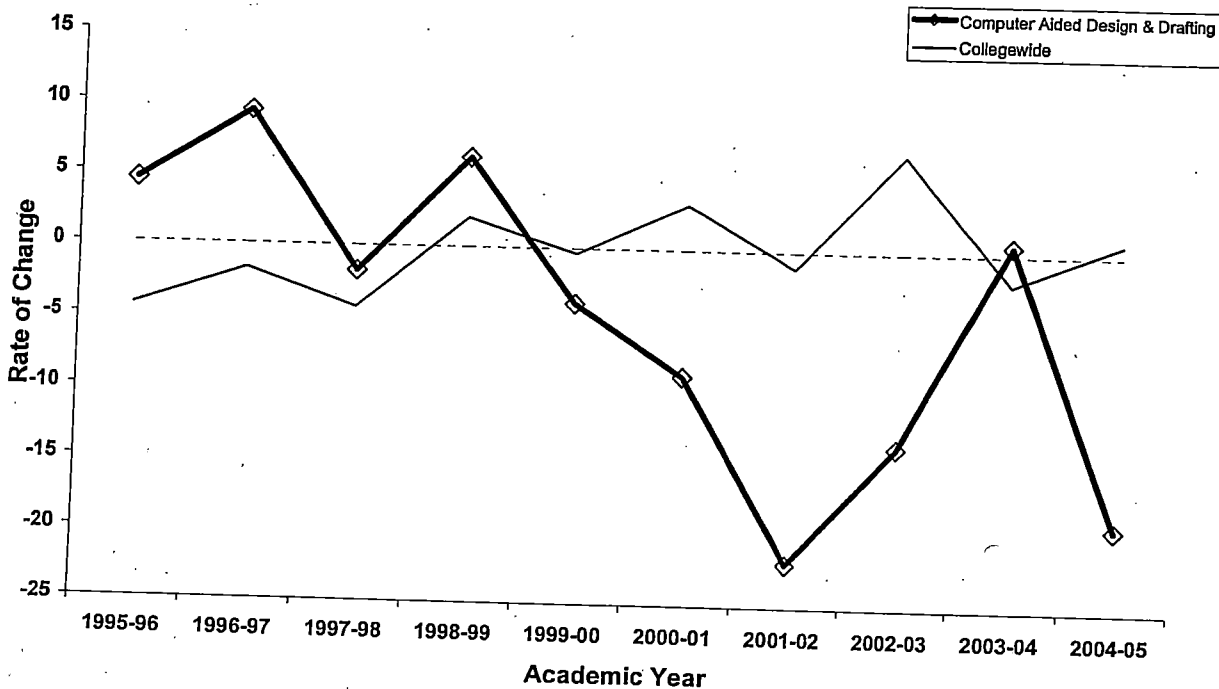
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Oakland Community College
Ten-Year Trend in Student Credit Hours
College-Wide
1995-96 through 2004-05

1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
451,159	443,471	431,521	440,448	438,997	453,054	447,928	478,827	468,777	472,892

6/13/2006