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#### ABSTRACT

A study was conducted of the fall 1989 course offerings at Michigan's 29 community colleges in order to determine the de facto condition of general education within community colleges. Modeled after the basic approach taken by the Center for the Study of Community Colleges (Los Angeles, California), course offerings were divided into the following five categories: general education; career education; remedial/developmental studies; physical education; and personal growth/community service. General education offerings were further broken down into major curricular areas, disciplines, and subdisciplines. Results indicated that out of the 22,931 course sections offered, 7,006 (30.55%) were in non-remedial general education areas, while the preponderance of offerings (i.e., 12,488 sections or 54.4%) were in career education. Of all general education courses, those in mathematics (n=1,901) and composition (n=1,770) were by far the most common in every school as well as statewide, accounting for 42.8% of the total. Of the 38 disciplines represented in the state's general education offerings, 24 provided only seven or fewer advanced or major concentration courses, while 13 disciplines offered no advanced courses at all. Three disciplines (i.e., political science, mathematics, and psychology) provided 55% of all sequential offerings. Conclusions, based on Michigan findings and other recent research, included the following: (1) community colleges may well be primarily career education institutions; (2) the low number of sequential course offerings may encourage community college students to transfer from the two-year institution as soon as feasible; and (3) community colleges are providing for breadth, but not depth in general education and liberal arts areas. (JMC)

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## The DeFacto State of General Education in Michigan Community Colleges

A Report on a Study Conducted by

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Funded by the Council of North Central Community and Junior Colleges

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### The De Facto State of General Education

Neal Raisman

The role, mission and legitimacy of community colleges have been under scrutiny and challenge for at least the past fifteen years. (Zwerling, 1976; Breneman and Nelson, 1981; Gaff, 1988; Brint and Karabel, 1989; Clowes and Levin, 1989; Grubb, 1990). Few go as far as Boyer's statement in College, (1987) which simply excluded community colleges as a valid part of American higher education because they do not provide the baccalaureate degree. But, others, such as Clowes and Levin (1989) have asked "are community, technical and junior colleges leaving higher education?" to which they answered with a fairly clear "yes". They based their position on their observation that community colleges had moved away from commitments to general education and transfer to focus more narrowly on vocational training, a position well documented by Brint and Karabel (1989). A significant portion of the challenges has to do with whether or not community colleges provide an effective avenue to the baccalaureate degree. Recent research indicates this is a fair concern (Dougherty, 1992) which even the



community college's supporters recognize and seek to change. (NAATC, 1991)

Dougherty (1992) the lower synthesized the research on baccalaureate attainment by students who enter community colleges and concluded the situation is a result of the abilities, background and psychological makeup of the students interacting with institutionalized hindrances in higher education. The institutional effect that Dougherty sites is unfortunately one which focuses on a less central concept of what makes up an educational institution. He discusses "the community college's weaker ability to integrate students into the academic and social life..." (p.192) weak commitments to transfer programs, and obstacles such as lack of financial aid, credit loss, weak social integration at the four-year college and transfer/grade shock. These are all significant but they by-pass factors which can define and generate an academic community of interest which if it does coalesce, does so around intellectual considerations such as how and what is taught. These areas of inquiry and activity need to be central to student educational attainment if it is to lead to persistence culminating in degrees.

The question then needs to focus on how teaching proceeds and what is taught. The "how" question takes several paths. There should be little question that community college faculty prize teaching as their primary concern. (Brodie, 1992) Engaging in research is of



little interest and so it does not remove them from the classroom. Thus, the focus needs to be placed on how instruction takes place. The work of Richardson, Fiske and Okun (1983) established that community college teachers may instruct in a manner which is not fully productive especially for developing higher order cognitive and integrative skills. Some of the weak instructional methods which they characterize as "bitting", i.e. providing just bits of information and knowledge, may derive from teaching attitudes toward the students. Other studies indicate that community college faculty retain low expectations of their students (Brint and Karabel, 1989; Cohen and Brawer, 1977); Seidman, 1985). Community college faculty may, the studies indicate, believe that their students are not academically capable or motivated. One survey indicated that only 19% of two-year college faculty believed that the transfer was a primary function of the community college and only 34% felt that students should be encouraged to achieve the baccalaureate degree. (Cohen, Brawer and Bensimon, 1985) would lead to considering that the primary focus on teaching for community college faculty is not toward leading students to achieving a bachelors degree finally but toward some other unstated purpose. But the question is "toward what other objective?"

