

**EXERCISE SCIENCE
& TECHNOLOGY**
Needs Assessment

Prepared by:

Office of Institutional Planning & Analysis

July, 1994

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Prepared by:

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July, 1994

EXECUTIVE SUMMARY

- This report will assist the College Curriculum Committee in their evaluation of the proposed options to be added to the Exercise Science and Technology Program: Medical Assisting, Gerontology and Business.
- OCC offers an Associate Degree, as well as a one year certificate program in Exercise Science and Technology. The program includes classroom and laboratory experiences in fitness testing and principles of conditioning with application under various conditions. Students can obtain certification in CPR and First Aid, and participate in exercise and cardiovascular rehabilitation internship programs. The program also offers the student an opportunity to prepare for the American College of Sports Medicine (ACSM) Certification Exam.
- Enrollment in the Exercise Science and Technology program increased steadily from its inception in 1983 to 1991. However, both enrollment and credit hours declined 22% in academic year 1992-93.
- The majority of employers contacted (56.7%) were *not hiring* entry level personnel with exercise science backgrounds at the time of survey (May 1994). Half of those hiring indicated employee turnover as their primary reason for hiring. Health Clubs were the largest group of employers hiring (46.2%), and Hospital/Retirement was the least likely to hire exercise science personnel at the time of the survey.
- Most employers required either a Bachelor's Degree (31%) or had no specific educational requirement (25%). Only 10% required an Associate Degree in Exercise Science.
- Over 90% of the employers rated the ability to work as a team member and the ability to use individual initiative as the most important personal qualities and academic skills. Additionally, employers placed a strong emphasis on the employee's organizational skills, teaching skills, good speaking skills, working with minimal supervision and working with people from diverse backgrounds.
- Employers were asked to give their opinions on the need for a Medical Assisting Option. Student survey results indicate that only 18% of Exercise Science majors were "very interested" in this option.
- When asked about the Gerontology Option, nearly 60% of the employers thought that it was a good idea. Survey results indicate that 40% of Exercise Science majors were "very interested" in this option.
- Nearly 60% of employers responded favorably to the Business Option. Student survey results indicate that one third of Exercise Science majors were "very interested" in the Business Option.
- Nearly 57% of employers indicated that one of the three options would be an advantage for prospective entry level personnel. Hospital/Retirement was the only group of employers indicating that it would not make a difference in their hiring practices. Employers who were currently hiring gave strong indication that an option would be an advantage.
- There are currently only two community colleges in the State of Michigan that have a program remotely related to OCC's Exercise Science program (Henry Ford Community College and Alpena Community College). However, neither of these colleges offer EKG or cardiovascular rehabilitation.

OAKLAND COMMUNITY COLLEGE
Exercise Science and Technology
Needs Assessment

INTRODUCTION

The purpose of this report is to review current industry needs and educational responses related to the field of exercise science. This report was initiated at the request of the College Curriculum Committee in order to assist their evaluation of the following proposed options to the Exercise Science and Technology Program: Medical Assisting, Gerontology and Business. The revision was introduced by Vicki Kloosterhouse, Coordinator of the Exercise Science and Technology Program (EXR) at the Highland Lakes campus. The report includes a comprehensive literature review, data supplied by the U.S. Department of Labor, Michigan Occupational Information System (MOIS), information compiled from telephone interviews with industry experts, and an examination of related programs in other higher education institutions. Phone surveys of employers in the exercise science industry and students who have recently enrolled in Exercise Science and Technology courses at OCC were conducted.

Description of Existing Program

Exercise Science and Technology

Oakland Community College offers an Associate Degree, as well as a one year certificate program in Exercise Science and Technology. The program includes classroom and laboratory experiences in fitness testing and principles of conditioning with application under various conditions: age, environment, sex, nutrition, disease, and disability. Certification in Cardiopulmonary Resuscitation (CPR) and First Aid is also obtained by all students majoring in EXR. There is an exercise internship as well as an extensive internship program in cardiac rehabilitation, where the students are assigned to an affiliated health facility for applied experience in a Phase II and Phase III cardiovascular rehabilitation program. The program offers students an opportunity to prepare for the American College of Sports Medicine (ACSM) Certification Exam. Upon graduation, students will be prepared to find entry level employment in various types of health centers where exercise is used therapeutically.

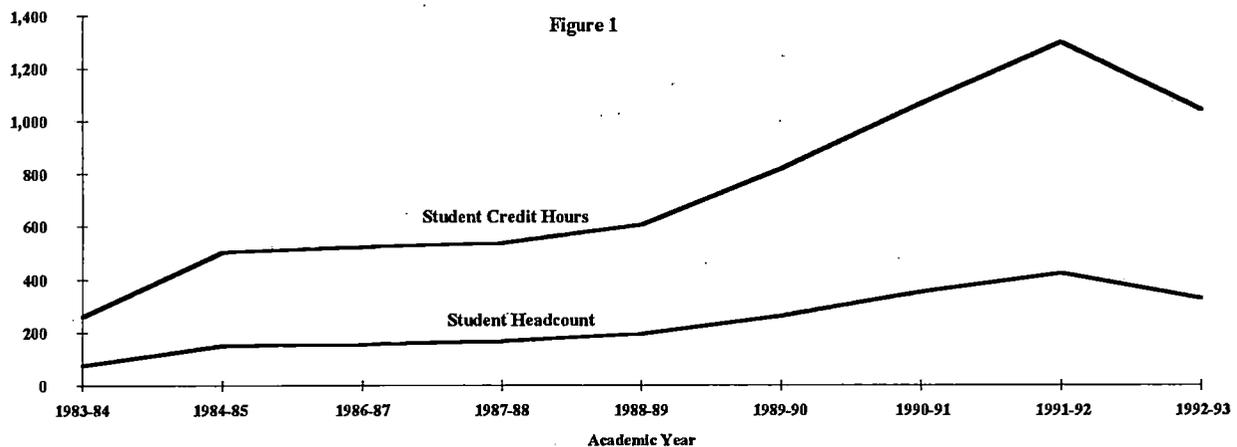
Enrollment in the EXR program increased steadily from its inception in 1983 to 1991. However, both enrollment and credit hours declined in academic year 1992-93. As illustrated in the 1994 Student and Financial Data Book prepared by the Office of Institutional Planning & Analysis (Appendix A), there has been a 327.3% increase in student headcount (duplicated), and a 299.2% increase in student credit hours in EXR courses over the last ten years (1983-1993). During academic year 1992-1993, 329 students (duplicated headcount) enrolled in EXR courses (see Table 1 and Figure 1), a 22.2% decrease from the previous year.

Graduation from the program has increased steadily from 1988 to 1993, with an average of five or six EXR graduates per academic year. Academic year 1990-91 had only one EXR graduate, however, there were ten graduates in 1992-93.

Table 1
Trends in Annual Student Headcount and Annual Student Credit Hours*
Exercise Science & Technology

Table 1 and Figure 1 depict total annual student enrollment (duplicated headcount) and total student credit hours for a ten year period. Data is based on the official count date for each EXR course which was offered throughout the academic year.

	Academic Year										Percent Change Ten Year
	1983-84	1984-85	**	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	
Student Headcount	77	150	**	155	168	194	262	352	423	329	327.3
Student Credit Hours	260.0	505.0	**	524.0	538.0	605.0	817.0	1,062.0	1,298.0	1,038.0	299.2



*Students represent annual duplicated headcount.
 ** Data for academic year 1985-86 is not available.

The EXR program is assisted by an Advisory Committee which includes 14 individuals from local businesses, schools and professional organizations, as well as OCC faculty and graduates of the program. Committee members were contacted and asked their opinions of the program and the proposed options. A list of Advisory Committee members appears in Appendix B.

The Proposed Options

The proposed options, Medical Assisting, Gerontology, and Business would incorporate specific existing courses at OCC. The proposition is to add enough courses from each of the three programs to give the student the opportunity to obtain an Extended Associate Degree in Exercise Science and Technology with a Specialized Option. The existing EXR program includes a total of 66 credits to graduate. With the additional options, the student would be expected to obtain 72 credits with the Gerontology and Business Options, and 74 credits with the Medical Assisting Option to graduate (see Appendix C).

The **Medical Assisting Option** would include the following courses: Medical Terminology (MED 110.3), Clinical Procedures I (MDA 114), Basic X-ray Techniques and Spirometry (MDA 120), Phlebotomy

(MDA 125), and Intermediate EKG and Arrhythmias (MDA 158). This option is designed to broaden students' skills so they can work in conjunction with the medical community.

The **Gerontology Option** would include the following courses: Introduction to Gerontology (GRN 251), Health and Aging (GRN 252), and Personal and Social Applications in Aging (GRN 256). This option would enable the graduate to service one of the fastest growing populations, and allow additional insight into the limitations and/or capabilities of older people, with special emphasis being placed on the needs of this age group.

The **Business Option** would include the following courses: Introduction to Business (BUS 101), Starting and Operating a Small Business (BUS 121), and Principles of Supervision (BUS 131) or Principles of Management (BUS 253). This option would be beneficial to those students seeking employment in a management position at a health club or wanting to become entrepreneurs.

Description of Occupations

There are several diverse occupations for someone with a background in exercise science. They range from working in fitness facilities to hospital settings. Following is a list of related occupations and job titles obtained from a variety of sources, including: an informal survey of EXR graduates conducted by the Program Coordinator, *OCC Graduate Follow-up Survey*, expert opinions, employer survey, and student survey:

Physical Therapy Assistant	Ergonomist - fitting the machine and the workplace to man
Occupational Therapy Assistant	Fitness/Health Club Exercise Consultant
Personal Trainer	Sports Journalism
Cardiac Rehabilitation Technician	Expert in
Management positions in health clubs	- Health Maintenance Organizations
Senior Citizen Program Coordinator	- Hospitals
Entrepreneur in fitness business	- Private Consulting
Corporate Contracts	Sports Medicine Specialist
Stress Testing Technician	Cardiac Rehabilitation Specialist
Chiropractor Assistant	Corporate/Employee Fitness Expert
YMCA Fitness Coordinator	Sports Coach
Geriatrics	Recreation Therapy
Human Resources Development	Exercise Leader
Medicine	

The Center for Educational Statistics defines "Exercise Sciences/Physiology and Movement Studies" educational program as:

An instructional program that describes the scientific study of the anatomy, physiology, biochemistry, and biophysics of human movement, and applications to exercise and therapeutic rehabilitation. Includes instruction in biomechanics, motor behavior, motor development and coordination, motor neurophysiology, performance research, rehabilitative therapies, the development of diagnostic and rehabilitative methods and equipment, and related analytical methods and procedures.

Information gathered from employers and experts in the field suggests that exercise science as an occupation will change at an increased pace in the near future. The changes will happen primarily due to increasing global awareness of fitness benefits, and the rapidly aging population demanding special attention. However, occupations in the exercise science and allied health fields are so vast and ambiguous that the nature of the changes are difficult to predict. Interviews with experts and employers in the industry suggest that employers are increasingly dependent on an employee's dedication and sensitivity to their clients rather than specific educational requirements. Experts also indicate that if a graduate transferred to a four-year college, as 60% of OCC Exercise Science majors do, then their career path would be more directed, opportunities would improve considerably, and salary levels would increase.

METHODOLOGY

Methods of Data Collection

Literature Search

In order to obtain background information about the exercise science field, medical assisting, gerontology, and business fields, a literature search was conducted and professional, industry, public and regulatory bodies were contacted. A complete list is provided in the *Bibliography* and *Supplemental References*.

Employer Survey

A telephone survey of 60 employers was conducted in May, 1994. Respondents represented several different areas, including: fitness facilities (privately owned and franchised), corporate facilities, fitness consultants, specialized training facilities, public recreation facilities, hospitals and medical facilities, and nursing homes (see Appendix D). Employers were asked a series of questions regarding hiring practices and potential employment opportunities (see Employer Survey, Appendix E). Additionally, respondents provided detailed information regarding desired qualifications and specific skill levels for entry level employees. Potential respondents were selected from a variety of sources, and included those employers who already have internship agreements with the OCC Exercise Science and Technology Program, Dun & Bradstreet's List, local telephone directories, as well as references from several employers contacted. Companies representing a variety of sizes and interests were included in order to provide a comprehensive view of employer needs in the local area.

Student Survey

One hundred and twenty (120) students who had taken at least one Exercise Science and Technology (EXL) course at OCC during the past academic year (Spring 1993 to Winter 1994) completed a telephone survey regarding their motivation for taking Exercise Science courses, satisfaction with the program and expectations for using experience/knowledge obtained from their exercise science coursework (see Appendix F). Sixty-one (61) of all respondents were EXR majors. Students majoring in EXR were asked their opinions on adding each of the three proposed options.

"Graduate Follow-up Survey"

Data from the College's ongoing *Graduate Follow-up Survey* was available for 19 students who received Associate Degrees from the OCC Exercise Science & Technology Program between 1989 and 1993. Both quantitative and qualitative analysis of this data was conducted. Verbatim comments obtained from these graduates appear in their entirety in Appendix G.

Comparative Analysis of Statewide Programs

A review of existing exercise science programs in higher education institutions in Michigan was conducted. Comparisons of enrollment and graduation information were made, and an examination of program content was conducted.

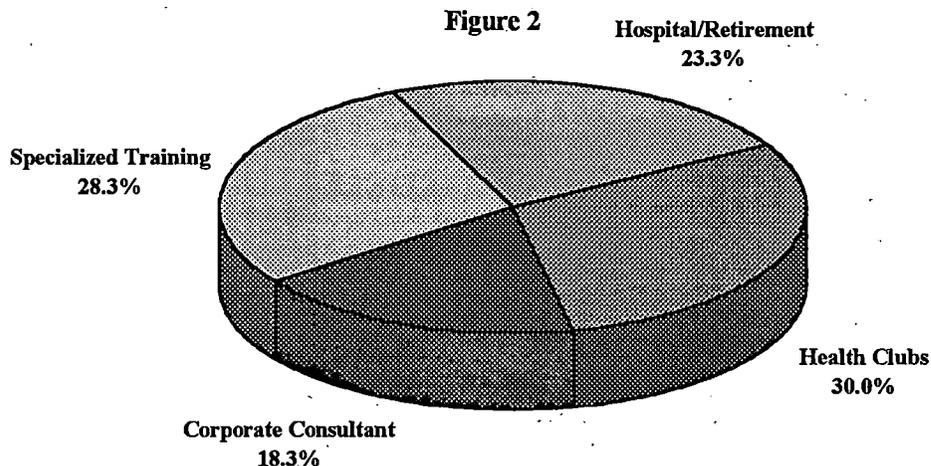
Methods of Data Analysis

Quantitative analysis of the employer and student survey data were conducted by means of frequency distributions, correlations, cross-tabs, and means analyses. Verbal responses were analyzed for content (Appendix H). The employer types were grouped into four separate categories, and the majority of analysis was completed using these categories (see Table 2 and Figure 2):

1. ***Health Clubs:*** Privately Owned Health Club, Franchised Health Club, Recreation Facilities
2. ***Corporate Consultant:*** Corporate Consultant, Corporate Facility, Personal Trainer
3. ***Specialized Training:*** Specialized Training, Other
4. ***Hospital/Retirement:*** Hospital or Other Medical Facility, Nursing Home

Table 2
Type of Employers Surveyed

<i>Employer Type</i>	<i>Number Responding</i>	<i>Percent of Total</i>
Health Clubs	18	30.0%
Corporate Consultant	11	18.3%
Specialized Training	17	28.3%
Hospital/Retirement	14	23.3%
All Employers	60	100.0%



Student data reflects their experiences, expectations, and opinions about the program and the addition of the options. Quantitative data was statistically analyzed and content analysis was conducted on the qualitative responses.

ANALYSIS

Exercise Science Industry Outlook

Industry experts indicate that the exercise science industry is a widespread phenomena, yet the term encompasses such broad career areas that the outlook is difficult to pinpoint. Central Michigan University's publication entitled "Careers: a Guide for Undecided Students" indicates that employment opportunities are expected to be good for the industry as new positions will be available due to continuing interest in leisure time pursuits as well as today's tremendous emphasis on physical fitness and good health. CMU's publication also states that many jobs are created out of popular demand "... without people, there would be no job[s]." Because of this, patience, perseverance, and personality are advantageous in this industry. Good physical and mental health are essential, along with enthusiasm, creativity and dedication. These are areas that many respondents in the employer survey felt to be lacking, noting that it is difficult to find dedicated and compassionate employees.

Potential employment opportunities for EXR graduates exist in many diverse places, including hospitals, clinics, industry, private clubs, health spas and YMCAs. The American College of Sports Medicine certification provides an employment advantage for job seekers as many employers require or prefer this certification. According to Ralph Laforge, owner of a major Cardiac Center in San Diego, California, and a professor at the University of San Diego, exercise is a booming industry and "managed care" is a hot topic, not only in schools, but also in the industry. According to Mr. Laforge, if the federal health care system replaces the existing system, there will be an abundance of employment opportunities for individuals in the field.

Employment Opportunities

The majority of employers contacted (56.7%) are not hiring entry level personnel with exercise science backgrounds at the present time (see Table 3 and Figure 3). Half (50%) of those currently hiring new employees indicate employee turnover as their primary reason for hiring, while 26.7% cited expansion of the company, and 26.9% gave other reasons. Among the "other" reasons for currently hiring were an interest in developing better quality employees, a demand for short-term (summer) employment, and the need for knowledgeable people in the field.

Of all employers surveyed, Health Clubs (46.2%) are the largest group of employers currently hiring exercise science personnel, while Hospital/Retirement shows the smallest percentage of employers currently hiring (7.7%). Within each category of employers surveyed, Health Clubs remain the most likely to hire, and Hospital/Retirement is still the least likely to hire exercise science personnel (see Table 3 and Figure 3).

The student survey conducted as part of this investigation showed that 61 (50.8%) of the 120 students surveyed are/were EXR majors. Of these students 32.8% majoring in the Exercise Science program are currently employed full-time. An additional 9.8% are self-employed, and 31.1% are employed part-time. Almost five percent (4.9%) of these students are unemployed and currently seeking employment, and 21.3% are unemployed, not seeking employment. Exercise Science majors are employed in the following areas; six students are working as personal trainers, five are fitness/aerobics instructors, two are exercise specialists, two are general fitness center workers, two own their own fitness centers, one is a coach, one works in medical records, and one is an exercise coordinator.

Of the employers contacted as a part of the employer survey, only 25% indicated having problems finding well-qualified entry level exercise science employees. Those who reported difficulties in locating qualified personnel trained in exercise science cited a variety of reasons, including both under-qualified and over-qualified applicants, and lack of commitment. When asked about the nature of their hiring difficulties, a substantial number of employers noted that hands-on experience was lacking. Specific employer responses include:

Lack of knowledge of EKG; lack of commitment.

People are either over-educated (qualified), or under-qualified; the over-educated do not want to accept the money that we are able to pay for entry level positions.

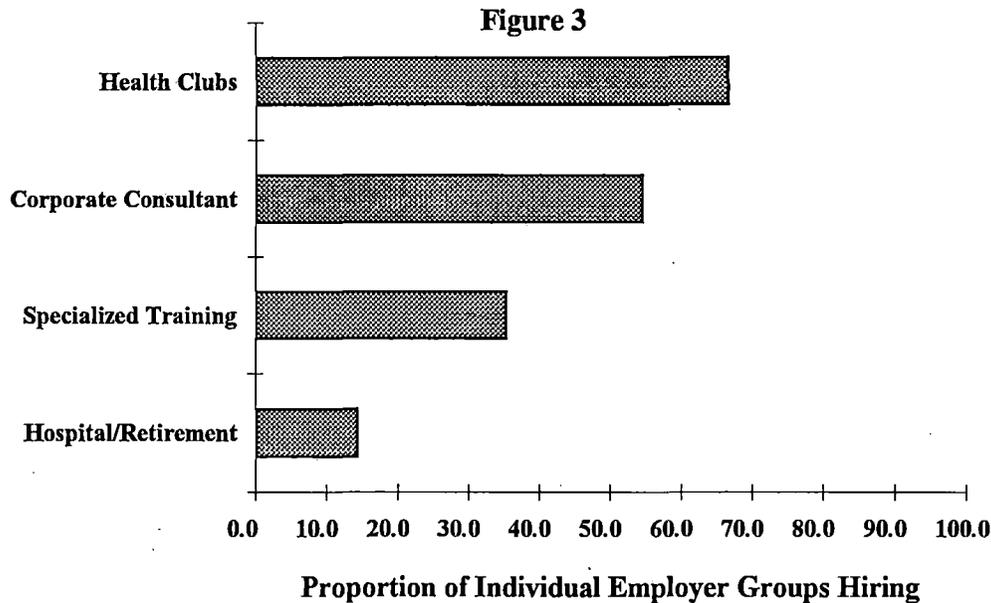
Do not have trouble finding exercise trained people - do have trouble finding people with experience.

Many employees do not have the hands-on training with equipment, etc.; they have the educational requirements, but lack real hands-on club experience.

Have classroom knowledge, but can't relate knowledge to the person they're training.