A partial answer may be found in what is taught. The curriculum of the two-year colleges is a major factor defining the future success of their students. If students are to persist and attain academically, they must have the academic "building blocks" of



knowledge, abilities and skills tained in general education required to support their goals. Put succinctly, a growing concern needs to be whether of not community colleges are providing the necessary general education required to meet the needs and goals of their students, society and to be recognized as colleges, not just vocational training institutions? If two-year schools are to be full partners in higher education, what is culturally pictured as "college" in our society, they must have a valid general education component which in turn develops the skills, knowledge and ability leading to becoming liberally educated and culturally integrated. This aspect of the educational mission for the community college is empowered through the general education offerings and instruction. (Gaff, 1990; Raisman, 1991) Therefore, it is important that the strength of general education in the community college be focused on to determine its role in defining whether or not the institution does or does not provide for student needs and goals.

#### Background to the Study

A study of the most recent results of the Community College Goals Inventory (CCGI) by Cross and Fiedeler (1989) found that the community college administrators they surveyed stated general education had assumed the highest level of importance nationally. This priority for general education would seem to be corroborated by the findings of El-Khawas reported in <u>Campus Trends 1990</u> (Otinger, 1990). El-Khawas found that



Among two-year institutions, almost all (96 percent) have general education requirements. Seventy percent have requirements for all students, and 26 per cent have general education requirements for some students, primarily because vocational certificate programs have different general requirements (p.52)

These findings viewed against additional information in the CCGI, lead to further question. The same administrators who held general education as the highest priority also stated that there was a gap between what they recognized as important and the actual implementation of the same. The CCGI study found there was significant difference between saying general education was important and the institutional support and implementation of the priority.

Can both situations exist? Can community colleges claim general education as their h whest goal, state that almost all have general education requirement, yet believe they have not attained and achieved in this same area? Part of the problem may be definition. Mayhew's 1960 statement that "general education is really a meaningless term since people define it in about anyway their fancies dictate" (p.9) may still hold thirty years later. Definition of general education remain diffuse and confused (Cohen and Brawer, 1987) allowing colleges to make any determination they wish to make as to the strength and implementation of general education as was found in the study of Michigan's community colleges.

The Study



A study of the Fall 1989 course offerings of the twenty-nine community colleges in the state of Michigan was conducted as an attempt to determine the de facto condition of general education within community colleges. The state of Michigan was chosen since the twenty-nine two year colleges are all autonomous of any centralized governing board or regents. Thus the schools were free to determine and establish their own missions as well as the programs and curricula to carry out those missions. If the colleges determined what general education should be, they could move to implement changes to achieve their identified goals for example. Moreover, the twenty-nine two-year schools all defined themselves as comprehensive community colleges. They were not locked into a specific type of course or program offering as they might be if they were specifically vocational or technical colleges. If they emphasized offerings in any one area, it was not because they had to do so to meet a specific externally defined focus, but because they had made a decision to do so.

The definition of general education for the Michigan study was the same as that employed in the Cross and Fiedeler (1989) CCGI study. They defined general education as:

acquiring general knowledge and intellectual skills; achieving some level of basic competencies; preparing students for further advanced work; and acquiring skills and knowledge to function in society

This definition parallels the Center for the Study of Community College studies of liberal arts offerings (CSCC, 1982; 1987). These



studies were used as a baseline since in addition to providing a clear functional definition of general education, they also allowed for the potential for performing informative cross-correlation of results to existent databases. Additionally, though the definition did not include all the course offerings in the CSCC and Cohen and Brawer studies, the basic approach and methodology of the CSCC studies were used.

The Michigan study categorized offerings into one of five groupings:

- 1) general education,
- 2) career education,
- 3) remedial/developmental studies,
- 4) physical education,
- 5) personal growth/community service.

The general education offerings were further broken into major curricular areas, then into disciplines and finally into subdisciplines. These discipline categories attempted to follow the CSCC patterns but as was mentioned, some CSCC categories were rejected as actually being vocationally too narrow to be general education. Others were differently classified or necessarily divided into focus on what is usually considered a major course of study.



Course offerings were counted rather than course credit or enrollments. The offerings were chosen since they indicated what the college chose to provide to the students rather than what the students chose to take which would have generated a study of student preference rather than institutional emphasis. Course credits were not quantified since those would be indicators of the time and effort of the students and faculty in the individual courses rather than an institutional indicator. What courses and the number of sections per course and program a college offers is an indication of where it elects to place its emphasis since each offering must be supported with space, personnel, effort and dollars.

The category a specific course offering was placed into was determined by the course description in the individual college's catalogue, its placement within specific curricula, and when necessary, review with an appropriate instructional officer at the college. An additional check on classification was made against of Education's Department Activity the 1989-90 Michigan Classification Code Report of Public Community and Junior College Taxonomy/Student and Course Data (ACS). The ACS report is submitted by the individual colleges to the State to classify course offerings of that college for funding purposes. The ACS indicates the category into which the college places a course, i.e. remedial, technical, general education, etc. The ACS report is thus another indicator of self-definition of offerings.



A major point of difference between the Michigan study and the CSCC studies was in the way courses were counted and what study areas were included. The Michigan study focused on general education offerings so it did not count as general education courses which may have some liberal arts emphasis but were designed to meet the specific needs of a vocational or technical program. For example, courses such as "Technical Math", "Writing for Business", "Physiology for Nursing Majors", and the like were not counted as course offerings. These courses education circumscribed in their scope, subjects and areas to fit within specific curricular emphasis and thus were too limited to be general. These were designed to meet the needs of career program offerings and so counted in the study. Moreover, some of these offerings were designed to be able to nominally meet some general education requirement without having to actually teach general education courses which, as one vocational dean admitted "wasted time really needed to teach students in the program what they needed to get a license." Additionally, the CSCC studies included agriculture and engineering as liberal arts, and thus to some extent, general education areas. The Michigan study rejected these areas as specifically applied technical and vocational and thus not general education.

There may have been some rlurring of distinctions in determining whether a course offering was for community needs or physical education purpose. For example, colleges offered sections in



aerobics or swimming which could either fall into a physical education program or could have been provided as a community service. These classification questions did not have any effect on the quantification of the general education offerings. This was not a concern since these course offerings were not counted as general education in any case.

It needs to be noted that this study did not focus on an attempt to qualify the curricula of course offerings to determine the intellectual or academic value of the courses.

The overall results are shown in Table 1, "Sort by General Offerings." These results are further developed in more particularized sorts by "Remedial Offerings, (Table 3); Introductory/survey Course Offerings" (table 4), "Sequence/major Offerings (Table 5) and Table 6 compiling "Percentage of Category Offerings at Individual Colleges".

### The De Facto State of General Education in Michigan

The results of the study indicated that out of the 22,931, only 7,006 or 30.55% of all course sections offered were in non-remedial general education areas. (Table 2) Even with the 1,634 remedial sections (Table 3) offered added in as general education, the 8,640 sections equals 37.68% of all sections offered. The preponderance of the offerings were in career education. This category accounted



for 12,488 sections or 54.4% of all course sections offered. Remedial/developmental offerings comprised 7.16% while physical education equalled 3.75% and personal growth/community service offerings were equal to 4.11%.