Table 3
Proportion of Individual Employer Groups Hiring

<i>Employer Type</i>	Hiring		Not Hiring	
	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>
Health Clubs	12	66.7	6	33.3
Corporate Consultant	6	54.5	5	45.5
Specialized Training	6	35.3	11	64.7
Hospital/Retirement	2	14.3	12	85.7

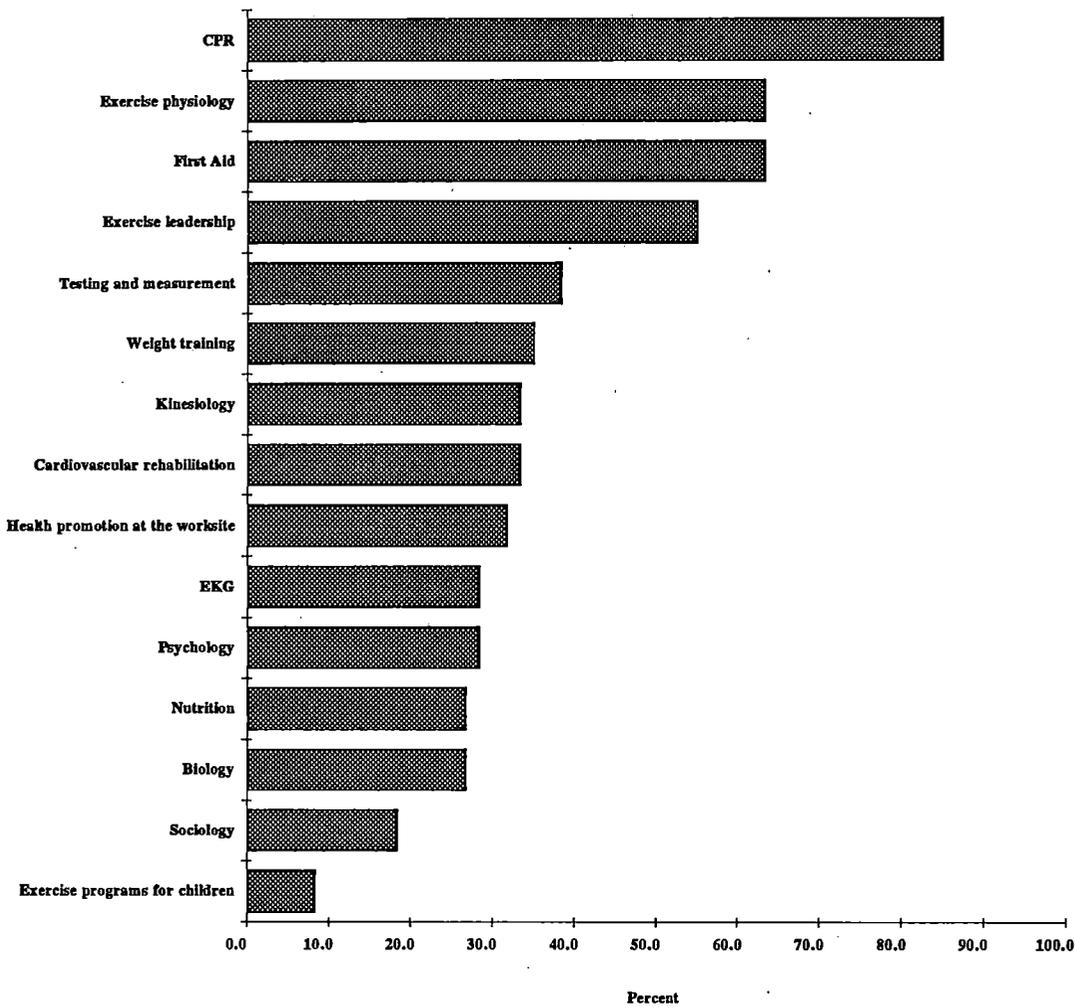


Employers were asked to rate the importance of job-specific skills for their entry level employees. Table 4 and Figure 4 display percentage of all employers who indicated individual skills as "very important." CPR, exercise physiology, exercise leadership, and First Aid are skills employers see as very important. Sociology and exercise programs for children are shown to be less important. This finding suggests that learning these skills will increase the marketability of students in the industry. Furthermore, EKG certification is rated relatively by the employers, however it would be offered in the Medical Assisting Option

Table 4
Technical/Academic Skills Viewed
as "Very Important" for Entry-Level Employees

<i>Characteristic</i>	<i>Number</i>	<i>Percent</i>
CPR	51	85.0
Exercise physiology	38	63.3
First Aid	38	63.3
Exercise leadership	33	55.0
Testing and measurement	23	38.3
Weight training	21	35.0
Kinesiology	20	33.3
Cardiovascular rehabilitation	20	33.3
Health promotion at the worksite	19	31.7
EKG	17	28.3
Psychology	17	28.3
Nutrition	16	26.7
Biology	16	26.7
Sociology	11	18.3
Exercise programs for children	5	8.3

Figure 4



Respondents participating in the employer survey also rated a list of personal qualities and academic skills with regard to perceived importance for entry level employees. Table 5 and Figure 5 show the number of employers who listed those skills as "very important." Respondents surveyed rated basic business skills (25%) and writing skills (45%) as the least important skills for entry level exercise science personnel. Employers place the highest value (over 90%) on the employee's ability to work as a team member and their ability to use individual initiative. A high value (80%-90%) was also placed on the employee's organizational skills, teaching skills, good speaking skills, working with minimal supervision and working with people from diverse backgrounds. Respondent comments include:

Communicate well with their classes.

Being able to motivate others.

Ability to get along with people.

Enthusiasm about what one is trying to get across to people; motivate people.

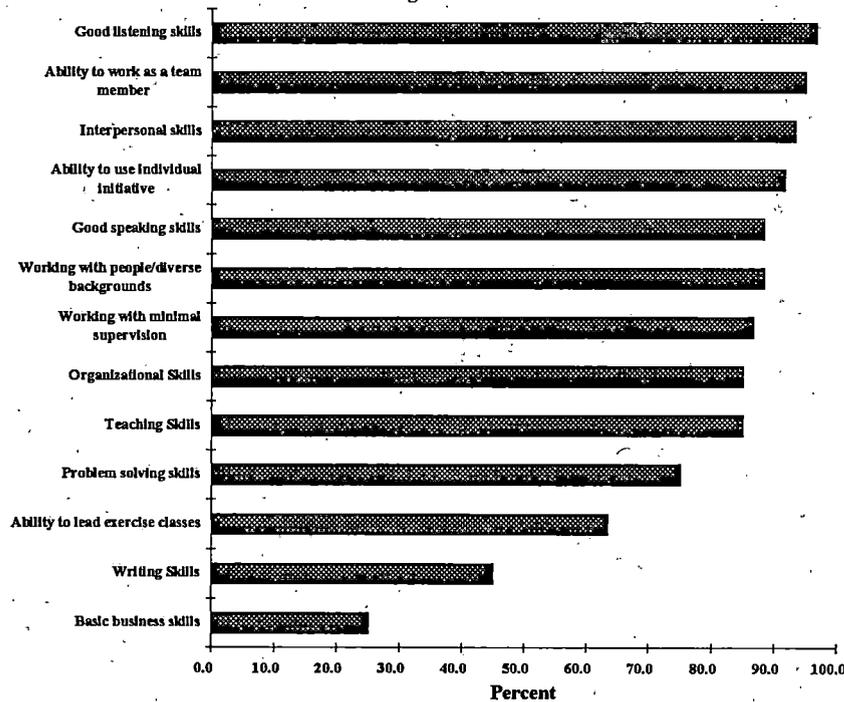
Ability to empathize; patience.

Although the respondents rated the above skills very highly, they are also concerned with the employee's commitment and ability to show compassion to their clients.

Table 5
Personal/General Education Characteristics Viewed
as "Very Important" for Entry-Level Employees

<i>Characteristic</i>	<i>Number</i>	<i>Percent</i>
Good listening skills	58	96.7
Ability to work as a team member	57	95.0
Interpersonal skills	56	93.3
Ability to use individual initiative	55	91.7
Good speaking skills	53	88.3
Working with people/diverse backgrounds	53	88.3
Working with minimal supervision	52	86.7
Organizational Skills	51	85.0
Teaching Skills	51	85.0
Problem solving skills	45	75.0
Ability to lead exercise classes	38	63.3
Writing Skills	27	45.0
Basic business skills	15	25.0

Figure 5



Forty-six percent of respondents in the employer survey claim that they are interested in assisting OCC in the design and development of the EXR Program, while an additional 27% said that they "may" like to assist in the EXR Program.

The Proposed Options

Detailed analysis was conducted on employer and student responses to questions with regard to demand for the three options under consideration. Experts in the industry were also contacted and asked their opinions regarding the options.

Medical Assisting Option

The employer survey questioned if the respondent thought they would consider the Medical Assisting Option to be important. The respondents were given the opportunity to answer "yes", "no", or "not sure". Overall, survey results indicate that only 33.3% of employers are in favor of this option. Of those industries previously categorized, Health Clubs were the least interested (27.8%) in this option. However, 50% of respondents in the Hospital/Retirement industry are in favor of this option (see Table 6 and Figure 6).

Students majoring in EXR were asked to give their opinions with regard to the options, by responding "very interested", "somewhat interested", or "not interested." Survey results indicate that only 18% of EXR majors are "very interested" in this option. Nearly 43% are "somewhat interested" and 39% are "not interested" in the Medical Assisting Option. Of those students who indicated an interest in the Medical Assisting Option, their main reasons are as follows:

I want to experiment with this area as a career option.

It would be great to be certified in EKG. It opens up more doors in the job market.

I would be interested in using EKG skills in a job in cardiac rehabilitation.

It would help a lot to be EKG certified. Also, it would give me a chance to go into a different field if I needed to.

Overall, students who responded negatively toward the Medical Assisting Option noted that it "is not at all related to my job/field of study." One student commented; "Does not apply to my business. In the clubs I've worked at, I've never had to run an EKG on anyone. I don't feel that EKG certification is necessary."

Employers who expressed interest in the option, also believe that students should learn pharmacology and Medicare/Medicaid reimbursement trends.

Overall, experts in the industry indicate that the Medical Assisting Option is not necessary for employment in the field of exercise science. A few experts said that the option is "not justifiable," unless it is taught "how it relates to exercise." Other experts responded that they did not know enough about medical assisting to give an answer, or it simply "does not matter." Some said that it would not hurt, but it might not help.

Gerontology Option

The employer survey results for the Gerontology Option show that it is accepted more positively than the Medical Assisting Option. Overall, 59.3% of the employers are in favor of this option, and 39% are not in favor. When divided into the aforementioned categories, Specialized Training (70.6%), and

Hospital/Retirement (78.6%) indicated that the Gerontology Option is a good idea. Conversely, Health Clubs (44.4%) and Corporate Consultant (40%) responded negatively toward the option.

Student survey results indicate that 40% of EXR majors are "very interested" in the Gerontology Option. Nearly 27% are "somewhat interested" and one third (33.3%) are "not interested" in this option. Of those students who indicate an interest in this option, their main reasons/comments were as follows:

I feel there needs to be more emphasis on gerontology. I believe in the older people. I feel it will be even more important in the future.

I respect the older generation and want to meet their needs.

The population is aging in general. Many clients are 50 and over and have arthritis/bursitis, etc.

I already work in community centers with older people. I think you should know about the needs of all kinds of people.

Students who are "not interested" in the Gerontology Option could only offer two reasons: they are simply not interested or that it is not their field of study.

Employers who expressed an interest in this option thought that students should also be taught insurance issues, therapeutic recreation, Alzheimer's disease knowledge, and exercise for healthy seniors. One employer indicated that the "psychology of a younger person working with older clientele; staff population is always younger than patients" should be considered.

Experts in the field responded somewhat favorably to the Gerontology Option. Some experts indicate that this option will do the greatest service in the exercise industry. According to the Fitness Director of the YMCA in Ann Arbor, they attract a wide variety of individuals, including the aging population. One aerobics studio indicated that they teach senior citizen classes using modified exercises. Another expert suggested that private training might be improved with such an option, and one expert said "yes, it is the field of the future." The general response captures the obvious fact that this generation is getting older due to better health care and the "graying of America", and younger individuals will have to cater to their needs, in all career aspects.

David Penton, "Caring For An Aging Society: Issues and Strategies for Gerontology Education", states that the potential for an individual with a degree in gerontology is much broader, but it is also less well defined. Penton notes that those with a gerontology degree may be competing for the same job with individuals who have more "traditional credentials", thus, suggesting that certificates or minors in gerontology may be more acceptable in the job market. Penton also indicates that hesitancy to accept individuals with degrees in gerontology is due to lack of experience with employees who have any type of credential in aging.

Business Option

Employer survey results were the most positive for the Business Option. Overall, employers responded similarly to the Gerontology Option, with 59.3% in favor of the option, and 37.3% not in favor of the option. According to the categories divided earlier, Corporate Consultants (80%), Specialized Training (70.6%), and Hospital/Retirement (64.3%) all responded positively. Health Clubs remained the least interested (33.3%) in this option.

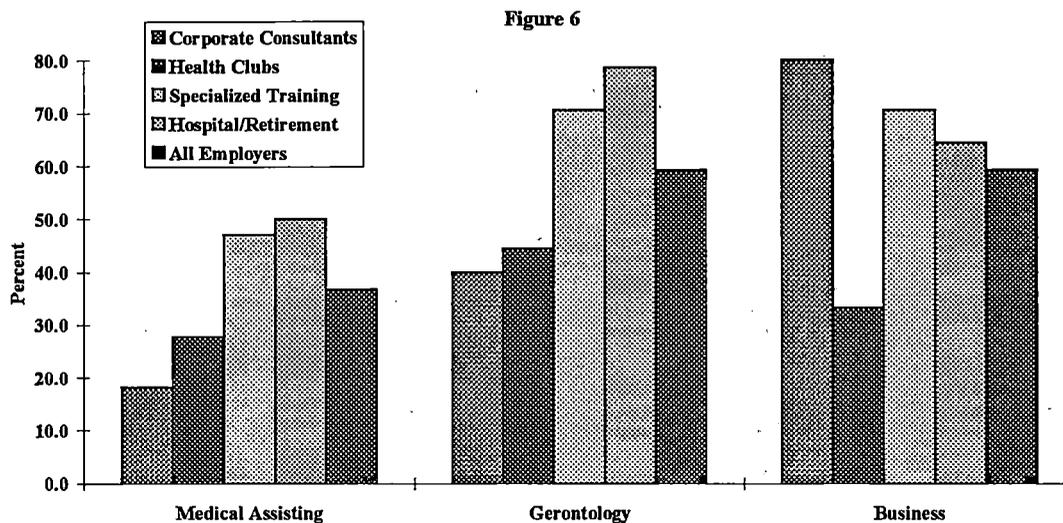
Student survey results indicate that 33.9% of EXR majors are "very interested" in the Business Option. Thirty-nine percent are "somewhat interested" and 27.1% are "not interested" in this option. Those who are either "somewhat interested" or "very interested" in this option, cite their number one reason as wanting to own their own business. Other reasons include, "this is where the money is", and "I would be interested in learning management skills (to run a health center)." Those students who are not interested in the Business Option mentioned two main reasons: they already have the knowledge or it would be too stressful.

Employers who indicated an interest in the Business Option think that the students should also be learning: insurance (including Medicare and Medicaid), marketing, budgeting (including how to bill for services), economics, and ethics. However, employer support for the business option contradicts earlier findings where the employers rated basic business skills as one of the least important skills for entry level employees.

Experts are in favor of this option if the individual is interested in a career in management, director positions, or entrepreneurship. At least two experts also indicated, as in the Medical Assisting Option, that the classes "should be specific to health and exercise." Ralph Laforge, suggested "how to incorporate fitness and health promotion into 'managed care', and health reform are 'hot topics' at the present time, and a Business Option should be geared toward those programs."

Table 6
Percent of Employers Responding Positively to the Proposed Options

	<i>Medical Assisting</i>	<i>Gerontology</i>	<i>Business</i>
Corporate Consultants	18.2	40.0	80.0
Health Clubs	27.8	44.4	33.3
Specialized Training	47.1	70.6	70.6
Hospital/Retirement	50.0	78.6	64.3
All Employers	36.7	59.3	59.3



Students were asked if the extra credit hours would change their mind about adding the options; the majority (77%) said that it would not. Only two students majoring in EXR would reconsider their answer when choosing the options after learning of additional credit requirements. Some additional comments are:

No, because if you want something bad enough, the additional time will not matter.

Yes, there are some classes such as speech and recreational leadership that could be replaced by those mentioned before.

Maybe, a student should be able to choose (the courses).

No, but get rid of the offering that are useless and replace them with these new courses.

No, if I was interested, it wouldn't matter.

Following is a list of options that students majoring in EXR consider to be important, other than the proposed options: Nutrition/Dietician, Kinesiology (Anatomy and Physiology), Physical Therapy Assistant

Program, Youth and Adolescence, Children Specialty, and Sports Psychology. Some students also feel that they should be able to choose which classes they may take in each proposed option program.

All employers surveyed were asked "if a prospective employee came to you holding an Associate Degree in Exercise Science and Technology with an Option, would that person have an advantage over someone who holds only the base degree in exercise science?" Overall, employers responded that an option would be an advantage (56.7%). Hospital/Retirement is the only group of employers indicating that it would not make a difference in their hiring practices (42.9%).

All employers surveyed were asked if they would support, a paid or unpaid, internship for an OCC student. Only 27.8% of employers would support a paid internship, while 52.8% would support an unpaid internship. Approximately 20% of respondents in the employer survey remained uncertain about either a paid or unpaid internship. This appeared to be because the respondent was not the person who would be involved in the hiring of interns.

When analyzing the responses toward the internships as compared to the responses to the options, it appears that those employers favoring each option are only willing to consider unpaid internships: Medical Assisting (61.9%), Gerontology (66.7%), Business (59.4%).

Employment Outlook

According to the respondents in the employer survey, only 43.3% of employers are currently hiring personnel in the exercise science field. When divided into the four categories, Health Clubs are most likely to be hiring, while, Hospital/Retirement are the least likely to be currently hiring exercise science personnel. Furthermore, most employers have part-time staff, yet Health Clubs and Corporate Consultants have as many full-time exercise personnel as they do part-time personnel. Hospital/Retirement and Specialized Training currently employ twice as many part-time exercise personnel as they do full-time staff.

There are many different occupations within all segments the exercise science industry, therefore, there are no concrete statistics in the Michigan Occupational Information System (MOIS). As the exercise science field is so ambiguous, there were several different reactions from experts in the field with regard to the employment outlook, as well as plenty of diverse literature written on the subject. Caroline Williams, Director of Programming at the Cooper Institute, claims that opportunities will remain stable over the next few years, and that health club membership will diminish and health programs will increase. Williams also sees a future need for exercise science graduates to be innovative to find their particular niche in the job market because the industry is so ill-defined. Due to this, Williams predicts that Personal Training will be a growing field.

When experts and employers were questioned about their "expert opinions" on the options, the results came out considerably consistent; business would always be helpful, gerontology is becoming more important as our population continues to age, and there is either not enough known about medical assisting to give an answer, or it is not relevant to the exercise science industry. This consistency is confirmed in the employer survey results (see Table 6 and Figure 6).

Some experts believe there is adequate indication that the health and fitness industry is a fad and will fade-out just as quickly as it came, however, others indicate that it is a continuously growing field. Comments from experts in the field include:

Not a whole lot of jobs in health and fitness.

Do not necessarily need a degree, or a degree in the exercise field.

Gerontology is the field of the future.

People just don't understand exercise science very well (therefore, it may impede job opportunities).

It is generally known that practical experience is typically an advantage in any industry. With the program's cardiac rehabilitation and exercise internships students will have an advantage over other students without having practical experience in internship programs. Experts and employers in the industry have indicated that *any* degree will be helpful, but not necessarily one in exercise science. One health club employer suggested that they hire individuals who have been a member with the club and have taken a real interest in exercise and their club, overlooking a degree altogether.

Retraining Opportunities

Employers Survey findings point out that all employers, except Health Clubs (16.7%), indicate that they assist their employees by providing tuition assistance. Overall, 50% of employers offer tuition assistance. In-house training is provided for by almost all employers surveyed (88.3%).

When queried about the preferences or requirements of certain certification for entry level personnel, the employers responded as follows:

		<u>Percent</u>	
	<i>Require</i>	<i>Prefer</i>	<i>No</i>
American College of Sports Medicine	10.2	35.6	54.2
American Council on Exercise	11.9	20.3	67.8
CPR	72.9	1.7	25.4
First Aid Emergency Procedures	50.8	15.3	33.9

Most employers indicated that they provide training for continuation of certification. Those employers who do not require or prefer CPR or First Aid, indicate that they provide re-certification training themselves. Several employers also mentioned the need for employees to be certified in Advanced Cardiac Life Support (ACLS).