AREA	# OF SECTIONS	% OF TOTAL
GENERAL EDUCATION CAREER EDUCATION	7,006 12,488	30.55% 54.46%
REMEDIAL EDUCATION PHYSICAL EDUCATION	1,634 861	7.16% 3.75%
COMMUNITY/PERSONAL	942	4.11%
TOTAL OFFERINGS	22,931	

(Table 1. Total Offerings and Percentages by Category)

Additionally, of the 7006 offerings in general education only 1162, or 16.6% could be classified as sequential follow-up courses that went beyond the introductory or survey course to prepare students with the intellectual or affective understanding and skills needed to build into a major sequential course of study leading to a major in an area for transfer purposes.

Of the courses offered in general education, the offerings in composition and math were by far the most common offerings both in every school as well as statewide. There were 1901 sections offered in math and 1770 sections in composition equalling 3,671 total



sections offered, or 42.8% of all general education offerings. (Table 4) This approximates the 1987 CSCC studies which found composition and mathematics providing 41% of offerings as the most common areas for sections and enrollments though the standings of the two areas were reversed with CSCC's percentages finding slightly more English offered than mathematics. The findings of either study should not be a surprise since composition and mathematics are courses in service to other studies.

The next highest number of sections offered was in political science which provided 492 sections. This does not correlate to the CSCC studies and may not be representative of a deliberate decision to provide the students a strong emphasis in political science. The high number of offerings may well have been a remnant of a law in Michigan which called for the teaching of courses in American government and/or civics in the community colleges. The law was . dropped but the offerings remained in the catalogues perhaps for college or community political reasons or for enrollment purposes. It may be that the sections remained in the offerings simply because they had been there in the past and no one had reviewed what current educational purpose or objective they served. Since the courses were filling with enrollment, and they were providing employment for instructors, why should administrators question them? Thus the number of political science offerings was possibly a remnant of the past, not from a conscious decision but out of



neglect to reconsider them.

It is of further interest to note that the remedial offerings contained some areas of study which one might not normally expect. The remedial sections (Table 3) in areas such as composition, mathematics, reading and English as a Second Language have been a consistent part of community college offerings, but remedial science has not been. The 22 sections attributed to foreign language account for sections in English as a Second Language. This number might be seen as low in comparison to that found by CSCC. The demographics in Michigan can partially account for the lower Michigan is a state which has been seeing out-migration rather then immigration as jobs and the economy in the state continue to decline. The remedial courses and sections offered in chemistry, biology and physics are indicators that entry-level ability and knowledge in these sciences are lacking when students are not even prepared to take introductory-level studies in the sciences. These courses may require additional attention and study to determine if instruction in remedial science for underprepared students is an avenue to success.

The CSCC findings that:

course offerings within disciplines also reveal that the Liberal Arts curriculum has a flat structure, characterized by an abundance of introductory survey courses and a relatively small number of more advanced courses at the sophomore level (p. 3)

also reflect the general education offerings in Michigan. There



were few true sequential offering requiring pre-requisites for entry. Though there were a number of skill subjects such as composition with sequenced course numbering with one course requiring the previously numbered course, these programs were almost invariably continuations of the preceding semester's or term's work. As such, they were not true pre-requisites. In some cases, one semester's work was divided in two parts thus although giving an appearance of second, they were not.

Three areas accounted for 55% of the sequential offerings political science, mathematics and psychology (Table 5). These
three disciplines also account for the second, third and fourth
most offered areas for introductory courses as well - composition
was the most offered. Composition and mathematics are two of the
very basic courses needed for most all students indifferent to
whether their goals are transfer or vocational-oriented.
Composition remained a basic skill course while the follow-on
offerings in mathematics were indeed sequential but were not
elevated very high. They were sequenced to bring students to a
level, for the most part, equal to that of a university freshman.