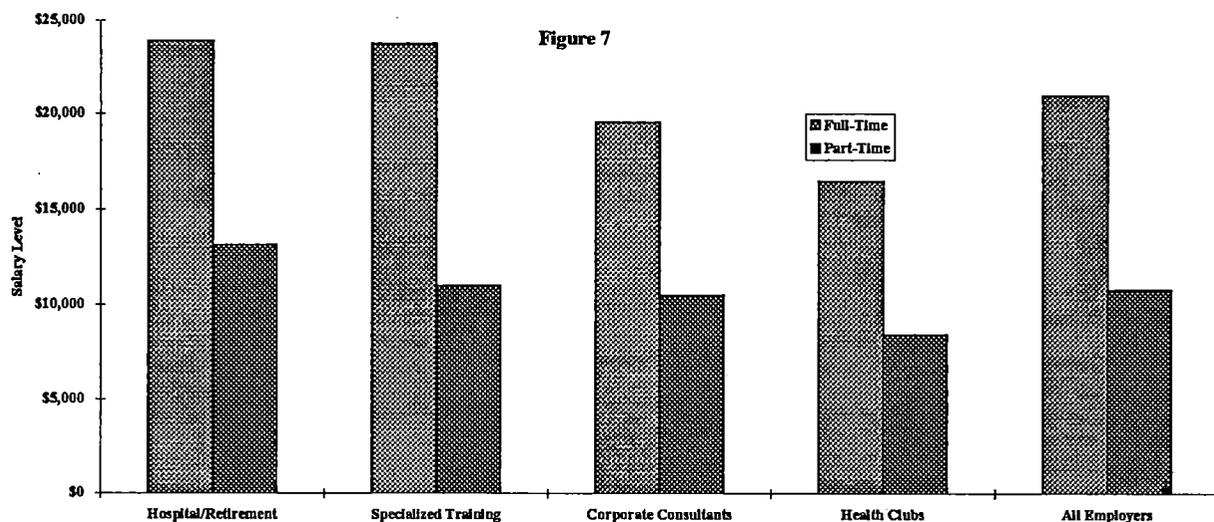
Employee Benefits

Wage and Salary

The employer survey results indicate that remuneration for full-time exercise science personnel ranges from \$11,400 to \$32,000 per year for a qualified and experienced person. Salary information was further analyzed by the four categories mentioned earlier (see Table 7 and Figure 7). The average full-time salary for those employed in the Health Club category is \$16,070 per year; Corporate Consultants \$20,690; Specialized Training \$21,320; and Hospital/Retirement \$20,000 per year. Employer survey results also indicate that part-time wages range from \$5,720 to \$15,600 per year for an entry level exercise science employee working 20 hours or less per week (exact hours per week are not available). Categorically, average part-time pay rates per year are as follows: Health Clubs \$8,720; Corporate Consultants \$10,270; Specialized Training \$10,190; and Hospital/Retirement \$12,000. As is true in many fields/, additional years of experience and specialized training increases one's earnings significantly. The average salaries excluded five of the top wages which employers indicated could be obtained only by someone with a bachelor's degree.

Table 7
 Average Salaries for Entry-Level Employees

	<u>Full-Time</u>	<u>Part-Time</u>
Hospital/Retirement	\$23,882	\$13,152
Specialized Training	\$23,704	\$10,963
Corporate Consultants	\$19,495	\$10,471
Health Clubs	\$16,398	\$8,401
All Employers	\$20,870	\$10,747



Advancement Opportunities

Respondents in the employer survey were asked about the advancement opportunities available in their company for entry level personnel trained in exercise science. The following is a list of the most common jobs attainable for advancement:

Director/Supervisor/Assistant Manager/Manager

Personal trainer

None without further education

Coordinator

Owning a business

Respondents were then asked if those advancement opportunities might change with one of the three proposed options. Employers in Hospital/Retirement (35.7%), Health Clubs (29.4%), and Corporate Consultants (9.1%) all claimed that the advancement opportunities would not change with an additional option. Specialized Training (56.3%) was the only category claiming that an option would indeed make a difference to advancement opportunities.

Narrative comments from respondents in the employer survey were mixed with regard to the change in advancement opportunities with an added option:

Yes. Could be promoted faster, but really the emphasis is on employee's job performance.

Higher initial placement.

Shows that they're serious about job and open to more duties and areas.

Less training.

An employee with additional knowledge is always looked on more favorably.

No. Hard pressed to hire someone with only an associate degree.

Being able to run a business was more important than having just the degree; meaning a piece of paper doesn't necessarily make you a good manager.

Hire only four year degree.

Even with the other concentrations, we only have limited jobs available; it's really a personal choice if someone wants to improve.

Not sure. A bachelor's would rate higher than a concentration.

Many employers indicated that advancement opportunities would depend on each individual person. By the time the employee is ready for advancement opportunities, the option will be obsolete, and emphasis will remain on the individuals' job performance.

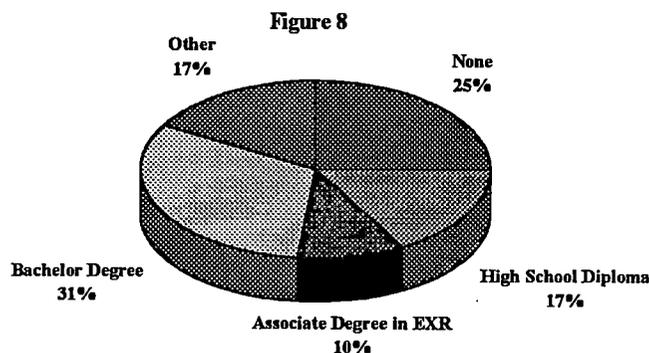
Occupation

Level of Training Needed

Respondents in the employer survey were asked to indicate the minimum level of education, experience or other credentials required for entry level employment (Table 8 and Figure 8). Data reveal that most employers require either a Bachelor's Degree (31%) or have no specific educational requirement (25%). Only 10% of employers indicate that they require an Associate Degree in Exercise Science. Often, those indicating "other" educational requirement (17%), referred to an Associate Degree in Physical Therapy Aide/Assistant. Sometimes employers require personnel to be additionally certified, but often provide the training themselves. On several occasions, employers *only* require certification, often Cardiopulmonary Resuscitation (CPR), First Aid and the American College of Sports Medicine (ACSM). Of those employers who are currently hiring, 66.7% in the Health Club category indicate that there is no specific educational requirement for their entry level exercise science employees, while *only* the Health Clubs (8.3%) and Specialized Training (33.3%) indicate the need for an Associate Degree in Exercise Science.

Table 8

Educational Requirements of Entry-Level Positions		
<i>Education</i>	<i>Number</i>	<i>Percent</i>
None	15	25.0
High School Diploma	10	16.7
Associate Degree in EXR	6	10.0
Bachelor Degree	19	31.7
Other	10	16.7
Total	60	100.0



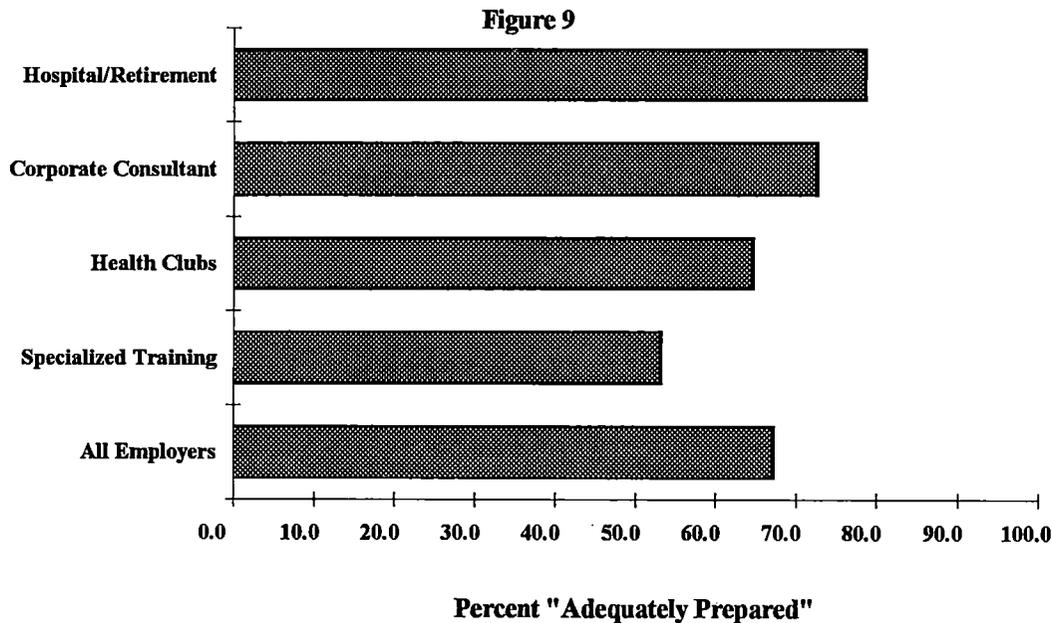
Adequacy of Currently Available Training

The results of the employer survey indicate that the level of preparation of entry level employees is adequate in all four categories (see Table 9 and Figure 9). Hospital/Retirement facilities are most pleased

with their entry level employees' preparation (78.6%), yet they also typically require a bachelor's degree for their entry level personnel.

Table 9
Perceived Preparation Levels of Entry-Level Employees

<i>Employer Type</i>	<i>Adequately Prepared</i>	<i>Sometimes Prepared</i>	<i>Not Prepared</i>
Hospital/Retirement	78.6	21.4	0.0
Corporate Consultant	72.7	18.2	9.1
Health Clubs	64.7	29.4	5.9
Specialized Training	53.3	33.3	13.3
All Employers	67.3	25.6	7.1



Several of the employers who noted skill deficits in their entry level employees cited "hands-on" training/experience as lacking. Other employers expressed concern about the applicants' abilities to apply their classroom knowledge to actual situations.

When asked to relate their current job to their coursework, 51.3% of students majoring in EXR responded with at least a five on a ten-point scale. Twenty-one percent of those students revealed that their job is *highly related* to their coursework. From all students surveyed, 23.3% indicate that their coursework has been helpful to them at their current place of employment. Exercise Science majors expressed positive feelings about the instruction available in the Program (Table 10 and Figure 10). Specifically, students indicate that they are happy with the instruction (34.4%), the classes (16.4%), and the nutrition courses (11.5%) offered in the EXR program. Student narratives appear in their entirety in the Appendix I.

Comments from students majoring in EXR regarding various program elements suggest that students are delighted with the motivation of the instructors and are pleased that the coursework is relevant to their career path:

I'm learning more about nutrition and learning to understand better. I was very impressed with my Exercise Physiology instructor, ... She is excellent.

I basically love health and I am very interested in the subject. It was very enjoyable going to class. The best thing about the program was that it is related to my field.

All my classes were good. There was a lot of interaction with other students during class. I liked this group type of teaching style.

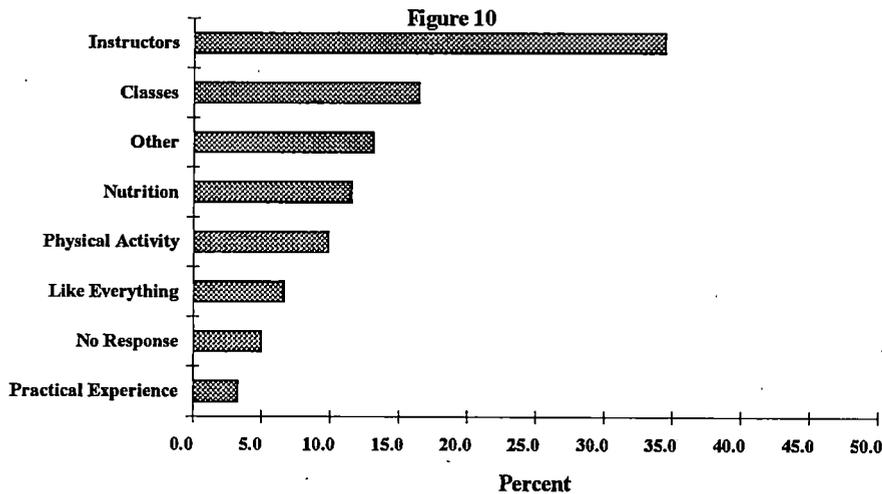
I like the instructors' attitudes. They are very approachable. Much material was covered.

I used to go to Lawrence Tech and OCC is much more relaxing.

I liked the atmosphere of my classes. I met some terrific friends who are also health enthusiasts.

Table 10
Elements Students Majoring in EXR Most Like about
the Exercise Science & Technology Program

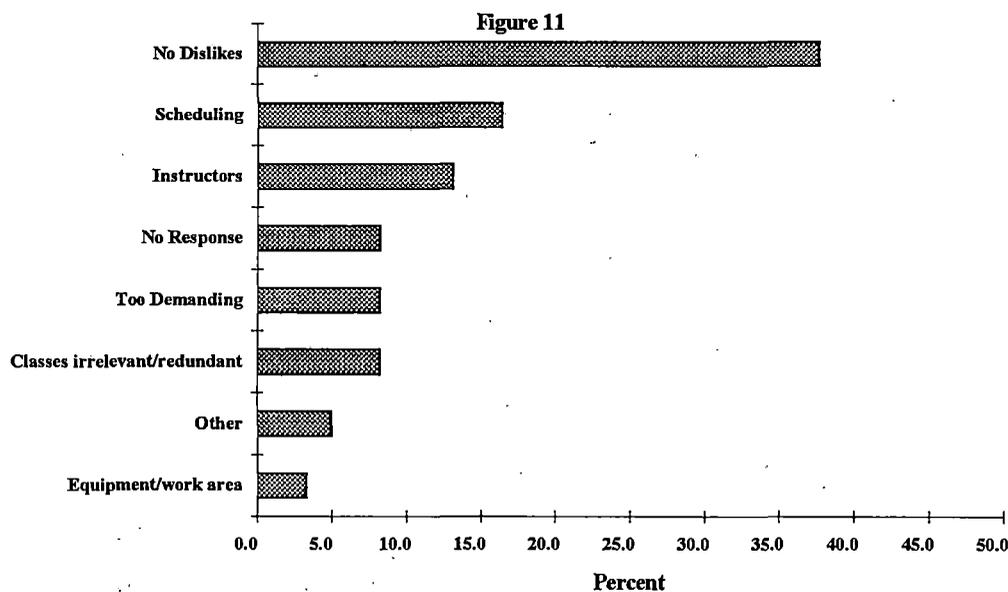
	<i>Number</i>	<i>Percent</i>
Instructors	21	34.4
Classes	10	16.4
Other	8	13.1
Nutrition	7	11.5
Physical Activity	6	9.8
Like Everything	4	6.6
No Response	3	4.9
Practical Experience	2	3.3
Total	61	100.0



When students majoring in EXR were asked to indicate what they most disliked about the program, a majority of them indicated "no dislikes" (37.7%). Of those who were dissatisfied with one or more of the program elements, they noted class "scheduling" (16.4%), "instructors" (13.1%), "classes irrelevant/redundant" (8.2%), and "too demanding" (8.2%) (see Table 11 and Figure 11).

Table 11
Elements Students Majoring in EXR Most Dislike about
the Exercise Science & Technology Program

	<i>Number</i>	<i>Percent</i>
No Dislikes	23	37.7
Scheduling	10	16.4
Instructors	8	13.1
Classes irrelevant/redundant	5	8.2
Too Demanding	5	8.2
No Response	5	8.2
Other	3	4.9
Equipment/work area	2	3.3
Total	61	100.0



Narrative comments underscore student concerns regarding class scheduling and the quality of instruction:

Some classes like Recreational Leadership are not relevant to most careers unless you work at a park or school.

... (one of my instructors teaches) with a 1940s attitude, not a 1990s attitude. Also, I don't really see any career openings for someone who graduates out of this program.

They do not offer enough classes in a term. Sometimes a class is only offered once in a year. I am now behind because the class I need is never available during the semester I can take it in.

There is one major pet peeve I have. For three semesters now the Exercise Leadership course has been canceled every time. It is one of my pre-requisite courses. Now I am a year behind to graduate. The dean does not seem to care either.

Some instructors were not well qualified. Only a couple were unsatisfactory but they were teaching the major requirement courses. I feel like I missed out on learning more because of the lack of qualifications these teachers had.

I do not see enough courses offered in the schedule for spring and summer.

Students were also asked whether they prefer that "all," "some," or "none" of the EXL courses be offered in block or split sessions. Students majoring in EXR prefer "some" classes to be offered in split sessions (54.2%), while only 11.9% chose "all" sessions to be offered in split sessions. The remaining 33.9% of EXR majors feel that no classes should be offered in split sessions. Almost all EXR majors prefer either "some" (47.5%) or "all" (40.7%) of the classes be offered in block sessions. Very few students (11.9%) requested that no classes be offered in block sessions. Students were also asked to comment on overall course scheduling. Students majoring in EXR have key concerns with a greater frequency of class offerings, more day and evening classes and more class offerings in the spring and summer sessions. Narrative comments support their concerns:

Courses should be offered in the spring and summer and the block sessions are great.

The College should offer more classes during spring semester. This spring all I see offered is aerobics. Also I would prefer less cancelling of classes. And, is it possible to have classes offered at other campuses like Orchard Ridge?

There should be more evening classes, more Saturday classes. Get more instructors to teach more classes.

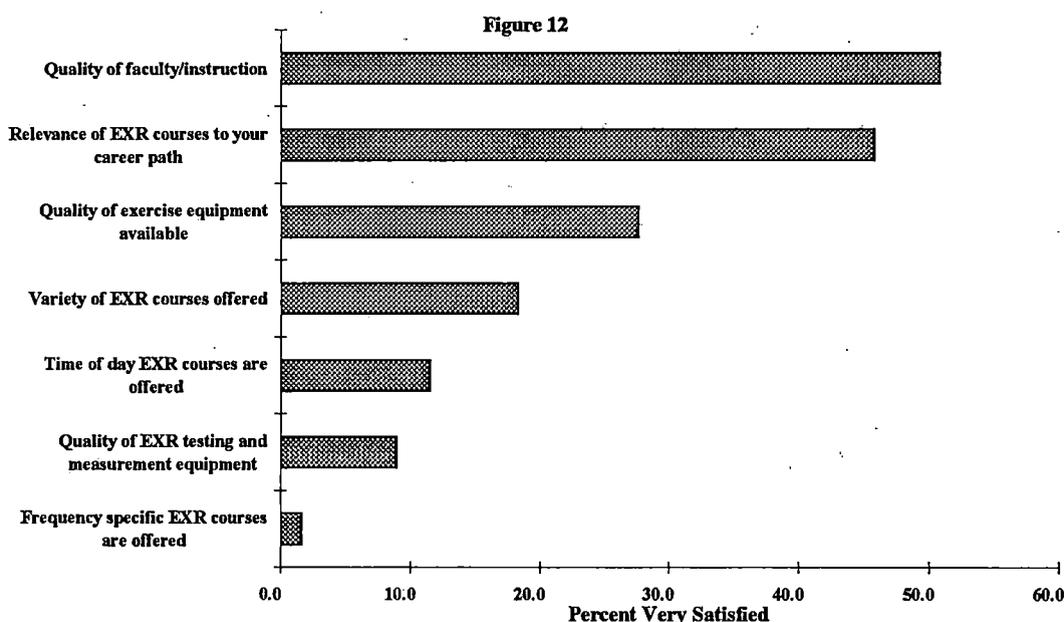
They should offer classes year-round. I have seen classes only offered in summer or one other semester.

I would prefer more evening classes. Also, I want a greater frequency of offerings.

Consult with students, i.e., take a vote in class to see the best course and time offerings of the greatest amount of students. Present options before committing them to the schedule.

Table 12
Level of Satisfaction with the Exercise Science & Technology Program
(Students Majoring in EXR Only)

	<i>Very Satisfied</i>	<i>Satisfied</i>	<i>Neutral</i>	<i>Dissatisfied</i>	<i>Very Dissatisfied</i>
Quality of faculty/instruction	50.8	32.8	11.5	3.3	1.6
Relevance of EXR courses to your career path	45.8	40.7	11.8	1.7	0.0
Quality of exercise equipment available	27.6	39.7	13.8	3.4	15.5
Variety of EXR courses offered	18.3	61.7	10.0	8.3	1.7
Time of day EXR courses are offered	11.5	50.8	14.8	18.0	4.9
Quality of EXR testing and measurement equipm	8.9	46.7	22.2	13.3	8.9
Frequency specific EXR courses are offered	1.6	44.3	13.1	32.8	8.2



The greatest concern of students majoring in EXR appears to be the frequency of class offerings (see Table 12 and Figure 12). When asked whether the best time for classes would be "morning," "afternoon," or "evening," most students favor evening classes, although there appears to be no distinct preference for morning or afternoon classes. There seems to be no particular best day of the week, nor is there a definite time of year that students prefer to take classes.

Exercise Science Programs in Michigan

According to the Classification of Instructional Programs, United States Department of Education, 1991, available college catalogues, and telephone interviews with college personnel, there are a large number of community colleges in Michigan that provide programs in physical education. In all cases, these programs are geared toward transfer toward education in a four-year college. Currently, only two community colleges have a program remotely related to OCC's Exercise Science program, Henry Ford Community College and

Alpena Community College. Henry Ford Community College's programs are called Fitness Leadership and Sports and Fitness Administration/Management, both of which lack EKG preparation, and do not include cardiovascular rehabilitation (which OCC's program puts considerable emphasis on). Alpena Community College's program in Health Science is relatively small and, as reported by one of their instructors, understaffed.

Lansing Community College's 18 year old cardiovascular program includes extensive instruction in Phase III, but no degree or certificate programs are offered, there are only personal interest classes. Community colleges with physical education transfer programs include; Gogebec, Jackson, Grand Rapids, Southwestern, Schoolcraft, Muskegon, Kellogg, Lansing and Kalamazoo.

Currently, there are several colleges with one and two year programs in Medical Assisting. There are only a few colleges with a one or two year Gerontology program, other than OCC: Mott, Wayne County, Lansing, Macomb and Kellogg.

Several four year institutions in Michigan were contacted as well about transfer to their programs. Students from the OCC EXR Program have transferred to local four year colleges and/or universities. Programs they tend to transfer to are Exercise Science, Physical Education-Education, Exercise Physiology, and Physical Therapy.

Alpena Community College: Alpena Community College offers an Associate Degree in Science or Arts in Health Fitness, as well as a Certificate in Exercise Technology. There are one or two degree graduates per year and there have been no certificate recipients as of May 1994. The program is general and includes basic first aid, nutrition and health, fitness testing, biology courses and other general courses. Cardiovascular rehabilitation is not included, but certification for the American College of Sports Medicine is available. This is mainly a preparatory course for a four-year college. All graduates have gone onto four-year colleges entering into Exercise Science, Physiology and Physical Education/Education programs. There is indication that there is not enough professional staff to make this program more comprehensive.

Henry Ford Community College: Henry Ford Community College offers both a Certificate of Achievement and an Associate in Science Degree. The program offers a wide variety of courses, including Exercise Physiology, Nutrition, Methods of Teaching Aerobics, and Aquacise. The College does not include a program in cardiovascular rehabilitation. Those who transfer to a four-year college continue their training in the physical education and fitness areas.

Lansing Community College: Lansing Community College does not offer a degree or certificate program, but does have an intensive Cardiovascular Rehabilitation program. This cardiac program, which has been in effect for eighteen years, is run by licensed Exercise Physiologists and has recently been reclassified as the Physical Fitness and Wellness Program. A Phase III program is used at the College.

Four-Year Higher Education Institutions

Adrian College: Adrian College offers a Bachelor of Arts in Health, Physical Education and Recreation, and additional minors in Coaching, Sports Medicine and Health, Physical Education and Recreation.

Alma College: Alma College's Bachelor program in Exercise and Health Science closely resembles that of OCC's Exercise Science program. The program emphasizes a unique combination of strong science education with generous laboratory experiences in exercise testing and prescription, cardiac rehabilitation, health promotion, sports medicine, research and teaching. Graduates are prepared for employment in corporate or hospital settings, health and wellness intervention programs, athletic training and other health-related careers. This program can be taken as a major or as a minor.

Andrews University: Andrews University has a program in Physical Education, Health and Recreation where a student may receive a Bachelor's Degree as a major or as a minor. Teaching certification may also be obtained through this program. A concentration or a minor in Health Science is also an option at the College. The Physical Education, Health and Recreation program consists of general sports courses, physical education theory courses, and recreation.

Aquinas College: Aquinas College offers a Bachelor of Health, Physical Education and Recreation, as a major and as a minor. The College also has a dual major in Sports Management and Business Administration. A student may specialize in Gerontology or Activity Specialist, as well. There is a Recreation Administration with a specialization in Gerontology, and an Associate of Arts in Gerontology Certificate Program.

Central Michigan University: CMU offers a Bachelor's Degree in Sports Studies (major and minor), and Sports Medicine (major) in Athletic Training.

Eastern Michigan University: EMU offers a Bachelor of Science Degree in Sports Medicine, as well as a Degree in Physical Education/Education. The College includes an Exercise Science Option along with the Degree in Sports Medicine. The Option includes a practicum and an internship, but does not address cardiovascular rehabilitation.

Oakland University: Oakland University accepts OCC Exercise Science and Technology graduates into their general program where the student may receive a general Bachelor's Degree with a minor in Exercise Science. There is also a program leading to a Master of Exercise Science. Presently there is an agreement between Oakland University and Oakland Community College to accept all OCC graduates in their junior year with no penalties.

Spring Arbor College: Spring Arbor College offers Bachelor Degrees in Exercise and Sports Science as a major and as a minor. They also offer concentrations in Physical Fitness Management and Sports Administration.

Wayne State University: Wayne State University promotes its Master of Science Degree in Physical Education and Exercise Science. Students may obtain their undergraduate Degree in Physical Education/Education.

CONCLUSION

Summary

Changes in the exercise science industry are inevitable, as they are in any industry, but the field is so vast and ambiguous that precise changes are difficult to predict. While experts suggest that there will be changes in the near future, there is indication that current wages are relatively low, the majority of employers are not hiring, and that either a bachelor's degree is required, or there is no specific educational requirement at all. Health Clubs are the largest group of employers currently hiring (46.2%), yet they pay their entry level personnel the lowest wages. Several employers (especially Hospital/Retirement) admit that they are becoming increasingly dependent on the employees' compassion for their clients and dedication to their employer, rather than relying on specific educational requirements.

There is some indication that those entering the field of exercise science may need to be innovative and examine alternative employment opportunities within the industry. As club membership may be declining, room is being made for personal trainers and entrepreneurs. Individuals entering the workforce need to explore new and innovative training methods for which the working population has less time, yet are aware of the physical and psychological benefits of health and fitness.

Enrollment in the EXR program has increased steadily, until 1992-93 when both enrollment and credit hours declined. Graduation from the program has increased over the last five years (1988-93). Overall, students and employers seem to be content with the instruction in the OCC EXR program, yet practical experience was ranked very low on the students' scale of program likes. The student survey strongly suggests that the greatest concern of EXR majors is the insufficient frequency of class offerings. Students appear to want classes offered more often.

Employers were asked to give their opinions on the need for a Medical Assisting Option, a Gerontology Option, and/or a Business Option. Findings indicate that employers are less interested in the Medical Assisting Option, while they are more supportive of the Gerontology and Business Options. Employers currently hiring responded negatively toward the Medical Assisting Option and the Business Option, but 64% think the Gerontology Option is a good idea.

On the other hand, student survey results indicate that only 18% of those students majoring in Exercise Science are "very interested" in the Medical Assisting Option. Forty percent are "very interested" in the Gerontology Option, and one third are "very interested" in the Business Option. Experts in the industry indicate that the Medical Assisting Option is not necessary, but they are in favor of the Gerontology and Business Options.

Findings suggest that employers believe that one of the three options would be an advantage for prospective entry level personnel. Hospital/Retirement is the only group of employers indicating that it would not make a difference in their hiring practices. Employers currently hiring indicate that an option would be an advantage; Health Clubs (58.3%), Corporate Consultants (83.3%), and Specialized Training (83.3%).

There are currently only two community colleges that have a program remotely related to OCC's Exercise Science program, Henry Ford Community College and Alpena College, both lacking in EKG and cardiovascular rehabilitation.

Issues

- There is some indication from experts in the industry that the options may be a good idea overall, but they are concerned that the content of the option classes should be specifically geared toward exercise science.
- Conversations with faculty at four-year colleges indicate that having an option might make the student more attractive for admission purposes, but the same number of credits will only be allowed for transfer. Therefore, there may be students with the added extra courses not being able to transfer some credits. Suggestions might be to drop less important classes in the program and/or warn the students ahead of time that only so many credits are transferable. For graduates entering the employment field immediately, the options may be advantageous as most employers indicated on the employer survey, but the majority of employers require either a bachelor's degree or have no specific educational requirement.
- Since there is a 60% transfer rate in the Exercise Science program at OCC currently, and most of the colleges in affiliated fields operate transfer programs, perhaps changing the curriculum to a transfer program should be considered.
- Employers favored the Business Option overall, yet basic business skills is the least desired quality for entry level exercise science personnel.
- EKG certification is one advantage students may obtain with the Medical Assisting Option, yet only 35% of employers ranked EKG as an important skill.
- Practical experience tends to be rated very low by students majoring in Exercise Science. This suggests that the internship program may need to be examined more closely.
- Some students desire more flexibility in choosing courses that comprise each option.

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APPENDIX A

1993 Student and Financial Data Book

Table 3.7
Trends in Annual Duplicated Student Headcount by Course Prefix Code
(Academic Year 1983-84 Through 1992-93)

Course Code	Course Prefix Description	1983-84 Students	1984-85 Students	1986-87 ** Students	1987-88 Students	1988-89 Students	1989-90 Students	1990-91 Students	1991-92 Students	1992-93 Students	Percent Change	
											5- Year	10- Year
ALLIED HEALTH												
DEN	Dental Assisting	362	193	77	102	31	27	29	28	30	-3.2	-91.7
DHY	Dental Hygiene	462	451	452	464	471	471	456	459	473	0.4	2.4
DMS	Diagno. Med Sonography	189	214	220	195	226	211	190	186	201	-11.1	6.3
EMT	Emergency Med Tech	333	409	216	241	195	253	314	425	409	109.7	22.8
EXL	Exercise Leadership	77	150	155	168	194	262	352	423	329	69.6	327.3
HCA	Health Care Admin.	248	195	181	176	181	182	185	208	220	21.5	-11.3
HEA	Health	484	432	545	682	714	756	992	1,044	1,212	69.7	150.4
HPT	Hospital Pharmacy Tech	191	148	134	97	85	87	87	104	138	62.4	-27.7
MDA	Medical Assisting	296	180	186	203	188	169	176	227	295	56.9	-0.3
MED	Medical Technology	1,169	1,074	731	699	524	517	661	803	903	72.3	-22.8
MHA	Mental Health	578	614	617	581	496	523	527	529	518	4.4	-10.4
NCT	Noninvasive Cardiovascular	0	0	0	0	0	0	0	121	129	-	-
NUR	Nursing	1,363	718	945	1,118	1,292	1,526	1,508	1,914	2,057	59.2	50.9
PNE	Practical Nurse Education	857	782	807	1,013	1,037	1,107	1,037	1,103	743	-28.4	-13.3
RAD	Radiologic Tech	0	0	0	0	0	67	120	134	176	-	-
RSP	Respiratory Therapy	187	163	183	209	169	153	148	171	233	37.9	24.6
Subtotal - Allied Health		6,796	5,723	** 5,449	5,948	5,803	6,311	6,782	7,879	8,066	39.0	18.7
AUTOMOTIVE TECHNOLOGIES												
ADT	Automobile Drawing	0	0	13	0	19	151	38	177	83	-	-
APD	Apprentice Drafting	283	297	340	354	283	305	246	196	111	-60.8	-60.8
APM	Apprentice Mathematics	251	357	245	216	152	122	112	86	83	-45.4	-66.9
APP	Apprentice Physics	183	220	229	168	141	68	90	94	90	-36.2	-50.8
APS	Apprentice Shop	45	55	63	42	16	29	9	13	0	-100.0	-100.0
APT	Apprentice Technical	264	288	273	166	119	67	61	49	58	-51.3	-78.0
ATA	Automobile Servicing	908	589	438	490	486	447	478	302	475	-2.3	-47.7
ATF	Fluid Power Tech	775	548	335	221	119	135	149	106	73	-38.7	-90.6
ATM	Machine Tool Tech	115	141	653	316	351	285	367	294	205	-41.6	78.3
ATW	Welding/Fabrication Tech	303	222	162	192	132	143	75	72	168	27.3	-44.6
AUT	Automotive Tech	154	96	99	44	29	35	49	14	24	-17.2	-84.4
CAD	Computer Aided Design	926	678	1,057	1,081	1,199	1,342	1,468	1,678	1,836	53.1	98.3
CIM	Computer Integrated Mfg.	0	0	210	173	102	118	174	137	158	54.9	-
DDT	Drafting Design Tech/ DRT	1,021	915	1,068	976	991	1,125	1,171	1,119	1,118	12.8	9.5
DHE	Diesel/Heavy Equipment	161	134	85	106	71	37	2	0	0	-100.0	-100.0
ETT	Electrical Trades Tech	1,500	1,290	1,047	927	693	620	446	159	85	-87.7	-94.3
IND	Industrial Sciences	198	780	109	101	125	89	132	131	160	28.0	-19.2
IPD	Industrial Prod. Design	69	95	52	17	50	36	0	0	11	-78.0	-84.1

Table 3.6
Trend in Annual Student Credit Hours by Course Prefix Code*
(Academic Years 1983-84 Through 1992-93)

Course Code	Course Prefix Description	1983-84	1984-85	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	Percent Change	
		SCH	SCH	** SCH	SCH	5- Year						
ALLIED HEALTH												
DEN	Dental Assisting	1,182.0	629.0	244.0	327.0	93.0	81.0	87.0	84.0	90.0	-3.2	-92.4
DHY	Dental Hygiene	1,138.0	1,109.0	1,109.0	1,134.0	1,149.0	1,156.0	1,111.0	1,127.0	1,157.0	0.7	1.7
DMS	Diagno. Med Sonography	721.0	830.0	922.0	827.0	963.0	897.0	805.0	788.0	863.0	-10.4	19.7
EMT	Emergency Med Tech	1,319.0	1,524.0	868.0	839.0	687.0	833.0	1,111.0	1,443.0	1,412.0	105.5	7.1
EXL	Exercise Leadership	260.0	505.0	524.0	538.0	605.0	817.0	1,062.0	1,298.0	1,038.0	71.6	299.2
HCA	Health Care Admin.	726.0	572.0	525.0	510.0	531.0	532.0	541.0	614.0	642.0	20.9	-11.6
HEA	Health	1,395.0	1,265.0	1,591.0	2,033.0	2,119.0	2,268.0	2,976.0	3,132.0	3,636.0	71.6	160.6
HPT	Hospital Pharmacy Tech	704.0	535.0	507.0	377.0	338.0	343.0	337.0	385.0	522.0	54.4	-25.9
MDA	Medical Assisting	896.0	541.0	566.0	612.0	579.0	508.0	527.0	714.0	920.0	58.9	2.7
MED	Medical Technology	3,876.0	3,876.0	2,714.0	2,602.0	1,875.0	1,825.0	2,138.0	2,477.0	2,709.0	44.5	-30.1
MHA	Mental Health	2,724.0	2,910.0	2,934.0	2,754.0	2,370.0	2,516.0	2,540.0	2,556.0	2,544.0	7.3	-6.6
NCT	Noninvasive Cardiovascular	0.0	0.0	0.0	0.0	0.0	0.0	0.0	323.0	420.0	-	-
NUR	Nursing	10,876.0	5,552.0	5,947.0	5,278.0	5,607.0	5,231.0	4,805.0	5,898.5	6,673.0	19.0	-38.6
PNE	Practical Nurse Education	3,363.0	3,067.0	3,137.0	3,905.0	4,097.0	4,336.0	4,062.0	4,333.0	2,962.0	-27.7	-11.9
RAD	Radiologic Tech	0.0	0.0	0.0	0.0	0.0	258.0	454.0	511.0	620.0	-	-
RSP	Respiratory Therapy	668.0	566.0	741.0	851.0	684.0	619.0	586.0	676.0	923.0	34.9	38.2
Subtotal - Allied Health		29,848.0	23,481.0	** 22,329.0	22,587.0	21,697.0	22,220.0	23,142.0	26,359.5	27,131.0	25.0	-9.1
AUTOMOTIVE TECHNOLOGIES												
ADT	Automobile Drawing	0.0	0.0	39.0	0.0	57.0	453.0	114.0	531.0	249.0	336.8	-
APD	Apprentice Drafting	849.0	891.0	1,020.0	1,062.0	849.0	915.0	738.0	588.0	333.0	-60.8	-60.8
APM	Apprentice Mathematics	739.0	1,043.0	706.0	627.0	435.0	356.0	327.0	246.0	249.0	-42.8	-66.3
APP	Apprentice Physics	366.0	440.0	458.0	336.0	282.0	136.0	180.0	188.0	180.0	-36.2	-50.8
APS	Apprentice Shop	135.0	165.0	189.0	126.0	48.0	87.0	27.0	39.0		-100.0	-100.0
APT	Apprentice Technical	700.0	696.0	694.0	413.0	327.0	151.0	164.0	147.0	142.0	-56.6	-79.7
ATA	Automobile Servicing	3,632.0	2,356.0	1,752.0	1,960.0	1,944.0	1,788.0	1,912.0	1,208.0	1,900.0	-2.3	-47.7
ATF	Fluid Power Tech	2,325.0	1,644.0	1,005.0	663.0	357.0	405.0	447.0	318.0	219.0	-38.7	-90.6
ATM	Machine Tool Tech	345.0	423.0	1,959.0	948.0	1,053.0	855.0	1,117.0	882.0	615.0	-41.6	78.3
ATW	Welding/Fabrication Tech	909.0	666.0	486.0	576.0	396.0	429.0	225.0	216.0	504.0	27.3	-44.6
AUT	Automotive Tech	616.0	384.0	396.0	176.0	116.0	140.0	196.0	56.0	96.0	-17.2	-84.4
CAD	Computer Aided Design	2,778.0	2,034.0	3,171.0	3,243.0	3,627.0	4,071.0	4,489.0	5,227.0	5,828.0	60.7	109.8
CIM	Computer Integrated Mfg.	0.0	0.0	840.0	692.0	408.0	472.0	696.0	548.0	632.0	54.9	-
DDT	Drafting Design Tech/ DRT	3,063.0	2,745.0	3,204.0	2,928.0	2,973.0	3,375.0	3,513.0	3,357.0	3,354.0	12.8	9.5
DHE	Diesel/Heavy Equipment	644.0	562.0	340.0	424.0	292.0	164.0	8.0	0.0	0.0	-100.0	-100.0
ETT	Electrical Trades Tech	4,158.0	3,584.0	2,968.0	2,613.0	1,944.0	1,759.0	1,271.0	494.0	305.0	-84.3	-92.7
IND	Industrial Sciences	503.0	1,672.0	358.0	326.0	363.0	254.0	323.0	406.0	565.0	55.6	12.3
IPD	Industrial Prod. Design	204.0	285.0	156.0	51.0	150.0	108.0	0.0	0.0	33.0	-78.0	-83.8

APPENDIX B

Exercise Science & Technology

ADVISORY COMMITTEE MEMBERS

Exercise Science & Technology

ADVISORY COMMITTEE MEMBERS

OCC Staff:

Dr. Jim Warner
Sue Murdock
Sarah Serra
Lynn Reed
Dee Scherer
Tracie Drayton

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Arlington, VA 22203

APPENDIX C

Exercise Science & Technology

PROPOSED OPTION PROGRAM OUTLINES

Exercise Science & Technology

Highland Lakes

Associate in Applied Science

Major Requirements		Credits
EXL 150*	Introduction to Exercise Leadership	4
EXL 151*	Exercise Physiology	3
EXL 152*	Testing and Measurement in Exercise Physiology	3
EXL 203*	Applied Exercise Physiology in Apparently Healthy Adults	3
EXL 204*	Applied Exercise Physiology for Individuals with Disease and Disability	3
EXL 205*★	Diet and Exercise	3
EXL 210*	Health Promotion at the Worksite	2
EXL 240*	Internship in Exercise	4
EXL 253*	Cardiovascular Rehabilitation Internship	4

Required Supportive Courses

BIO 160 ¹	Human Structure and Function	3
HEA 151	Nutrition	3
PER 157	Fundamentals of Physical Education	3
PER 254*	First Aid and Emergency Services/First Responder	4
PER 284	Recreational Leadership	3
MDA 157*	Basic Electrocardiography	3
PSY 151★	Applied Psychology	3
OR		
PSY 251★	Introduction to Psychology	3
SPE 129★	Interpersonal Communication	3
OR		
SPE 161★	Fundamentals of Speech	3
ENG 135★ ²	Business Communications	3

Recommended Electives

ACC 111	Fundamental Accounting	3
CIS 105	Personal Computer Applications	4
EXL 101	Leading Aerobic Dance - Exercise	2
MED 110.3	Medical Terminology	3

General Education Requirements

See graduation requirements for an Associate in Applied Science Degree on Pages 35, 37 and 38.

The Exercise Science and Technology program leads to an Associate Degree in Applied Science.

This degree and certificate program will include classroom and laboratory experiences in fitness testing and principles of conditioning with application under various conditions: age, environment, sex, nutrition, disease, and disability. Students will be certified in CPR and First Aid. They will learn principles of motivation, public speaking, and behavior change. They will also receive direct field experience in an exercise internship and in a cardiac rehabilitation internship.

The candidate should enjoy exercise and be a role-model of a healthy lifestyle; should have an aptitude for working with adults and cooperating with other health professionals. The program will offer the student the opportunity to prepare for the American College of Sports Medicine Certification Exam of his/her choice.

Upon completion of the program, the students will be prepared to find employment in various types of health centers where exercise is used therapeutically.

¹Biology 163 and 164 may be substituted.

²English 151 may be substituted.

★General Education courses listed as Required Supportive may be used to meet requirements of the General Education component.

*When all courses marked with an asterisk are completed, the student may apply for a Certificate.

Exercise Science & Technology

Highland Lakes

Associate in Applied Science

<u>Major Requirements**</u>		<u>Credits</u>
EXS 150*	Introduction To Exercise Leadership	4
EXS 151*	Exercise Physiology	3
EXS 152*	Testing and Measurement in Exercise Physiology	3
EXS 203*	Applied Exercise Physiology in Apparently Healthy Adults	3
EXS 204*	Applied Exercise Physiology for Individuals with Disease and Disability	3
EXS 205*★	Diet and Exercise	3
EXS 210*	Health Promotion at the Worksite	2
EXS 240*	Internship in Exercise	4
EXS 253*	Cardiovascular Rehabilitation Internship	4

<u>Required Supportive Courses**</u>		
BIO 160 ¹	Human Structure and Function	3
HEA 151	Nutrition	3
PER 157	Fundamentals of Physical Education	3
PER 254*	First Aid and Emergency Services/First Responder	4
PER 284	Recreational Leadership	3
MDA 157*	Basic Electrocardiography	3
PSY 151★	Applied Psychology	3
	or	
PSY 251★	Introduction to Psychology	3
SPE 129★	Interpersonal Communication	3
	or	
SPE 161★	Fundamentals of Speech	3
ENG 135★ ²	Business Communications	3

<u>Recommended Electives</u>		
ACC 111	Fundamental Accounting	3
CIS 105	Personal Computer Applications	4
EXS 101	Leading Aerobic Dance - Exercise	2
MED 110.3	Medical Terminology	3

General Education Requirements

See graduation requirements for an Associate in Applied Science Degree on Pages 35, 37, and 38.