Twenty-four of the thirty-eight disciplines offered in the state had only seven or fewer advanced, or major concentration courses. Thirteen areas of study offered no follow-on courses at all. It would not be at all unfair to state that the community colleges



were providers of introductory instruction with little advanced study to help students progress toward a major area of study necessary to transfer. Thus, the general education offered to students in the twenty-nine community colleges was not just extremely low in comparison to career education offerings, it was also limited in the depth of knowledge toward a major concentration it could provide. It was a case of too little, spread too thinly.

No significant pattern could be found in the offerings according to size or location of the college. The lowest percentage of offerings in general education not including remedial courses was 19%. This was found in two colleges: one rural (Kirtland) and one urban (Lansing). Each also had a correspondingly high percentage of career education offerings - Kirtland, 56% and Lansing 65%. Neither had the highest percentage of career offerings however. Three colleges - Gogebic, Montcalm, and West Shore - all had 69% of the offerings in career education areas. These three schools provided 301 or less course offerings but size does not appear to be a factor since four other colleges of similar size in Michigan did not have corresponding high percentages. These are also colleges but rural versus urban location does not appear to affect the percentages. In fact, the next two schools with high percentages of career offerings were urban community coll and -Lansing and Mott. The urban location may appear to have influenced the percentage of career offerings in the colleges around the city of Detroit - Henry Ford (46%), Oakland (52%), Wayne County (54%),



Schoolcraft (55%), Macomb (57%) Highland Park (58%) though no clear pattern is obvious there either. For example, the highest and lowest percentages - Highland Park and Henry Ford Community Colleges - are both single campus schools but Highland Park meets the needs of a primarily African American population. Henry Ford has a quite smaller, though significant minority population. Wayne County, Macomb and Schoolcraft Community Colleges fall between the other two with Wayne meeting inner city student needs, with a primarily African American enrollment while Macomb and Schoolcraft are almost 95% white. Clearly, there are no clear parallels or contrasts to be provided to explain percentage distribution other than what was described by most every college as the goal of meeting what they perceived as community needs.

#### Conclusions

These results correlate with the 1987 CSCC study as well as the findings of the CCGI bringing additional credence to both studies while providing what could be a troubling image for community colleges. First, the critics of the collegial role and viability of the community college may be correct. If Michigan is an indicator, community colleges may well be primarily career education institutions. The twenty-nine colleges studied did emphasize career objectives for students through what they offered the students to study. Granted, quantifying is not equal to qualifying and it is worthy to note that some of the colleges are



actively reviewing their general education offerings. Schoolcraft College had just completed an intensive study of their general education goals for students and had just begun implementing general education requirements in 1989 for all curricula programs. Lansing Community College has been seriously debating and studying a general education core which culminated in an objective of establishing a common core for all degree students in its strategic plan in 1990.

Another concern which needs additional study is the possibility that the low number of sequential course offerings found in Michigan and the CSCC studies may be a factor which encourages community college students to transfer from the two year colleges as soon as feasible. If a student needs a set of courses, including those that develop from one another to build a course of study toward a major, and those courses are not available at the community college, this situation would mitigate against staying at the college. If a student needs a grouping of courses to enter into a baccalaureate major at the junior level, but the offerings required to do so are not available, why should the student stay? The lack of offerings may thus be a contributing factor to early transfer.

A similar concern indicated by the data is that community colleges are providing for breadth perhaps but not depth in many areas. This may not be a problem if that is what community colleges choose to



do. But, there is little indication that the colleges believe they are limiting study to survey and introductory study in general education and liberal arts areas. In fact, in a survey of administrative attitudes completed as part of this study, almost every administrator indicated that he or she felt that general education and transfer were the primary foci of the college. Thus, the concentration in career education may not have resulted from a conscious decision but from either an evolutionary drift, a desire to obtain larger funding from the state which does provide greater subsidy for vocational courses than for general education and the liberal arts, or more dishearteningly, from a lack of actual understanding on what the college is doing. It may well be that an appropriate role is to provide introductory general education while leaving major area concentration to the receiving institutions. But, this is a determinat which needs to follow a serious and active decision-making process and not as a de facto condition.