Total Program Hours 66

The Exercise Science and Technology program leads to an Associate Degree in Applied Science.

This degree and certificate program will include classroom and laboratory experiences and applications in fitness testing, and principles of conditioning under various variables and conditions: age, environment, sex, nutrition, and disease, and disability. Another important component of the program is health promotion.

The students will be certified in CPR and First Aid. They will learn principles of motivation, public speaking, and behavior change. The students will also receive direct field experience in an exercise internship and in a cardiac rehabilitation internship.

The candidates should enjoy exercise, health promotion, and be a role-model of a healthy lifestyle. They should have an aptitude for working with adults and cooperating with other health professionals.

Upon completion of the program, the students will be prepared to find employment where exercise and health promotion is used in preventive intervention, as well as therapeutical application. The students also have the option to transfer to a four-year college in Exercise Science or related fields.

The design of this program also provides students with the opportunity to broaden their skills and expertise by participating in one of the following Exercise Science and Technology options: Medical Assisting; Noninvasive Cardiovascular Technology; Gerontology; or Business. Students have the option of various certifications, but none are required. The American College of Sports Medicine (ACSM) has various levels of certifications. Students are encouraged to seek one of the ACSM certifications.

****CORE COURSES:** The major requirements and required supportive courses are mandatory for all EXS options; however, the students do have the option of taking PER 157 OR PER 284.

¹Biology 163 and 164 may be substituted.

²English 151 may be substituted.

★General Education courses listed as Required Supportive may be used to meet requirements of the General Education component.

*When all courses marked with an asterisk are completed, the student may apply for a Certificate.

Exercise Science & Technology

Medical Assisting Option

Highland Lakes

Extended Associate Program

Required Supportive Courses

PER 157	Fundamentals of Physical Education	3
	or	
PER 284	Recreational Leadership	3
MED 110.3	Medical Terminology	3
MDA 114	Medical Assisting - Clinical Procedures I	3
MDA 120	Basic X-ray Techniques and Spirometry	1
MDA 125	Phlebotomy	1
MDA 158	Intermediate EKG and Arthymias	3

Core Courses Required: (See Page)

General Education Requirements

See graduation requirements for an Associate in Applied Science Degree on Pages 35, 37, and 38.

Total Program Hours 74

Enrollment in this option requires consent of the Medical Assisting Department. The program leads to an Associate Degree in Applied Science. As an allied health program, Exercise Science and Technology, works hand-in-hand with the medical community. This option is designed to broaden students' skills so they can work in conjunction with a medical facility. The option will also offer the student the opportunity to prepare for EKG certification.

Exercise Science & Technology

Business Option

Highland Lakes

Extended Associate Program

Required Supportive Courses

PER 157	Fundamentals of Physical Education	3
	or	
PER 284	Recreational Leadership	3
BUS 101	Introduction to Business	3
BUS 121	Starting and Operating a Small Business	3
BUS 131	Principles of Supervision	3
	or	
BUS 253	Principles of Management	3

This option leads to a degree in Applied Science. Many graduates in the Exercise Science and Technology field seek employment in a management position at a health club or become entrepreneurs. The business option provides principles and practices of business, how to start and operate a small business, and the principles of supervision and management.

Core Courses Required: (See Page)

General Education Requirements

See graduation requirements for an Associate in Applied Science Degree on Pages 35, 37, and 38.

Total Program Hours 72

Exercise Science & Technology

Gerontology Option

Highland Lakes

Extended Associate Program

Required Supportive Courses

PER 157	Fundamentals of Physical Education	3
	or	
PER 284	Recreational Leadership	3
GRN 251	Introduction to Gerontology	3
GRN 252	Health and Aging	3
GRN 256	Personal and Social Applications in Aging	3

This option leads to an Associate in Applied Science Degree. Health promotion is important for all age groups with a special emphasis being placed on senior adults because they are one of our fastest growing populations. This option allows additional insights into the limitations and/or capabilities of older people, with special emphasis being placed on the needs of this age group.

Core Courses Required: (See Page . . .)

General Education Requirements

See graduation requirements for an Associate in Applied Science Degree on Pages 35, 37, and 38.

Total Program Hours 72

APPENDIX D

Exercise Science & Technology

EMPLOYER LIST

Employer List
Exercise Science & Technology Program

Addison Oaks County Park
1480 W. Romeo Rd.
Leonard, MI

Cardiovascular Specialists, PC, Inc.
29645 W. 14 Mile Rd.
Farmington Hills, MI 48334

Ford Motor Company
Dearborn MI, 48121

American Heart Association
16310 West 12 Mile road
Southfield, MI 48076

Children's Hospital
Detroit, MI 48201

Franklin Racquet Club
29350 Northwestern Highway
Southfield, MI 48304

American Rehabilitation Network
Ergonomic Technology Division
Detroit, MI 48226

Clio Convalescent Center Inc.
13137 Clio Rd.
Clio, MI 48420

Harper Hospital
Detroit, MI

Ask Health Care Associates Inc.
24681 Northwestern Hwy.
Southfield, MI 48075

Crittenton Hospital, Inc.
Physical Fitness Facility
1720 S. Livernois Rd.
Rochester, MI 48307

Health Care and Retirement Corporation
of America
29270 Morlock St.
Livonia, MI 48152

Bally's Aladdin's Castle, Inc.
30130 Van Dyke Ave.
Warren, MI 48093

Electronic Data Systems - EDS
800 Tower Drive
Troy, MI 48098

Harris Hillsland Health Corp.
(Michigan Branch)
151 N. Michigan, #211
Toledo, OH 43624

Bally's Health & Fitness
16000 Northland Drive
Southfield, MI 48075

Faith Medical Care Center Inc.
4220 Hospital Dr.
East China, MI 48054

Huron Valley Hospital
1601 E. Commerce Road
Milford, MI 48042

Beaumont Rehab & Health Center
Cardiac Rehab
746 Purdy
Birmingham, MI 48005

Fitness Factory Inc.
26877 Northwestern Highway
Suite 409
Southfield, MI 48034

Jewish Community Center
6600 W. Maple Rd.
West Bloomfield, MI

Body Rocks Gym Inc.
36115 Plymouth Rd.
Livonia, MI

Fitness Forum Ltd.
6236 Atkins Rd.
Troy, MI 48098

Jewish Community Center of
Metropolitan Detroit
Oak Park Branch
15110 W. 10 Mile Rd.
Oak Park, MI

Cardiology Associates P.C. (Inc.)
2575 Woodward Ave.300
Berkley, MI 48072

Fitness USA
14400 Pardee
Taylor, MI

Lake Forest Health Services
31740 Franklin Fairway St.
Farmington Hills, MI 48334

Cardiovascular Health Associates, PC
28595 Orchard Lake Rd.
Farmington Hills, MI 48334

Fitness USA
7677 Wayne Rd.
Westland, MI

Lapeer County Medical Care Facility Inc.
1455 Suncrest Dr.
Lapeer, MI 48446

One-On-One Athletic Club
6343 Farmington Road
West Bloomfield, MI 48033

Sports Care Specialists (Ritu Kapoor)
1773 W. Big Beaver
Troy, MI 48084

Liberty Sports Complex Inc.
2975 W. Liberty Rd.
Ann Arbor, MI 48108

Pontiac, City of
Parks & Recreation Department
1305 N. Oakland Blvd.
Pontiac, MI 48340

Sterling Physical Therapy &
Rehabilitation Inc.
29256 Ryan Rd.
Warren, MI 48092

MDBM Inc.
2308 E. Hill Rd.
Grand Blanc, MI 48349

Prescription Fitness Inc.
5210 Highland Rd.
Waterford, MI 48327

Total Fitness
2331 Orchard Lake
Farmington, MI

Michigan National Bank Corporation
27777 Inkster Road
P.O. Box 9065
Farmington Hills, MI 48018-9065

Professional Rehab Services
5840 N. Canton Center Rd.
Canton, MI

University of Michigan, MedSport
Cardiac Testing and Rehabilitation
24 Frank Lloyd Wright Drive
P.O. Box 1023
Ann Arbor, MI 48106-1023

Michigan Therapeutic Services Inc.
29482 W. 10 Mile Rd.
Farmington, MI 48336

Rehability Center
28815 8 Mile
Livonia, MI

Vic Tanny International Inc.
6420 Telegraph Rd.
Bloomfield Hills, MI 48301

Mount Clemens General Hospital
Cardiac Rehabilitation Department
Teresa Choast, Assistant Dir. Cardiac
Rehab.
1000 Harrington
Mt. Clemens, MI 48043

Residential Care Alternatives Inc.
1249 Washington Blvd.
Detroit, MI 48226

Vic Tanny International Inc.
40700 E. Ann Arbor Rd.
Plymouth, MI 48170

New Attitude Aerobics, Inc.
Contract Exercise Program for Northville
Recreation Dept.
Northville, MI 48167

Rose Shores Racquetball Inc.
31950 Little Mack Ave.
Roseville, MI 48066

Vic Tanny International Inc.
44987 Schoenherr Rd.
Sterling Heights, MI 48313

Oakland General Hospital (Michael
O'Neil)
27351 Dequindre
Madison Heights, MI 48071

St. John Hospital
Hospital Physical Therapy Unit
22101 Mosross Road
Detroit, MI 48236

Vic Tanny International of Wisconsin,
Inc.
1490 N. Oakland Blvd.
Waterford, MI 48386

Oakwood Sports Medicine & Physical
Therapy Center
7330 N. Canton Center Rd.
Canton, MI

Schoenherr Physical Therapy Center
25647 Schoenherr Rd.
Warren, MI 48089

WBA Professional Corp
900 Auburn Ave.
Pontiac, MI 48342

Sisters of Mercy Health Corporation
Grand Haven, MI 48417

YMCA of Metro Detroit, Oakland
Branch
839 S. Crooks Road
Clawson, MI 48017

APPENDIX E

Exercise Science & Technology

EMPLOYER SURVEY

Exercise Science & Technology

Employer Survey

1. Which of the following best describes your business? (*Check ONLY ONE*)

- 1 Health Club - Franchised (Vic Tanny, Gold's, etc.)
- 2 Health Club - Privately owned
- 3 Corporate facility
- 4 Corporate consultant
- 5 Personal trainer
- 6 Specialized training facility (eg. rehabilitation...)
- 7 Public recreation facility (eg. parks & recreation, YMCA/YWCA...)
- 8 Hospital or other medical facility
- 9 Nursing home/Retirement home
- 10 Other, please specify:

2. Does your company employ staff with training or background in the exercise/health promotion/wellness field?

- 1 Yes (*Go to 3*)
- 0 No (*thank the individual for their time and discontinue the survey*)

3. Please briefly describe some of the specific job duties/responsibilities for employees in the exercise field?

4. Is your company **currently** hiring any personnel in the exercise field?

- 1 Yes
- 0 No (*Skip to #6*)
- 9 No response

5. What are the reasons for hiring employees in the exercise field?

- | | <i>Yes</i> | <i>No</i> |
|---|------------|-----------|
| a Expansion of the company | 1 | 0 |
| b Employee turnover | 1 | 0 |
| c Other reasons (<i>please specify</i>) | 1 | 0 |

6. Do you experience any difficulty finding entry level personnel trained for exercise positions?

- 1 _____ Yes (Go to 7)
0 _____ No (Skip to 8)
9 _____ No response

7. What kind of problems do you encounter?

8. In general, do you feel that applicants for entry level positions with your company are:

- 3 _____ Adequately prepared? (Skip to 10)
2 _____ Sometimes prepared?
1 _____ Usually not prepared?
9 _____ No response

9. What do you find to be the area(s) in which entry level personnel are unprepared for employment?

10. What is the minimum **educational** qualification required by your company for entry level exercise personnel? (Check **ONLY ONE**)

- 1 _____ No specific educational requirement
2 _____ High School or equivalent
3 _____ Associate's degree in exercise science
4 _____ 4 year degree (Please specify field of study):
5 _____ Other education or degree, not listed. Please explain:

11. Which of the following certifications do you require or prefer for entry level exercise personnel?

	<i>Require</i>	<i>Prefer</i>	<i>No</i>
a American College of Sports Medicine (ACSM).....	3	2	1
b American Council on Exercise (ACE).....	3	2	1
c Cardiopulmonary Resuscitation (CPR).....	3	2	1
d First Aid Emergency Procedures.....	3	2	1
d Other	3	2	1

Which one(s): _____

12. Do you assist your exercise employees to improve their knowledge and skills in any of the following areas? (*Check all that apply*)

	<i>Yes</i>	<i>No</i>
a Tuition assistance	1	0
b In-house training (<i>please explain below</i> ↓)	1	0
c "Other" assistance (<i>please explain below</i> ↓)	1	0

13. We currently have an associate's degree in Exercise Science & Technology. On a scale from 1 to 5, with 5 being **VERY IMPORTANT** and 1 being **NOT IMPORTANT**, please rate how important it is for entry level exercise science personnel to have a strong knowledge base in the following areas,

	<i>Very Important</i>	<i>Somewhat Important</i>	<i>Not Important</i>	<i>Don't Know</i>	<i>No Response</i>		
a) Exercise physiology.....	5	4	3	2	1	8	9
b) Testing and Measurement.....	5	4	3	2	1	8	9
c) Kinesiology	5	4	3	2	1	8	9
d) Exercise leadership.....	5	4	3	2	1	8	9
e) Cardiopulmonary resuscitation (CPR).....	5	4	3	2	1	8	9
f) Electrocardiography (EKG).....	5	4	3	2	1	8	9
g) Cardiovascular rehabilitation procedures	5	4	3	2	1	8	9
h) Nutrition	5	4	3	2	1	8	9
i) Weight training	5	4	3	2	1	8	9
j) First aid (emergency services).....	5	4	3	2	1	8	9
k) Exercise programs for children	5	4	3	2	1	8	9
l) Health promotion at the worksite	5	4	3	2	1	8	9
m) Biology	5	4	3	2	1	8	9
n) Psychology.....	5	4	3	2	1	8	9
o) Sociology	5	4	3	2	1	8	9

14. OCC is considering adding the following three concentrations to the exercise science program: **MEDICAL ASSISTING, GERONTOLOGY, and BUSINESS.** In accord with industry trends and your expertise in the field, do you consider any of these to be important?

MEDICAL ASSISTING

- 1 _____ Yes
 0 _____ No (*Skip to question 15*)
 8 _____ Not sure (*Skip to question 15*)
 9 _____ No response

On a scale from 1 to 5, with 5 being **VERY IMPORTANT** and 1 being **NOT IMPORTANT**, please rate how important it is for entry level exercise personnel to have a strong knowledge base in the following areas of medical assisting:

	Very Important	4	Somewhat Important	3	2	Not Important	1	Don't Know	8	No Response	9
a) Medical terminology.....	5	4	3	2	1	8	9				
b) Advanced EKG (for certification)	5	4	3	2	1	8	9				
c) Phlebotomy	5	4	3	2	1	8	9				
d) Spirometry	5	4	3	2	1	8	9				
e) Basic x-ray techniques.....	5	4	3	2	1	8	9				
f) Basic medical office techniques.....	5	4	3	2	1	8	9				

- g) Are there any other areas in medical assisting not listed that you consider to be important?

15. What about a concentration in:

GERONTOLOGY

- 1 _____ Yes
 0 _____ No (*Skip to question 16*)
 8 _____ Not sure (*Skip to question 16*)
 9 _____ No response

On a scale from 1 to 5, with 5 being **VERY IMPORTANT** and 1 being **NOT IMPORTANT**, please rate how important it is for entry level exercise personnel to have a strong knowledge base in the following areas of gerontology:

	Very Important	4	Somewhat Important	3	2	Not Important	1	Don't Know	8	No Response	9
a) Health and aging	5	4	3	2	1	8	9				
b) Personal and social applications in aging.....	5	4	3	2	1	8	9				
c) Exercise for disease and disabilities	5	4	3	2	1	8	9				
d) Gerontology concepts	5	4	3	2	1	8	9				
e) Are there any other areas in gerontology you consider to be important?											

16. What about a concentration in:

BUSINESS

- 1 _____ Yes
- 0 _____ No (*Skip to question 17*)
- 8 _____ Not sure (*Skip to question 17*)
- 9 _____ No response

On a scale from 1 to 5, with 5 being **VERY IMPORTANT** and 1 being **NOT IMPORTANT**, please rate how important it is for entry level exercise science personnel to have a strong knowledge base in the following areas of business:

	<i>Very Important</i>	<i>Somewhat Important</i>	<i>Not Important</i>	<i>Don't Know</i>	<i>No Response</i>		
a) Principles of management/supervision.....	5	4	3	2	1	8	9
b) Corporate fitness	5	4	3	2	1	8	9
c) Personal computer applications.....	5	4	3	2	1	8	9
d) Exercise/fitness consulting.....	5	4	3	2	1	8	9
e) Are there any other areas in business you consider to be important?							

17. If a prospective employee came to you holding an associate's degree in exercise science with one of these **additional concentrations**, would that person have an advantage over someone who holds only the base degree in exercise science?

- 1 _____ Yes
- 0 _____ No
- 8 _____ Not sure
- 9 _____ No response

WHY or WHY NOT?

18. Are there any other specific **techniques** you would like your entry level exercise personnel to have learned?

19. Please rate the importance of the following skills for entry level positions, using the scale: 3=VERY IMPORTANT, 2=SOMEWHAT IMPORTANT, 1=NOT IMPORTANT.

	<i>Very Important</i>	<i>Somewhat Important</i>	<i>Not Important</i>	<i>No Response</i>
a) Ability to work as a team member	3	2	1	9
b) Ability to lead exercise classes	3	2	1	9
b) Organizational skills	3	2	1	9
c) Ability to use individual initiative	3	2	1	9
d) Writing skills	3	2	1	9
e) Teaching skills	3	2	1	9
f) Good speaking skills	3	2	1	9
g) Problem solving skills	3	2	1	9
h) Interpersonal skills	3	2	1	9
i) Good listening skills	3	2	1	9
j) Basic business skills	3	2	1	9
k) Working with minimal supervision	3	2	1	9
l) Working with people from diverse backgrounds	3	2	1	9

20. Are there any other **personal skills** you would like your entry level exercise personnel to have? (*Probe*)

21. What is the **single most important quality or characteristic** you look for when you are hiring exercise personnel?

22. What related **advancement opportunities** are available for employees in exercise science?

23. Would those opportunities be **changed** if the employee holds an associate's degree in exercise science with a concentration in one of the areas discussed earlier? (*Medical Assisting, Gerontology, Business*)

- 1 _____ Yes
- 0 _____ No
- 8 _____ Not sure
- 9 _____ No response

WHY or WHY NOT?

24. What is the starting salary range for entry level personnel in exercise science?

Entry Level Salary Range

a) **FULL TIME**

OR \$ _____ to \$ _____ /year _____
\$ _____ to \$ _____ /hour _____ 99999

b) **PART TIME**

OR \$ _____ to \$ _____ /year _____
\$ _____ to \$ _____ /hour _____ 99999

25. Approximately what percent of your exercise personnel are:

_____ % Full time (more than 30 hrs./week)

_____ % Part time (less than 30 hrs./week)

26. Would your company be interested in sponsoring internships, either paid or unpaid, for OCC students in the exercise science program at OCC?

a) **PAID**

1 _____ Yes

0 _____ No

7 _____ Uncertain, please explain below: ↓

9 _____ No response

b) **UNPAID**

1 _____ Yes

0 _____ No

7 _____ Uncertain, please explain below: ↓

9 _____ No response

27. Would you be interested in assisting OCC in the design and development of the Exercise Science Program? (*This could include activities such as focus groups, advisory committees...*)

0 No

1 Yes

2 Maybe (*please explain below ↓*)

9 No response

28. Are there any other comments you would like to make at this time?

Thank you for your time and assistance. We appreciate your help and believe that your responses will help to influence what happens at OCC in the future. If you have any further questions please contact the Office of Planning and Analysis at (313) 471-7746.

APPENDIX F

Exercise Science & Technology

STUDENT SURVEY

EXERCISE SCIENCE STUDENT SURVEY

Student's Name: _____

Student's Social Security Number: _____

1. What were your reasons for taking exercise science courses at OCC? (*Do not read list, circle all that apply*)

	Yes	No
a. To obtain an OCC educational certificate	1	0
b. To obtain "other" certificate (American College of Sports Medicine (ACSM), First Aid, CPR, etc.)	1	0
c. To maintain certification.....	1	0
d. To obtain a degree	1	0
e. To fulfill physical education requirements.....	1	0
f. To complete courses necessary for transfer to another college	1	0
g. To prepare for a new career.....	1	0
h. To improve knowledge, technical skill or competency for your job.....	1	0
i. To comply with your employer's requirements.....	1	0
j. To increase your chances for a raise and/or promotion.....	1	0
k. To maintain your physical health and wellness.....	1	0
l. For personal development.....	1	0
m. To gain on-the-job experience through the internship program.....	1	0
n. Related to "other" program of study.....	1	0
o. Other (describe) _____		

What was the single most important reason? (*Indicate letter from above question*)

2. What is your current employment situation?

- 0 _____ Self employed
- 1 _____ Employed full-time. (*Go to question 3*)
- 2 _____ Employed part-time. (*Go to question 3*)
- 3 _____ Unemployed. Actively seeking employment (*Go to question 7*)
- 4 _____ Not employed and not seeking employment, *because of choice, illness, full time study, retirement, pregnancy or any other reason.* (*Go to question 7*)
- 9 _____ No response

3. What is your current job title? *(Be specific)*

4. On a scale from one to ten, with ten being "highly related" and one being "not at all related", to what extent is your current employment related to the coursework you have taken in exercise science? *(If they choose 1,2,3 or 4, skip to question 7)*

Not at all related 1 2 3 4 | 5 6 7 8 9 10 Highly related

5. Has the coursework you have taken in exercise science at OCC been helpful to you in your current employment?

1 _____ Yes
0 _____ No
9 _____ No response

How has it helped, or not helped you?

6. a) What is your typical work schedule like?

0 _____ Steady 9-5, Monday-Friday
1 _____ Irregular Hours (Please specify)
9 _____ No response

6. b) What are some of the typical duties that you perform on the job?

7. How do you plan to use the knowledge and skills gained in your exercise science courses at OCC, in the future? *(for example, career, future education, personal growth, health, certificate)*

8. What do you or did you most like about the exercise science courses/program?

9. What do you or did you most dislike about the exercise science courses/program?

10. Please rate your level of satisfaction with the following aspects of the exercise science program using the scale, 5=Very Satisfied, 4=Satisfied, 3=Neutral, 2=Dissatisfied, 1=Very Dissatisfied.

	<i>Very Satisfied</i>	<i>Satisfied</i>	<i>Neutral</i>	<i>Dissatisfied</i>	<i>Very Dissatisfied</i>	<i>No Response</i>
a) The variety of exercise science courses offered	5	4	3	2	1	9
b) The relevance of exercise science courses to your career path	5	4	3	2	1	9
c) The time of day exercise science courses are offered	5	4	3	2	1	9
d) The frequency with which specific exercise science courses are offered	5	4	3	2	1	9
e) The quality of faculty/instruction in exercise science	5	4	3	2	1	9
f) The quality of exercise equipment available at OCC for student use	5	4	3	2	1	9
g) The quality of exercise science testing and measurement equipment available at OCC	5	4	3	2	1	9

11. Is/was exercise science your major field of study at OCC?

- 1 _____ Yes (*Skip to question 13*)
 0 _____ No
 9 _____ No response

12. What is/was your major field of study? (*Skip to question 15*)

13. If it was offered, would you consider a concentration in any one of the following areas to be a worthwhile addition to the exercise science program?

A) **MEDICAL ASSISTING** (work in conjunction with the medical community and prepare for EKG certification)

- 1 ___ **Very interested**
2 ___ **Somewhat interested**
3 ___ **Not interested**
9 ___ *No response*

WHY or WHY NOT?

B) **GERONTOLOGY** (insights into the limitations and/or capabilities of older people, with special emphasis being placed on the needs of this age group)

- 1 ___ **Very interested**
2 ___ **Somewhat interested**
3 ___ **Not interested**
9 ___ *No response*

WHY or WHY NOT?

C) **BUSINESS** (principles and practices of business, starting and operating a small business, and the principles of supervision and management)

- 1 ___ **Very interested**
2 ___ **Somewhat interested**
3 ___ **Not interested**
9 ___ *No response*

WHY or WHY NOT?

D) **OTHER** (describe) _____

WHY?

14. *Ask only if the response to any one of 13a,b,c is "very interested" or "somewhat interested", otherwise skip to question 15.*

To receive this extended associate's degree in exercise science, these concentrations would require 6 to 8 additional credits beyond the current 66 credits. Would this information alter your previous answer?

- 1 ___ Yes
2 ___ No
3 ___ Maybe
9 ___ No response

PLEASE EXPLAIN

15. In terms of the scheduling of exercise science courses, do you prefer that ALL, SOME or NONE of the courses be offered in block sections, that is: long class session meeting once a week?

- 3 ___ All exercise science courses
2 ___ Some exercise science courses
1 ___ None
9 ___ No response

16. In terms of the scheduling of exercise science courses, do you prefer that ALL, SOME or NONE of the courses be offered in split sections, that is: short class sessions meeting several times a week?

- 3 ___ All exercise science courses
2 ___ Some exercise science courses
1 ___ None
9 ___ No response

17. Typically, is the MORNING, AFTERNOON or EVENING the best time for you to take classes, or does it not matter? (*Check all that apply*)

- 1 ___ Morning
2 ___ Afternoon
3 ___ Evening
4 ___ Does not matter
9 ___ No response

18. Typically, what day or days of the week are best for you to take classes? (*Check all that apply*)

1 Sunday
2 Monday
3 Tuesday
4 Wednesday
5 Thursday
6 Friday
7 Saturday
8 Does not matter
9 No response

19. Generally, when is the best time of year (fall, winter, spring, summer) for you to take classes? (*Check all that apply*)

1 Fall
2 Winter
3 Spring
4 Summer
5 Does not matter
9 No response

20. In your opinion, how can the scheduling of exercise science courses be improved to better meet your individual needs?
21. Is there any other comment you would like to make about the exercise science program at OCC?

"Thank you very much for your time and assistance. We sincerely appreciate your help."

APPENDIX G

GRADUATE FOLLOW-UP SURVEY

Narrative Responses

GRADUATE FOLLOW-UP SURVEY

Narrative Responses

Exercise Science & Technology Graduates, August 1989 - May 1994

Question 23. Do you feel that you have achieved your short term educational goal(s)? Please explain:

- I had a well rounded educational experience at OCC. As the teachers were knowledgeable and showed how their subjects can pertain to everyday life.
- Although the knowledge I received at OCC is directly related to my job, it is only a stepping stone to my career goals. My current job is not my career of choice.
- Transferring credits from OCC.
- Study group for ten weeks to take American College of Sports Medicine exam. Vicki Kloosterhouse was very positive. Home campus was on east side. At one time had to attend five different campuses.
- OCC has a high acceptance rate, as far as quality of education, with many companies in the area.
- All better paying jobs in my field of study required a minimum of a bachelor's degree.
- All classes pertaining to field were very thorough and conducted well.
- I felt it met all my needs at the time. I believe the instruction level was far above most colleges. I'm very proud to have graduated from this establishment.
- For the most part, the experience was excellent. My certification helped my company grow. There were a few teachers that were below par, two of them are no longer at OCC.
- I was just there to prepare myself for a four year college. I gained good basic knowledge for myself.
- I would have said "very satisfied", but much of what I learned to help prepare me for my job, I did on my own. I voluntarily spent extra months on my internships. I do feel, however, the support course helped a lot.
- The exercise science program under the direction of Vicki Kloosterhouse is outstanding. It is unfortunate that other staff members do not match her enthusiasm and expertise.
- Education at Highland Lakes (nothing like Wayne State - terrible).
- Most of the classes in the exercise science areas were excellent and made me feel prepared for my Cardiac Rehab Internship, and a position as an exercise specialist in cardiac rehab.

Question 24. Are you interested in taking other courses at OCC? If yes, what course(s) or program(s)?

- Cardiovascular related subjects leading to a degree.
- Business.
- College preparation.
- Health/Exercise programs. Educational seminars relating to field.
- Just courses in other fields to further develop my personal growth.

Question 25. We would appreciate any suggestions you have for improving OCC's programs, courses, or services. Comments please:

- The exercise science program should make it mandatory the students take Chemistry and Physics. Upon transferring, whether the student is interested in Sports Medicine, Exercise Physiology, or any other allied health field, these classes are a must.
- I was pretty satisfied with it. Nothing comes to mind.
- Just keep up the good work.

APPENDIX H

EMPLOYER SURVEY

Narrative Responses

EMPLOYER SURVEY

Narrative Responses

Q 3. Please briefly describe some of the specific job duties/responsibilities for employees in the exercise field?

01. Sports rehab - testing, exercise, patient care.
02. Working with cardiac patients, testing, leadership.
03. Aerobics instructors; weight trainers.
04. Exercise leader to conduct exercise at worksite; they provide weight training; all exercise personnel are sent to different corporations and provide exercise workouts with employees (Ford, GM, Chrysler employees).
05. The personnel conduct aerobic classes; we offer exercise workouts.
06. Sales department - recruiting new members; designing fitness programs; aerobic warm-ups; working with new members.
07. We perform workouts with new members; we offer aerobic classes; exercise trainer conducts weight training classes and water exercises.
08. Basic workouts with new members; sales is something we all do; they conduct aerobic classes.
09. Perform weight training; workouts with new members; conduct aerobic classes.
10. Exercise Physiologist - running Phase II rehab classes; conduct personal fitness classes; one-on-one training of patient (30 min. to 1 hr); do exercise consulting with patients; diagnostic testing on patients referred by doctors; perform stress tests; stress ECHO tests; go to hospitals two days per week to do Phase I education for patients in coronary unit at University of Michigan Hospital for heart surgery patients and educate and instruct them and hand out information folders.
11. Get patients to restorative feeding class, ambulate patients; range of motion; responsible for getting patients to exercise class; bladder control rehabilitation.
12. Help members with weight training; perform cardiovascular training; conduct aerobic classes.
13. Personnel performs range of motion; conducts exercise and movement of muscle exercises.
14. Instruct classes in step aerobics, high and low impact aerobics, and stretching; give instructions on how to use exercise equipment; we offer personal training in diet and exercise.
15. To be able to administer proper first aid when it is needed; they are to have basic background in anatomy and physiology; we would like to see some exercise physiology background in their education.
16. To recruit new members, and give tours of the club facilities for potential members; to assist in setting up personal workouts for members; using caliper testing to test their fat level; to teach aerobics to members, as well as follow up on individuals to see how they are progressing at the facility.
17. Set up exercise programs based on person's needs, body fat, limitations; conditioning programs; sales - writing membership agreements, contracts; general service during day, assisting clients with whatever they need.
18. Take people through supervised workouts; set up individual programs.
19. Physical therapy - range of motion, weight lifting, whirlpool, dif. exercise classes.
20. Cardiac rehab - must have a B.S. in Exercise Science; educate patients with heart condition about diet, exercise, what happened to them; help patients with monitored exercise three times per week; also, informal exercise classes; person to do stress testing - need some type of medical experience; must know arrhythmias, they are certified; must know about using the treadmill.
21. Conducting exercise classes and working with new members; aerobic warm-ups.

22. Health promotion - design programs for wellness/fitness; implement wellness/fitness programs (for 56,000 employees); measurement and evaluation of impact of programs; exercise consultants - work one-on-one with employees.
23. Helping with activities of daily living; fitness program, exercise; follow up with physical therapist assigned exercises, passive range of motion.
24. Training and placing personnel who are able to teach fitness and aerobics at various health clubs and corporate sites; aerobics instructors.
25. Develop individual exercise programs; aerobic classes; new members orientation; work re-conditioning program (for employees who are injured); office work.
26. Assist physical therapists; conduct exercise routines; help in office.
27. Therapists; therapist aides/assistants.
28. Physical Therapists - evaluate and prescribe treatment; Physical Therapists Assistants.
29. Cardiac rehab program; pulmonary rehab; exercises for stress testing.
30. Rehabilitation of post-surgical patients; development of exercise programs; testing - strength.
31. Teach clients how to use: cardiovascular equipment, strength training equipment; health screening.
32. Exercise physiologists; athletic trainers; aerobics; physical therapists.
33. Worksite wellness co-ordinator; work with cardiac rehab committees/volunteers; educate Michigan people about exercise; prepare slide shows/scripts for presentations; health promotion programs; nutrition programs.
34. Certified Occupational Therapist: works with dexterity of residents keeping fine dexterity movement, hands, fingers work; Certified Exercise Physiologist: works with lower body movement, walking, arm exercises, whirlpool, hydrostatic packs, rehabilitation, retraining residents, keeping residents mobile; Certified Physical Therapist: sees that residents keep mobile, conducts/presents bowel and bladder management programs; have staff of OT, EP, PT and Rehab Registered/Certified Nurse; contract out an additional PT and OT services.
35. Bachelor trained at two levels: more technical, taking patient history, prepping patients for testing (stress, ECHO, EKG, Holter Monitor); logging test results; typing test results; hook-ups; scanning tapes; cardiac rehab Phase II; ultimate responsibility patient contact; works with classes of six patients; educate; work with telemetry unit, read tests; proofread reports, stocking; Master's trained: more responsible for patients; do specialized tests; supervise tests; decide when tests need to be terminated; call CODE emergency; conduct emergency procedures; do patient follow-up; work closely with physicians.
36. Sales of memberships and equipment.
37. Bachelor degree: check stress tests; supervise cardiac rehab classes, Phase I and II; write exercise prescriptions; diet education; consult with patients; lead exercise classes.
38. Conduct Nautilus program; instruct aerobic classes; work with young, old, etc.; teach fitness classes.
39. Employs 40 Physical Therapists.
40. Activity therapist runs groups of patients in sports activities, other activities and outing exercises; helps individuals reacquaint themselves on becoming independent and to living on their own; as occupational therapist to teach skills; budgeting; menu planning.
41. Physical Therapist or Assistant Physical Therapist - basic patient care; treatment; planning; checking patients progression.
42. Set-up for classes (music, equipment); teach classes hi/low intensity, low impact, step circuit classes; attend staff meetings; listen to clients' problems/concerns and take these problems to managers.
43. Present safe and effective exercise classes - varies with type of clientele; Step training; water training - young, old; lead exercise classes; sales contact different facilities; review and train instructors; some office, typing, budget work.
44. Director: plans activities, classes; designs incentive classes; prepares budgets; monthly reports to Board

of Directors of Fitness Center (non-profit facility of Ford); does payroll; marketing; prepares news letters. Fitness Supervisors: teach classes of different levels; instruct on use of equipment, fitness testing; blood testing (pressure); screening monitoring pool aquatic exercises; teach aerobics; do scheduling; do equipment maintenance; cleaning; keep records (work split shifts - early morning, late evening hours).

45. People who do stress tests, Exercise Technicians; Exercise Physiologist, conduct cardiac rehab classes.
46. Director: takes blood pressure, heart rate, body fat testing, weight tests, devises programs for instructors to present to classes; Exercise Employees: conduct classes on exercise.
47. On physical education side: teach classes, handle children, oversee/coach yoga, baseball, basketball; Fitness Trainers: Certified Personal Trainers supervise who are exercising and who are using machines; locker-room attendants; aerobics instructors; water exercise instructors.
48. Perform exercise tests; lipid profiles; measure body fat; risk profiles; bike tests; set up exercise programs; weight loss counseling; teach classes in lowering body fat; stress management and incentive programs in weight loss; lowering cholesterol; ergonomics.
49. Athletic trainer: evaluate nature, extent of injury and determine level of fitness; recognize deficiencies in posture; range of motion; document work; do closed kinetic chain exercises; and resistance exercise with clients.
50. Athletic trainers lead exercises; consult to schools.
51. Monitor exercise programs for specific muscle groups; strengthening and flexibility under the supervision of a certified physical therapist; work with specific body areas and exercise programs.
52. Work with patients (with exercise physiology) to fill doctors' prescription programs; evaluate orthopedic conditions, injuries, surgeries; identify problems; set up treatment programs; oversee programs; and re-assess programs.
53. Address general physical reconditioning as well as occupational therapy; monitor progress of people in program; re-assess progress of people in program; perform strength tests.
54. Teach water aerobics; monitor, tailor programs for different age groups.
55. Exercise Specialist - Cardiology: perform preventative and rehabilitative program prescriptions; design preventative and rehabilitative programs; lead exercise programs both on and off site; perform EKG tests.
56. Exercise instruction; physical evaluation; set up programs at work-site fitness centers.
57. Member orientation; advising on fitness and nutrition; leading classes in aerobics, water exercises; personal trainers: devising individual fitness programs for members.
58. Provide wellness, fitness classes through parks and recreation departments and corporations; go to sites, teach classes (aqua exercise, aerobics, etc.).
59. Fitness trainer: design programs around evaluations of clients.
60. Personal training - setting up individual programs for clients; gym instructors - helping clients on the floor; service manager - testing and measurements; giving orientation.

Q 5. What are the reasons for hiring employees in the exercise field?

c) Other:

16. The employees have been developing programs, and have been taken off the floor to finish them; so we need new employees to work on our exercise areas; we are expanding due to programs.
18. Need people with knowledge in field.
24. There is a big demand for aerobics instructors.
33. Need person to work with committees on exercise, fitness education, develop and implement additional programs, assist and work with volunteers.
39. Striving to develop better quality employees - employees who are more stable, more flexible.
43. In business for 12 years; present 250 classes in Detroit area; international corporation; predominantly in

Detroit area, from Michigan-Ohio border to Lansing; have classes in Ohio, Indiana, New England and Sweden.

- 56. Short-term only - for a summer program.
- 60. Always looking for qualified people.

Q 7. *What kind of problems do you encounter?*

- 14. We have a lot of people who apply for our positions, but they are not necessarily trained instructors; they do not have the required experience; also the YMCA does not pay a lot.
- 16. Many employees do not have the hands-on training with equipment, etc.; they have the educational requirements but lack real hands-on club experience.
- 17. Don't have the desire to help people - lacking in service ethics.
- 22. Company policy to hire internally; only hire part-time people from outside.
- 23. Don't want to work afternoons.
- 24. They have knowledge but don't know how to present it well.
- 26. Not enough applicants.
- 28. Even physical therapists don't have enough training and experience for evaluation.
- 29. Lack of knowledge of EKG; people don't want to work - transition from school to real life; lack of commitment.
- 31. Weight lifters who think they know everything and can't afford a college degree.
- 39. Shortage of trained people in profession; not enough "right" people for "right job."
- 40. Occupational Therapist Assistant - not enough of them; can't get anyone in to interview; not enough people trained in that field.
- 41. Finding people to meet hospitals' criteria - Physical Therapist Assistant/associate degrees; P.T./bachelor degrees; and Michigan license.
- 42. Finding step instructors, they are scarce and hard to find.
- 44. No knowledge of the human body; no anatomy training, no course-work on anatomy.
- 47. People are either over-educated (qualified), or under-qualified; the over-educated do not want to accept the money that we are able to pay for entry level positions.
- 48. Do not have trouble finding exercise trained people - do have trouble finding people with experience.
- 53. Have trouble finding someone who has credentials to do testing; if not certified, have to work under supervision of a registered supervisor - this causes problems, cannot work independently.
- 60. Have classroom knowledge, but can't relate knowledge to person they're training.

Q 9. *What do you find to be the area(s) in which entry level personnel are unprepared for employment?*

- 09. Weight training.
- 10. Lacking in commitment.
- 14. They do not have enough experience in the field to be in the position.
- 16. Lack of hands-on training.
- 17. The employees don't want to help clients; turnover rate is 20% or 30%.
- 23. Lack of experience with traumatically brain-injured.
- 24. Totally grasping the knowledge only comes with experience.
- 27. No high school or GED.
- 28. Experience.
- 29. EKG.
- 30. Expectations are for hands-on treatment and some applicants not prepared.
- 40. Look for experienced people.

42. Lacked confidence; hands on experience.
43. May be knowledgeable, able to do paper work, but not able to convey knowledge to students/public or lead classes; not able to utilize music.
44. Lack creative/artistic ability - need to prepare bulletin boards within facility; do not know how to show people how to exercise; need more hands-on experience in working with people.
47. Inexperienced in working with people in a service industry; unable to interact with people but have good credentials.
51. Applicants have not had any exposure working with injured, disabled or physically or medically compromised people; not familiar with medical issues.
53. Industrial rehabilitation is a new field; rarely find people who have experience and training in the field.
55. Some have education, but no hands-on experience; some have experience, but no professional schooling.
57. Lacking in hands-on experience; most don't possess enough motivational and teaching skills.
60. Need more knowledge in anatomy and physiology.

Q 10. What is the minimum educational qualification required by your company for entry level exercise personnel?

4) 4 year degree:

01. Exercise science.
02. Bachelor of science.
10. Exercise science.
12. Exercise physiology.
28. Accredited physical therapy program.
30. Athletic training.
34. Certified occupational therapy, certified physical therapy, rehab licensed nurse.
35. Entry level/no experience.
39. Physical therapists; kinesiologists; athletic/education trainers; massage therapists.
41. Physical Therapist Assistant; Physical Therapist + Michigan license.
44. Exercise science.
45. Exercise technology.
48. Exercise science or physiology.
49. Athletic training; sports medicine.
52. Physical Therapist or Certified National Athletic Trainer.
55. Exercise Physiologist plus one year experience in cardiology.
56. Any health related field.

5) Other:

01. Master's degree.
17. Just have background in sports and fitness; a lot of their employees are former clients who are really into health and fitness.
18. Experience is a factor, too; 4 yr. degree is often required for service managers.
27. Certified Physical Therapist.
38. Training and experience in a municipal government department, because no national standard has been set, cannot discriminate because of certification, can be preferred, not required.
40. Associate degree in occupational therapy.
46. Must show evidence that they are taking classes at a good school, classes in anatomy, back work, physiology, weight training.
50. Physical Therapist Assistant or Certified Occupational Therapist Assistant (associate degree).

51. Physical Therapist Assistant (associate/bachelors); Physical Therapist Aide (no specific requirement).
53. Physical therapy; kinesiology; Certified Occupational Therapist Assistant - COTA (associate); Physical Therapist Assistant - PTA (associate).
54. AEA - American Educational Association Aquatic Certification.