Boyer, E.L. College: The Undergraduate Experience in America. New York: Harper & Row. 1987. p.XII.

Breneman, D.W. and S.C. Nelson. <u>F\_nancing Community Colleges:</u>
<u>An Economic Perspective.</u> Washington, DC: The Brookings Institute,
1981.

Brint, S. and J. Karabel. <u>The Diverted Dream: The Community College and the Promise of Educational Opportunity in America. 1900-1985.</u>
New York: Oxford Press, 1989.

Brodie, M. J. "Faculty Research at Community Colleges Debated", Community College Week. April 13, 1992. p. 9.

Center for the Study of Community Colleges. "A Descriptive Analysis of the Community College Liberal Arts Curriculum", ERIC Digest



January, 1987.

Clowes, D.A. and B.H. Levin. "Community, Technical and Junior Colleges: Are They Leaving Higher Education?". <u>Journal of Higher Education</u>. 1989, 60 (3), 349-355.

Cohen, A.M. and F.B. Brawer. The Two-Year College Instructor Today. New York: Prager. 1987.

Cohen, A.M, and Brawer, F. <u>The Collegiate Function of the Community College</u>. San Francisco: Jossey-Bass. 1987.

Cohen, A. M., Brawer, F. B. and E. Bensimon. "Transfer Education in American Community Colleges". ERIC 255-250. Los Angeles, CA: Center for the Study of Community Colleges. 1985.

Cross, K. P. and E. Feideler. "Community College Missions: Priorities in the Mid-1980s", <u>Journal of Higher Education</u>. 1989, 50 (2), 209-216.

Dougherty, K. J. "Community Colleges and Baccalaureate Attainment", Journal of Higher Education. 1992, 63 (2), 188-214.

Gaff, J. "Coherence in the Community College Curriculum". talk given at the Fifth Annual Liberal Arts Network for Development Conference, E.Lansing, MI. February 1990.

Grubb, W.N. "The Decline of Community College Transfer Rates: Evidence from National Longitudinal Studies". <u>Journal of Higher Education</u>. 1991, 62 (2), 194-222.

Mayhew, L. <u>General Education: An Account and Appraisal</u>, New York; Harper & Brothers. 1960.

National Center for Academic Achievement and Transfer. <u>Setting the National Agenda: Academic Achievement and Transfer</u>. Washington, DC: American Council on Education, 1991.

Raisman, N.A. "Creating Philosopher/Bricklayers: Redefining General Education and the Liberal Arts", <u>AACJC Journal</u>, Dec/Jan, 1991-92. 16-21.

Otinger, C. A. ed. <u>Higher Education Today: Facts in Brief</u>. February 1992. Washington, DC: American Council on Education. 39.

Richardson, R.C., Fisk, E.C, and M.A. Okun. <u>Literacy and the Open-Door College</u>. San Francisco; Jossey-Bass. 1983. Zwerling, L. S. <u>Second Best: The Crisis of the Community College</u>. New York: McGraw Hill, 1976.

Seideman, E. <u>In the Words of the Faculty</u>. San Francisco: Jossey:Bass. 1985.



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	Reme dial		Sequence	total
Discipline				
			· ·	
mathematics	715	990	196	1901
composition	557	1156	57	1770
political science		440	252	692
psychology		494	186	60
speech	2	320	29	351
sociology		262	83	345
history		251	60	311
economics	•	294	3	297
biology	9	258	24	291
foreign languages	22	206	58	286
reading	259	12	6	277
chemistry -	62	172	31	265
literature		122	75	197
philosophy		114	27	141
interdisc. humanities		127	4	131
physics	8	73	24	105
geography		65	5	70
music apprec.		44	17	61
art history	•	54	4	59
anthropology		48	4	52
western civilization		46	1	47
interdisc soc science		43		43
physical science		39		39
sign language		24	7	31
gaology		29	2	31
religion		25	4	29
earth/space		28		28
film		26		26
environmental		23		23
minority/women studies		18	3	21
			L	#