**Q 11. Which of the following certifications do you require or prefer for entry level exercise personnel?
e) Other:**

01. ACLS (Advanced Cardiac Life Support).
03. Certified in aerobics instruction.
06. There is no certification required.
08. Aerobic certification.
09. Aerobic certification.
17. Company's training class.
19. State certified Nurse's Aide.
20. ACLS.
21. No certification required.
25. AWHP.
28. Graduate of program accredited by Physical Therapists Association.
29. ACLS.
31. National Academy of Sports Medicine.
32. CSCS, AEA (water).
34. Certified occupational therapist, physical therapist, and rehab licensed nurse.
35. ACLS.
37. ACLS.
40. Certified occupational therapist assistant.
41. Michigan license.
42. Certified with Aerobic Fitness Association of America.
45. Training with doctors; conferences.
49. NATA - National Athletic Trainer Association.
50. Certified Athletic Trainer; NATA; COTA.
52. NAT - National Athletic Trainer; state certification for PTs.
54. AEA - American Educational Association Aquatic Certification
55. Cardio-Science Exercise Physiology.
60. National Academy of Sports Medicine, NSCS, IDEA, AFAA.

Q 12. Do you assist your exercise employees to improve their knowledge and skills in any of the following areas?

c) Other:

01. Help to prepare for certification.
02. Lectures.
05. ACE offers seminar; we have CPR training and seminars.
06. We have a two-week training for all new employees.
07. Fitness USA has training classes and seminars for all employees.
08. We have power training classes for all new employees.
09. We train them in any area they need help in.
10. Through the University of Michigan, has some reimbursement policy.
11. In service for PT (physical therapist), OT (occupational therapist), and speech departments, Novacare;

outside seminars.

12. Basic training we offer for all our employees.
13. We train all personnel in CPR and movement of muscle exercises.
14. We train employees for our specific programs, but they are not given certification.
15. Sometimes staff from cardiac rehab come in to give talks; we have our own in-service training; employees gain on the job experience as well.
16. An orthopedic surgeon has been giving lectures to staff; as well as we train them at the facility before they start the job.
17. Formal classes for employees - can be 2-10 weeks, depending on the job they hired in for.
18. Have own training classes - these are about a month long; can go to seminars or anything else that might help them.
19. For Nurse Aides - each department orientates new people; in-service training sessions given periodically.
20. Have person leaving position train replacement (2-3 months); seminars (2 yr. required)
21. We offer training for all our employees.
22. Worker/training workers (on the job), not formal.
23. Training in behavioral problems and data collection.
24. Four times a year workshop (full day); deep current with exercise trends, body placement, position; provide material on basic physical nutrition, etc.
26. Range of motion, general health and fitness etc. (done in "in-service" sessions)
28. In-house complex orientation.
29. Staff training; outside training (new equipment, new procedures); in-services conferences, seminars.
30. Continued education; attend conferences.
31. ACE training manual; ACSM manual; seminars.
32. Continuing education in-service.
37. Seminars; conferences; \$1,000/yr. tuition assistance; internship program.
38. If person belongs to a union, if s/he wants to take a class, and if the budget allows, the city has to give tuition reimbursement.
40. Offer paid assistance to attend seminars in field.
42. Company pays to get employees certified (employees are required to keep certification - company pays for part of this); employees are paid to attend meetings and workshops.
43. Depends per personal situation; have Fitness Factory classes and workshops.
51. Company evaluates courses to see if it is a good course, if so, give tuition assistance.
56. Quarterly seminars based on a needs-assessment evaluation of employees; sometimes contract instructors based on need.
57. Seminars; workshops; using manuals and self-testing in various aspects of exercise techniques: fitness, motivational techniques, etc.
58. Three times a year - workshops in various areas (nutrition, working with elderly, new moves for aerobics - many topics).
59. Employees attend seminars (sponsored by ACSM, etc.); they come back and teach what they have learned.
60. Seminars; workshops; three levels of certification that instructors are required to pass.

Q 14. *Medial Assisting Option: g) Are there any other areas in medical assisting not listed that you consider to be important?*

20. Knowledge of medication.
39. Knowledge of Medicare/Medicaid reimbursement trends.
56. In general, knowledge in this area is helpful, the specifics would depend entirely on the area the

employee would be working in.

60. Pharmacology.

Q 15. Gerontology Option: e) Are there any other areas in gerontology you consider to be important?

15. The insurance area is very important, people need to know insurance policies for older patients, such as what policy covers what procedures; also a good background in medication would be helpful.
23. Therapeutic recreation (individualized)
28. Social issues and insurance funding.
30. Function of exercise concepts.
32. Exercise contra-indications in exercise for aged; orthopedic concerns.
35. Psychology of younger person working with older clientele; staff population is always younger than patients.
39. Alzheimers disease knowledge; how it affects people; how to work with this population.
52. Sociology; life cycle education.
60. Exercise for healthy seniors (most programs concentrate in special-needs geriatrics, whereas the larger population is healthy).

Q 16. Business Option: e) Are there any other areas in business you consider to be important?

10. Ability to communicate.
15. Work ethics in business.
17. Communications and marketing skills
20. Marketing.
22. Should understand the mechanics of how a corporation works.
29. Basic budget skills; understanding numbers.
30. Economics.
32. Facility design and development.
33. Management skills; interpersonal skills; know how to run a meeting.
34. Billing knowledge; knowledge of Medicare and Medicaid (and its rules and regulations).
35. Understand what channels to go through for problem solving; how to be diplomatic to bring problems to co-workers an supervisors attention for solving.
36. Medical insurance reimbursement issues.
42. Business marketing.
44. Know legal aspects - lawsuits do arise; know insurance laws/implications.
48. Knowledge of budgeting.
54. Ability to design physical fitness programs for employees; ability to implement physical fitness programs in the work place.
56. Promotion; marketing; advertising.
58. How to charge for services.
60. Liability (personal and business).

Q 17. If a prospective employee came to you holding an associates's degree in exercise science with one of these additional concentrations, would that person have an advantage over someone who holds only the base degree in exercise science? Why or why not?

01. Yes. If they want to advance, it would be an advantage.
02. Yes. Better apt to work with current clientele.
03. No. Not necessary.
04. No. The job would be the same unless the owner decided to change things in consideration of that

- degree.
06. Not sure. They have the knowledge, but experience is more important.
 07. No. We do not have an educational requirement; all new employees are instructors.
 08. No. We have equal job opportunities.
 09. No. We don't have an educational requirement.
 11. Not sure. Currently we don't have an educational requirement.
 14. Yes. They would be a benefit to our programs; with a business background they can help us in marketing; with a gerontology background, they can set up program for older people.
 15. Yes. With these additions they will be able to service our clients better; we have a wide range of people her, from the young athletes to the elderly.
 16. No. But in 5 years, it will be extremely important; the baby-boomers will be aging and will require more care.
 17. Yes. Businesses an important area and they'll be a step ahead of other employees; they are using computers already at their location.
 18. Yes. More product knowledge and education a person has in general, the better.
 19. No. Don't really hire outside people to begin with - try to promote from within and if none of the present employees is qualified or wants the job, then it is advertised and they hire a new person.
 20. Yes. Shows they have commitment to the profession.
 21. Yes. Do they have experience in that area as well? If so, they would be at an advantage.
 22. Yes. They would get up to speed faster in becoming a contributing member of team.
 23. Yes. We are expanding into geriatrics.
 24. Yes. With the population aging, gerontology especially will be an advantage.
 25. Yes. If we expanded our services, we would already have someone knowledgeable.
 27. Yes. Less need to train.
 28. Yes. If programs expanded to include wellness programs, i.e. not money making activities.
 30. Yes. Indication that individual could be used in other areas not just one position.
 31. Yes. Catering to older age group is where the population growth is going to be.
 32. Yes. Looks better on paper; true entry level is 4 years; too many 4 year grads to consider a 2 year grad, unless 2 year grad is serious about pursuing a 4 year degree.
 33. Yes. Any additional expertise above basic degree is welcome; management skills are important.
 34. Not sure. Use all hire only 4 year degree staff; if entry level, higher training would be important; if experienced, experience would rate higher than higher training.
 35. No. Have to look at a person as a whole.
 36. No. We do most of our own training - have an extensive training program.
 37. No. Usually require a B.S. degree.
 38. No. Additional concentrations may make a person more marketable; if concentration makes a person over specialized, it may limit one's employment possibilities.
 39. Yes. Nice to see expertise in a specific field; can employ them to focus on a targeted group to work with.
 40. Yes. In terms of performance of duties, all additional general knowledge helps.
 41. No. Needs associate degree in physical therapy first and foremost.
 42. Yes. The more education people have - able to work with more clients; more valuable to employer.
 43. No. Not in getting into company; may pay off because employee will be qualified to teach more classes, therefore able to earn more money.
 44. No. Require a Bachelor of Science degree.
 45. Yes. Blood work and CPR.
 46. Yes. If the gerontology or business in addition to the basic exercise science requirements.

47. Yes. Would give me confidence that this person had more knowledge than other applicants; Jewish Community Center has many gerontology clients - would likely hire that person over others.
48. Not sure. More depends on past experience.
50. No. Hire only Physical Therapist Assistants and Certified Athletic Trainers.
51. Yes. Implies that individual would have greater insight on aging population from a physical, mental, emotional approach and how to approach problems and solve them.
52. Yes. Offers more exposure to a variety of situations; offers mobility to move up to (with more education) a professional field or another field.
53. Yes. Because of the company's orientation, need this concentration (business option) to serve corporate clients.
54. Yes. Business concentration is a big component in the exercise field in doing budget planning; planning revenues; that knowledge is a vital and important area for the way recreation programs are expanding.
55. Yes. Medical assisting would provide a heavy concentration in the area we are looking for.
56. Not sure. The industry is constantly evolving; the more well-rounded and knowledgeable a person is, the better-off they will be.
57. Not sure. Depends on specific needs at the time we are hiring.
58. Yes. Gerontology; planning to expand - more seniors classes will be needed.
59. Yes. The broader your knowledge, the better.
60. Yes. They would be easier to place, the more knowledge the more versatile a person is.

Q 18. Are there any other specific techniques you would like your entry level exercise personnel to have learned?

09. Some basic weight training techniques.
11. CPR and basic emergency procedures.
13. Range of motion and movement of muscles.
15. Time management skills, and excellent interpersonal skills.
16. I'd like college programs to start requiring internship programs for exercise science majors.
17. No other techniques needed.
21. Exercise leadership and first aid is always important.
23. Practical experience with disabled or aged or children (experience related to the specific area in which they would like to work).
26. Range of motion; rehabilitation exercises.
27. The more the better.
28. Teaching patients do's and don'ts.
31. Nutrition - knowledge of fad and quackery; weight loss; more than book smart - need to know machinery, involved personally with exercise.
32. Understanding special populations - eg. diabetics, orthopedics, overweight.
35. Personal habits; attitude in working with specific clientele.
37. ACLS certification most important.
38. No, only hire experienced people; look at previous employment rather than education.
42. Have an ear for music - be able to count beats and put patterns together; ability to get along with other employees.
43. Creative movement; ability to use/react to music.
44. Able to take blood pressure; interpersonal skills; ability to create bulletin board and news letters; graphic computer skills.
47. Ability to motivate people; able to get people to listen to them; ability to (or know techniques) to deal

with (relate to) all mentalities.

48. Need more background on health promotion (wellness, healthful living habits), including weight loss programs; health screening; stress management.
54. Business background.
55. Arrhythmia monitors.
57. Ability to interpret the needs of the client; ability to make a presentation.
58. Knowing how to motivate people.
59. No, we watch workouts to see where they are lacking, and train them accordingly.

Q 20. Are there another personal skills you would like your entry level exercise personnel to have?

03. Communicate well with their classes.
15. Being able to motivate others.
17. Have to have a sense of individualism - helpful to other people; sensitive to clients.
18. Ability to get along with people.
19. Just ability to get along with people.
20. Devotion to job/commitment.
23. Ability to empathize; patience.
28. Goal orientation (purpose for self); time reference.
31. Cheerful; outgoing; concern to help people; a motivator.
32. Communication, relating to individuals.
38. In future, may look for a Spanish speaking employee.
44. Enthusiasm about what one is trying to get across to people; motivate people.
45. Ability to get along with people; kindness.
53. No, if I found someone with all those skills, they would be great!
56. Goal-setting (planning and development).
57. Presentations (public speaking).

Q 21. What is the single most important quality or characteristic you look for when you are hiring exercise personnel?

01. Social skills, people patient care.
02. Personal ability, personability.
03. Fit.
04. Good personality and experience.
05. Experience.
06. Exercise background.
07. Outgoing personality.
08. Experience.
09. Outgoing personality; basic exercise training.
10. Good personality.
11. Commitment.
12. Good personality.
13. Experience.
14. Interpersonal skills.
15. Interpersonal skills.
16. They need to love people.
17. Sensitive to others' needs and have a fitness background.
18. #1 Product knowledge; #2 Personality.

19. Good attitude.
20. #1 Education; #2 Personality.
21. A good personality and job experience.
22. Ability and willingness to learn.
23. Humanitarian heart.
24. Good communicator.
25. Ability to work without supervision and good interpersonal skills.
26. Leadership; enthusiasm.
27. Ability to work well with others.
28. Experience.
29. Teamwork.
30. Fit into team skillwise.
31. Sincere desire to eagerly help someone.
32. Between people skills and education.
33. Professionalism; knowledge.
34. Know what their job entails; good with residents and people; able to go job with minimal assistance; good with public in general.
35. Initiative.
36. Knowledge of exercise; outgoing personality; able to sell self; confidence, body language; sales experience.
37. Ability to work as a team member.
38. Knowledge, skills and ability (ksa).
39. Flexibility to change - able to jump from working with ethnic background people to American people, from children to gerontology people; know a little about a lot of things.
40. Initiative; ability to work well as a team player.
41. Interpersonal skills
42. Is the person an extrovert? have a positive attitude? - both are valuable traits.
43. Motivation; ability to lead.
44. Ability to communicate; knowledge.
45. Personality.
46. Knowledge of the body (anatomy); personal skills - able to talk/deal the people.
47. Personality; be approachable; appearance.
48. Communication skills.
49. Flexibility to do different jobs: work irregular hours and go to different sites.
50. Academic background; professional degree.
51. Ability to follow directions; leadership.
52. Dependability.
53. Ability to motivate; ability to interact appropriately with clients.
54. Ability to communicate well with people; human resources skills; teaching ability; ability to improvise and follow through with minimal supervision; make decisions in the absence of supervision.
55. Leadership; independence.
56. Positive attitude.
57. Empathetic personality.
58. Vivacious personality and reliability.
59. Outgoing personality.
60. Ability to motivate others.

Q 22. What related advancement opportunities are available for employee in exercise science?

01. Wellness programs, corporate fitness.
02. Community health and wellness; coordinator.
03. None.
04. Management opportunities are always available.
05. Manager positions; personal training; and owning your own business.
06. Personal training and opening or starting your own business.
07. Floor manager; assistant manager.
08. Manager.
09. Manager of the gym.
10. Supervisor; manager; or director of department.
11. Supervisor and manager position.
12. Floor supervisor and manager.
13. With a degree.
15. We really do not offer too much advancement; maybe they could become an exercise coordinator.
16. They may start to work with a personal trainer and make their own programs; we love new ideas for our club.
17. Can go into management; they have different divisions: corporate sales, personal trainers, etc.
18. Can advance to club manager; from there can go to corporate offices.
19. No advancement - unless the supervisor retires or drops dead.
20. Small office with two physicians and nine employees; can't really advance but can add to their position by additional duties; duly compensated for this.
21. Management positions.
22. Start part-time fitness instructor; full-time health promotion specialist.
23. Assistant Manager; Manager; Medical Co-ordinator; Vocational Co-ordinator.
24. Instructor; director; area director/manager.
25. Employees run the centers they are assigned to; not much room for advancement or increase in pay.
26. At this facility, none without additional degree (eg. physical therapist).
27. Training for Certified Physical Therapists.
28. Wellness programs and athletic medicine based on expansion.
29. B.A. to M.A. - pay increase, position increase.
30. In-house training.
31. Club management; fitness director; personal trainer.
32. Depends on person's initiative.
33. Program consultant; director; manager of programs in Michigan; move to national office located in Dallas.
34. There are opportunities for both full-time employees and contracted employees.
37. With master's degree can move to supervisor or to another lab.
38. Get a raise; have more classes added to workload; very limited.
39. Very good; can be lateral or vertical to management.
41. Variety of career ladder promotions; can learn clinical specialty - move up because of that.
42. Become a personal trainer; company pays for additional training; gives perks; gives bonuses of \$100.
43. Become an area group leader; run own company; manage a club; become a personal trainer.
44. Within Ford, nothing.
45. Assistants to exercise Physiologists.
46. Able to become a certified personal trainer; the Jewish Center is open for advancement; if one devises a program, that person presents it to the supervisors, then may be able to become a branch, group leader,

etc, if approved.

47. Become full-time employee with health, and vacation benefits; become a supervisor; center has many advancement opportunities to director of center.
48. Little within Michigan National.
49. Up to management (large firm), with added education.
50. With additional education.
51. Field limited without further education.
52. With continuing education, ability to move to a different field.
53. Large corporation (about 155 employees), some advancement (with additional education) may move to a supervisory position.
54. Can move into therapy programs; can move from part-time to full-time.
55. Not much - have only one level of Exercise Physiologist.
56. Entry level; site manager; co-ordinator.
57. This company has a finite management structure - little room for advancement.
58. No advancement as such, but more diverse responsibilities, higher wages.
59. Few advancement opportunities; must specialize and be very good to earn more.
60. Instructor; personal trainer; service manager.

Q 23. *Would those opportunities be changed if the employee holds an associate's degree in exercise science with a concentration in one of the areas discussed earlier?*

01. Yes. Higher initial placement.
02. No. Hard pressed to hire someone with only an associate's degree.
03. No. Basic position is narrowly defined.
08. No. We offer equal job opportunities.
12. Yes. They would have more knowledge.
13. Yes. Director or administrator positions.
14. No. It wouldn't make much difference; the only other opportunities would be dealing with craft schools, and nursery school children.
15. No. Even with the other concentrations we only have limited jobs available; it's really a personal choice if someone wants to improve.
16. Not sure. It depends on the needs of the club; then with a degree; though we will send a cardiac patient to someone who has knowledge in the medical field.
17. Yes. Could be promoted faster but really the emphasis is on employee's job performance.
18. No. Being able to run a business was more important than having just the degree; meaning a piece of paper doesn't necessarily make you a good manager.
20. Yes. Shows that they're serious about job and open to more duties and areas.
22. Not sure. With business, possible to move up in other parts of the company.
23. Yes. In that particular segment of business.
28. Yes. Medical Assisting wouldn't.
29. Yes. Less training.
30. Yes. Wide spectrum - more useful.
31. Yes. Aging is growth area.
32. Yes. Important in field (except Medical Assisting would be a waste of time).
34. No. Hire only 4 year degree.
40. Not sure. A bachelor's degree would rate higher than a concentration.
41. Yes. An employee with additional knowledge is always looked on more favorably.
42. Yes. The more one knows, the better.

- 43. Yes. Create more opportunities to teach more people.
- 44. No. Once they get into exercise physiology, medical assisting is not used.
- 47. Yes. It would be easier to advance with added skills/knowledge.
- 54. Yes. More education is always beneficial.
- 58. Not sure. Maybe gerontology - more programs could be developed for seniors.

Q 28. Are there any other comments you would like to make at this time?

- 12. We have employed several interns from OCC and they are more knowledgeable in the field.
- 16. I hope to see internships with exercise science programs from the college; I'd love to have an intern in the field work here.
- 17. Communication is very important; employee has to be a good listener and be sensitive to needs of client.
- 22. I strongly support internship programs; learning by doing is the best way.
- 24. A lot of people are being trained; they have degrees, but can't find good paying jobs in this industry.
- 28. Involvement in trade associations in regard to accreditation.
- 32. OCC has a sound program overall.
- 34. There is a great need for schools to add a concentration in gerontology; there is not enough of that training "out there."
- 44. Ford will be closing the site July 15, 1994; Ford is setting up fitness centers at most sites throughout the country; they will contract out the services; they are considering Johnson & Johnson, Fitness Systems, and Med-Sport at University of Michigan, Ann Arbor.
- 47. Am certainly an advocate for the program; I know that, when Vicki sends over a student/graduate, nine times out of ten they will be very sharp.
- 48. I am impressed with what I see from OCC's program; the training is similar to a four year program but the students don't have the pre-requisites in general education that a four year graduate has.
- 49. Designing a work conditioning program - may be hiring for this in future; the concentrations of medical assisting, gerontology and business may help in that program.
- 50. Do not see employment possibilities getting any better; with the onslaught of managed health care, it will get more difficult; Physical Therapist Assistant can be certified (school is certified); Michigan does not have licensing of PTA, but Illinois and Indiana do.
- 51. Good luck with the program.
- 56. Many students from OCC's program are very qualified, even go on to get ACSM, but can't be hired because of company policy (must have four year degree).
- 58. From my personal experience, I know OCC has an exceptional exercise science program, it's highly evolved and the classes are very in-depth.
- 60. OCC should make every effort to stay current; the field is changing rapidly.

APPENDIX I

STUDENT SURVEY

Narrative Responses

STUDENT SURVEY

Narrative Responses

Q 5. *Has the coursework you have taken in exercise science at OCC been helpful to you in your current employment? How has it helped, or not helped?*

- 03. Yes. So I know how my diet was wrong and how to fix it. I work in a chocolate store so I needed to really learn new eating habits.
- 20. Yes. They enable me to set up programs for exercise, hold health fairs, setting up a wellness library, etc.
- 21. Yes. After taking the course I can relate to the medical charts better. I now understand what I am reading.
- 37. Yes. It has helped me take better care of my body and as a personal trainer.
- 50. Yes. The job requires running after a toddler. It helps in meal planning too.
- 57. Yes. It gave me information on preparing health food for kids.
- 73. Yes. I made me more aware of different health ways of living and proper types of food to eat.
- 79. No. It has not been applicable to any situations as of yet.