	Reme dial	Intro	Sequence	total
Discipline				
natura/ science	-	21		21
critical thinking		6		6
zoology		5		5
botany		5		5
fine art		2		2
linguistics		1		1
archeology		1		1
oceanography				0
General education subtotals	1634	5844	1162	8640
Vocational education		12488		12488
Physical education		861		861
oommunity/ - personal		942		942
combined physical ed/personal		1803		1803
•				
TOTAL OFFERINGS	1634	21938	1162	22931



# Sort by Remedial Offerings (table 3)

	# of Sections
Discipline	
mathematics	715
composition	557
reading	259
chemistry	62
foreign lang	22
biology	9
physics	8
speech	2
TOTAL REMDIAL	1634



# Sort by Number of Introductory Sections Offered - high to low (Table 4)

Discipline	# of sections
	,
composition	1156
mathematics	990
psychology	494
political science	440
speech	320
economics	294
sociology	262
biology	258
history	251
foreign languages	206
chemistry	172
intrusp humanities	127
literature	122
philosophy	114
physics	73
geography	65
art history	54
anthropology	48
world civilization	46
music appreciation	44
interdiscp soc sci	43
physical science	39
geology	29
earth/space	28
film	26
relig	25
sign language	24



environment	23
natural science	21
minoritywWomenStds	18
reading	12
critical thinking	6
botany	5
zoology	5
fine art	2
archeology	1
linguistics	1
oceanography	0
Total General Education Introductory Offerings	5844
Non-General Ed Intro Offerings	
physical education	861
community/personal	942
career education	10400
	12488
Total Non-General Education Introductory	14291
Total Non-General Education	4



# Sort by Sequential Courses Offered (table 5)

Discipline	# of offerings
political sci	252
mathematics	196
psychology	186
sociology	83
literature	75
history	60
foreign lang	58
composition	57
chemistry	31
speech	29
philosophy	27
physics	24
biology	24
music apprec	17
sign language	7
reading	6
geography	5
art history	4
religion	4
interdisciplin humanities	4
anthropology	4
minority/women studies	3
economics	3
geology	2
world civiliz	1
subtotal	1162



Percentage of Offerings by College (Table 6)

	general	career	remedial	phys ed	com/prs
college					
Alpena	41%	44%	7%	3%	5%
Bay de Noc	27%	63%	8%	2%	1%
Delta	29%	57%	5%	3%	7%
Gien Oaks	23%	59%	9%	6%	34.
Gogebic	23%	69%	4%	4%	
Grand Rapids	31%	58%	3%	5%	2%
Henry Ford	36%	46%	9%	6%	3%
Highland Park	23%	58%	11%	4%	4%
Jackson	23%	51%	6%	10%	11%
Kalamazoo Valley	30%	53%	8%	7%	2%
Kellogg	28%	53%	11%	5%	3% .
Kirtland	19%	56%A	16%		9%
Lake Michigan	25%	50%	12%	4%	9%
Lansing	19%	65%	5%	2%	9%
Macomb	35%	57%	4%	4%	
Mid-Michigan	20%	50%	13%	14%	2%
Monroe	27%	62%	7%	3%	
Montcalm	23%	69%	4%	3%	2%
Mott	22%	66%	6%	3%	3%
Muskegon	42%	48%	6%	5%	
North Central	39%	54%	4%	1%	1%
North Western	24%	56%	7%	8%	5%
Oakland	35%	52%	8%	3%	2%
St.Clair	35%	57%	3%	2%	3%
School-craft	35%	55%	9%		2%
South Western	29%	54%	7%	7%	3%
Washtenaw	30%	55%	13%		2%
Wayne	35%	54%	9%		2%
West Shore	26%	69%	5%	50	1% learingh

ERIC Clearinghouse for 2 6 1992 Junior Colleges