EXR MAJORS' RESPONSES ONLY

- 05. Yes. Trained in CPR - she now knows what to do if someone in the restaurant is choking.
- 07. Yes. The training program at Vic Tanny was easy for me. The knowledge I got from OCC helps me daily with my clients.
- 31. Yes. I am now more knowledgeable in the medical field. When a customer comes in or calls with a question, I am now able to understand their questions and answer them.
- 34. Yes. It has given me a better understanding of the nutritional aspects of training/conditioning.
- 45. Yes. Got my certificate.
- 47. Yes. It is given more knowledge to me in the field of health and exercise. a lot of my questions concerning health and exercise were answered in the OCC Exercise Science program.
- 59. Yes. Working with middle aged people and people with medical problems and courses covered these areas.
- 63. Yes. It has provided me with the knowledge to open my own health club.
- 66. Yes. It helped it organizational matters.
- 68. Yes. I can apply the knowledge I have gained at OCC in my current job.
- 70. Yes. I have only taken Exercise Leadership. It has helped me gain leadership skills which I use teaching aerobics.
- 72. Yes. It has given me background in fitness and exercise.
- 78. Yes. Basic knowledge of body mechanics, nutrition, how to put together work-out programs for people.
- 82. Yes. I am more knowledgeable in exercise physiology. Now my employers really respect me because I know things they don't They ask me questions about exercise and I can answer them.
- 84. Yes. To avoid on the job injuries.
- 90. Yes. The courses I took helped me get my job.
- 94. Yes. The classes were directly related to the use of the body and exercise. I can relay what I have learned to my clients (the people I train).
- 98. Yes. It helped teach me about health and the body and also how to work with others on a one on one basis.

- 104. Yes. The courses I have taken have helped me understand how to train people better. Also I know more about nutrition. I use the skills I have learned at my job daily.
- 109. No. I already knew the knowledge. I took the classes to see what they were like. I am not taking the program anymore because it was not going to be beneficial to me.
- 114. Yes. I already worked in the field but I needed more knowledge specifically on how to put programs together.

Q 6b. What are some of the typical duties that you perform on the job?

- 03. I work the cash register and I sell chocolate.
- 21. I analyze medical charts all day.
- 37. Fat testing. Design a fitness program. Heart rate.
- 50. Chasing a toddler, recreation, meal preparation.
- 57. I supervise kids, prepare meals, playtime.
- 73. Servicing food, totalling bills, carrying trays, cleaning, running around a lot.
- 79. Answer customers' questions, basically I try to sell exercise equipment.
- 97. Serving customers, clean up.

EXR MAJORS' RESPONSES ONLY

- 05. Serving, cleaning etc.
- 07. Giving orientations. Give information on diet, exercise, etc.
- 31. I am dealing with diabetics a lot. I answer the phones. Also, we do training on medical equipment. I help with setting up medical programs.
- 34. I train law enforcement officers in nutrition, conditioning, fitness, etc.
- 45. Instruction of aerobic classes.
- 47. I train clients on exercise equipment. I sell nutritional supplements. Also I help set up individual exercise programs for people.
- 59. Educate people on exercise, nutrition, lifestyle changes, behavior modification. Motivator and support system for people who hire me as a personal trainer and haven't really exercised before.
- 63. Memberships, supervising workout room, personal training.
- 66. Teaching, proper form/technique for exercise; motivator "butt kicker".
- 68. Exercise with in patients just out of surgery, some patients are four weeks out of surgery.
- 69. I lead classes in aerobic work outs. I answer questions people may have on a particular step or exercise.
- 72. I will help a person achieve their health goals by diet and exercise. I teach people how to use exercise equipment.
- 78. EDS - exercise consultations, helping people put together exercise programs, investigating companies that might provide EDS with exercise services. K-Mart - lifting and carrying. Home Improvement Department.
- 82. I do fitness testing. I bring up health proposals. I run the fitness center and coordinate health walk-a-thons.
- 84. I drive a high-low, lift, stock and do some merchandising (setting up products for display at Sam's Club)
- 90. Monitoring heart and blood pressure and conducting an exercise program.
- 91. I start my class with a slow exercise program for beginners and a faster program for more advanced people.
- 94. I teach about health and keeping the body healthy. I keep people informed on the risk factors of heart disease and how they can prevent it. I pay special attention to the personal needs of my clients; such as

setting individualized exercise programs and nutrition requirements they are to follow.

98. Get players in shape. Recruiting players.
104. I train people on exercise equipment. I show new members the club facilities.
109. I teach aerobics. I counsel people on exercise and nutrition. I am a personal trainer. I teach roller blading and prepare fitness evaluations for people.
114. I teach fitness classes in places like corporate offices, community centers and clubs. I organize programs for specific groups - young people, seniors etc.

Q 7. How do you plan to use the knowledge and skills gained in your exercise science courses as OCC in the future?

02. I'll use it in my personal life. I took Exercise and Stress Management. I'm already exercising more.
03. I'm giving a speech on diet and exercise in a class tomorrow. Also, I have learned to change my lifestyle by eating right and exercising.
08. Personal growth.
10. Will try to stay in shape and eat healthy.
11. Career - medical and for personal growth.
18. My personal development.
20. I would like to own my own business, maybe a fitness facility.
21. I will use the knowledge personally in my life by eating right and being more physically active.
22. For personal growth, to share knowledge with friends.
23. I am going to try to be healthy by eating right and exercising more in the future.
27. By applying what I learned in exercise and diet. To better myself physically.
30. In the future I will use the knowledge I have learned to improve my exercise work outs and diet. I only took the course for personal reasons. I work out every day. I took Diet and Exercise.
35. For my own personal use and development.
37. As a personal trainer.
38. For my health and personal development.
40. My personal use.
42. Personal use.
43. My personal use.
44. I practice what I learn; personal health/development.
46. For personal reasons. I have an ulcer and since I started exercising it has not bothered me. I will keep exercising in the future as well as keep up my nutritional eating habits.
49. I am going into athletic training so I am sure I'll definitely be using the skills I have learned in Exercise Leadership.
50. To try to stay healthy, exercise and eat right.
52. Person growth reasons.
53. Personal use.
54. I plan to become a nurse, possibly for cardiac recovery patients.
57. I prepare better food for my family and help keep them in shape.
58. I am trying to apply them every day. I am trying to lose weight, maintain my health and am encouraging other family members to do likewise.
60. Personal trainer or get further degree in sports medicine or physical therapy.
65. Future education.
73. Just to live healthy.
74. By eating better, proper nutrition; improve my personal exercise regimen by utilizing proper techniques given by instructors.

75. I might go into sports medicine as a career. I am thinking about a 4 year degree in this from another college.
76. I just want to maintain my own physical health and keep on exercising.
77. Just to keep health and stay in shape.
79. At first thought I would go into sports medicine as a career but I have given up on that idea. I will just use the information to maintain my own health.
85. Just for my own personal improvement. For my own health and well being.
87. Raising my children; for proper nutrition and diet.
89. I would like to do personal training.
91. I would like to be a personal trainer.
93. I plan to go on to a 4 year university.
95. After going through the water aerobics course, it increased my level of exercise. I will be more fit in the future and I intend to continue exercising.
97. I want to integrate the knowledge into every day life - personal growth.
99. For personal development. Eating right and exercising more.
100. Personal development
101. For personal physical fitness and personal health. I will use what I learned to stay fit.
102. In the future I will use what I learned to better my exercise workouts and modify my eating.
103. I plan on opening a day care center or nursery school and I plan to use the nutrition information in planning meals for the kids.
105. I will improve my workouts and I am going to try and tone up.
106. To help get in better shape. Also now I really know what certain exercise to do to my body and why.
107. I haven't thought about it. Personally I may use it in the future, maybe working out or eating better.
108. For personal growth. I will exercise more and I have already begun to watch my diet. I took Diet and Exercise because it sounded interesting.
110. For EMT class.
111. To regulate diet and maintain a good exercise program.
112. To put myself on a good exercise and health program to maybe better the quality of my life.
115. Personal growth. I learned things about keeping health that will benefit me the rest of my life.
116. I have plans to open a business in fitness and body toning.
119. Personal development.
120. Personal development.

EXR MAJORS' RESPONSES ONLY

01. If I do an internship the skills I learn will help with anything I do. Also I've found one class leads into another so I'm already prepared with the required prerequisites from my previous classes. Also it's improved my own work out.
04. Definitely want to get a job with what I learn. At one point I will get a certificate for personal training. I may go into cardiac rehabilitation as well. It is hard to decide.
05. For future education i.e. cardiac rehab or physical therapy.
07. The more I know the more helpful I can be to my clients.
09. To continue with further exercise courses.
12. Personal growth. I really enjoy the classes.
13. To obtain a job as a trainer or work in a hospital in physical exercise.
14. To get a different job.
15. I am presently a massage therapist (currently not working). I want to add to my knowledge. I might also continue my education and pursue exercise physiology.

16. I am going into a second career, continue.
17. As a personal trainer.
19. As a personal trainer and personal development.
24. For personal growth. I learned how to watch what I eat. I will eat better in the future.
25. I only have nutrition class, diet and exercise and anatomy. I guess I will use what I have learned in a future career.
26. I only took a few courses but dropped. The instructor I had was a really nice guy but, as an instructor, he was not good. His name is Reed. He was teaching over half my classes.
28. I will hopefully use my knowledge in a job related to exercise science. I like to work as an assistant to a physical therapist. Also I have worked at health camps. That should definitely be beneficial in my career choice.
29. Eventually after my children are in school I would like to work in a health club or doctor's office setting up dietary programs for people to follow. I am not looking for a job yet.
31. I plan to use my skills in future educational courses and also I plan to transfer to a four year university. I am not sure what university yet.
32. Future education leading to program coordinator for parks and rec classes or personal trainer.
33. Personal training, fitness consulting, managing a health club within an organization i.e. hospital.
34. To market myself in my business, to obtain more credentials to tack onto the ones I already have.
36. As a personal trainer and for my own personal development.
39. As a personal trainer.
41. As a personal trainer.
45. I want full-time work.
47. I will use my new knowledge from OCC in my future job. I hope to become an exercise physiologist.
48. I may use the skills I learned in a career in Physical Education.
51. Further education and career change to fitness/exercise area.
55. Career - sports medicine.
56. I would like to work in a rehabilitation center or sports medicine facility perhaps as a physical therapy assistant.
59. I will continue with self-employment with my own personal clients. I have business contact and will subcontract to companies giving work-site health promotions.
61. For my own personal benefit and future.
62. I am looking for a new career that involves fitness and exercise.
63. For reasons mentioned earlier - opening a health club.
64. Sports medicine or rehabilitation field assisting.
66. Personal growth.
67. To help myself and my family with knowledge. Also, for personal growth.
68. For all the above mentioned reasons (career, future education, personal growth etc.), including master's degree work.
69. As a personal trainer.
70. I plan to use it career-wise in the exercise science field. I am not exactly sure what I want to be at this time.
71. I only took one exercise science class. I plan to use the leadership skills I learned in future jobs. Also, I liked the professionalism of the program itself.
72. I plan to use the things I have learned in a career. I plan to go into cardiac rehabilitation.
78. Eventually I want to get more into personal training.
80. I might go into it as a career. I am maintaining my own personal health.
81. In every day life - I am maintaining my own health. When I get back to England, I am going to get a 4

year degree in sports medicine.

82. I plan to use the skills in my job. To use the knowledge I have gained about fitness and health at work.
83. I want to have a career in rehabilitation therapy. I can also help out my family members with physical problems.
84. For my own personal health.
86. I am planning a second career after retiring from GM, either rehabilitation therapy or occupational therapy.
88. I am interested in corporate wellness and personal training.
90. I plan to use the skills on my job and personal growth.
94. To keep training individually. Basically I do not know if I can go much further in my job with what I learned. I am currently using the skills I learned now and probably will continue to use them.
96. I plan to obtain employment in the future as a personal trainer or exercise technician.
98. I am going into coaching. On a professional basis, I will use the skills I have learned on how to work on a one on one basis.
104. I plan to use my knowledge in a job as a personal trainer.
109. I am not going to. I already was trained in nutrition and exercise through AFA (American Fitness Association).
113. To obtain a job in a physical therapy clinic and be a physical therapy technician until I go back to school to get another degree.
117. As a personal trainer.
118. As a personal trainer.

Q 8. What do you or did you most like about the exercise science courses/program?

02. I liked mostly the exercise part.
03. I liked mostly watching the videos on nutrition and exercise in class.
06. I like that it is not strictly book work (I enjoy the activities).
08. Information gained, self esteem boosted.
10. I like the motivation of instructor, Mr. Lyn Reed. It made me more knowledgeable about healthy eating and losing weight.
18. The CPR and cardiovascular section was great.
20. Vicki Kloosterhouse is a fantastic teacher.
21. I liked my teacher for the class. I was very motivated by her to get into exercising.
22. Fun, helpful people (fellow students) and class structure.
23. I really liked the people in my class. They were all very interested in health.
27. The actual hydrotone exercise in the pool was my favorite part of the class. It really helped tone my body.
30. I mostly liked the nutrition part of the course. The book was very good in educating about nutrition as well as the professor.
35. The water exercise.
37. The nutrition and information hand out.
38. The nutrition and information on fat.
40. The nutrition and fitness program.
42. What to eat and not eat; fat testing.
43. The water exercise.
44. Lecture and exercise.
46. The instructor was really good. She gave sound advice on nutrition. I was really informed about nutrition.

49. I liked how it taught me how to be in front of people without being nervous. Every week we had to present some new information on health that we had heard or seen.
50. Students had input into the course Diet and Exercise 205. I liked Tom McPhillips.
52. The way the water exercise was integrated into the course.
53. Good instruction.
54. I felt I gained a very thorough understanding of how the body functions.
57. The exercising was helpful and the material presented was very informative.
58. I thought the instructor was a lot of fun. I liked class in general.
60. I am shy. It made me a little more outgoing because I had to lead some exercises, etc.
65. I found classes to be interesting.
73. Information given and instruction were great.
74. Teachers with a positive attitude, especially Vicki Kloosterhouse. Really a beneficial class. Thought the instructors were excellent motivators in helping students stick to the program.
75. Instructors were good, convenient class times.
76. The exercises and instructors were nice.
77. Good teachers, very personalized instruction, good information, healthy snacks during class.
79. Nice instructor - Lyn Reed.
85. I liked Carolyn Moore and information presented, especially on nutrition.
95. I liked this course, hydrotone/aerobics in the water. It actually met my expectations. I learned a lot. Also I liked that you did not already have to be fit to take the class.
97. No homework. Very informative.
99. I like the aerobics for the cardiovascular benefits.
100. How the human body reacts to fitness training.
101. The motivation the professor brought to the class was excellent. It was the Diet and Exercise class.
102. My class was Diet and Exercise. We could choose to run or walk. I liked the fact we were able to choose what we wanted to do.
103. The nutrition. After taking the class I do not eat red meat. I was very impressed with the professor's knowledge in nutrition.
105. The class was taught on a one to one basis. I enjoyed working in groups in class.
106. I especially liked the hydrotone part. The whole class was good.
107. I liked when we played volleyball the most.
108. I am very interested in dieting and nutrition. My favorite part of the program was the hydrotone in the water. My teacher was very good also.
110. I am interested in learning about the different food values.
111. The three day computer program - where you put in everything you eat and it broke it down for you and told you what vitamins would be good for you.
112. Water exercise and information received was very helpful and good.
115. Only took one course (EXL) I found that keeping a daily log of my exercise was very helpful to me. I learned a lot about nutrition.
116. The study of the human body.
119. The do's and don'ts of dieting.
120. The fitness workout and aerobic.

EXR MAJORS' RESPONSES ONLY

01. I'm learning more about nutrition and learning to understand better. I was very impressed with my Exercise Physiology instructor, Vicki. She is excellent. Also, I already have a Bachelor's from Oakland University.

04. I've had Exercise Physiology with Vicki. She is great, very informative, and she teaches excellent.
05. Excellent instruction - individual attention received - helpful instructors.
07. I liked the physical activities - kept in shape.
09. Self confidence booster.
12. All the information from teachers is really helpful and interesting.
13. I like the way the program is presented.
14. I liked learning about the human body.
15. Classes are offered at convenient times.
16. Gives a lot of good information - very extensive. Great instructors.
19. The water exercise and aerobic.
24. Classes were very informative. I learned about nutrition like never before. My class got very in-depth about nutrition.
25. I like health. It is a big interest for me that is why I took the program. I am interested in the health field.
26. It seemed like the program would teach leadership skills. Also I really enjoyed the First Aid class. Osgood is a super instructor.
28. The teacher Vicki is excellent. Her teaching style is excellent. She is head of the EXL program at OCC. She is hard but you really do learn a lot in her classes.
29. I most like that the exercise/health field is wide open right now. There are many jobs available. Also, you can basically make up a new type of job relating to health, such as personal trainer, dietician, etc.
31. The classes were fun. The people in my classes were interested in the field as well. My classes were very informative.
32. Fantastic teacher in Diet and Exercise 205, Tom McPhillips. I liked the way he integrated exercise into the class.
33. Hands-on practical applications, good instructor Bruce Finegan - Exercise Testing and Measurement - other good instructors.
34. Fun people/instructors.
36. The pool exercise and nutrition.
39. The fat testing information and the nutrition.
41. Fitness program, fat testing and nutrition information.
45. The instructors are great.
47. I basically love health and I am very interested in the subject. It was very enjoyable going to class. The best thing about the program was that it is related to my field.
48. I liked the exercise part the most. It is super that we were not stuck in a classroom the whole time.
51. Instructors are great; school has been a lot of fun/ informative. Motivational/social aspects.
55. Helpful, motivating instructors.
56. All my classes were good. There was a lot of interaction with other students during class. I liked this group type of teaching style.
59. Good content; block classes. I like once a week classes so I don't have to drive a lot.
61. I gained better knowledge of subject.
62. I am learning about what I was previously doing wrong and learning about exercise and nutrition.
63. Small classes, friendly people.
64. The classes build off of one another meaning that one leads to another.
66. I had fun in class. The instructor was good. I looked forward to the next class (Exercise Leadership) but it was canceled.
67. Seemed like a very good program.
68. I like the instructors' attitudes. They are very approachable. Much material was covered.

69. The workouts and aerobics.
71. The leadership skills that I learned.
72. I like that my classes were very straight forward. You did not have to take a lot of useless courses.
78. Good instructors, especially Vicki Kloosterhouse. She gives simplified, step by step explanations in a logical format. She would review previous classes material at each session to refresh student's memories.
80. I liked the instructors. I thought the material was interesting and new.
81. The nutritional side was very good. Exercises were good.
82. I liked the people in my classes. They are all in the same field I am in. It makes the classes very interesting.
83. I got a lot of helpful information on nutrition, muscles, etc. I thought the instructors were good.
84. Vicki Kloosterhouse was very helpful. Good information given in class.
86. Emphasis on human body. I think the CPR class is very helpful.
88. I liked it all. Exercise, instructor, nutrition information. Everyone took turns bringing healthy snacks to class.
91. The instructors were great.
94. I liked the classes they offered for the program. I especially liked the testing and measurement class and exercise physiology class.
96. I have just started the program. The only class I have taken is Diet and Exercise. So far, I like it but I need more time in the program to really give a good answer.
98. I basically liked the professors. Vicki and Mr. Reed were excellent.
104. I like the professors. They have a good teaching style. I was able to really absorb the information they gave us.
109. I used to go to Lawrence Tech College and OCC is much more relaxing. I liked the atmosphere of my classes. I met some terrific friends who are also health enthusiasts.
113. To prepare for a job.
114. I liked the hands-on stuff. I enjoy activities more than lectures.
117. Learning how your body works.
118. The fitness workout.

Q 9. What do you or did you most dislike about the exercise science courses/program?

02. We saw a lot of videos, like Cobert Daily from PBS. A couple would be fine but we watched five. It began to get redundant.
03. The teacher of diet and exercise was not very good. I was pleased when she would put in a video for us to watch. I liked the videos better than her teaching style.
06. Not demanding enough academically. I wanted to learn more than I did (class was diet and exercise - EXL 5). In the catalog - nutritional consideration, cardiac, diabetic, etc., were supposed to be covered but were not. I was very disappointed.
11. I don't like the videos. They put me to sleep.
20. Times offered.
23. I dropped out in the middle. I became disinterested in it. Or actually I was bad, I just dropped out before a test.
43. Some instructors are not teaching the course very well.
53. Equipment at Orchard Ridge is not good.
54. One class at the Orchard Ridge Campus (required I think - Diet and Exercise) was far too elementary. It wasn't geared for people who were planning to pursue this field professionally.
58. The instructor made class walk about 5 miles on the first day. The class was not prepared for that and I

thought the instructor should have gradually eased them into walking.

77. Time of class - 8:00 a.m.
79. Better information should have been given in classes. Human structure and Function instructor had a bad attitude; unpleasant atmosphere in class, I and other students thought that the instructor could care less about teaching them anything.
87. Too short. Only 7 weeks.
89. The pool.
97. Monotonous routine - exercise portion of class.
99. The instructor did not explain what she was doing during the aerobics class. It was hard to follow her at times during the workout.
100. The Exercise Physiology course was very helpful.
105. I disliked the hours. It was one day a week so it was longer than normal.
108. I liked it all. Nothing was bad.
111. Three hour class too long at one time. Should be more like two hours.

EXR MAJORS' RESPONSES ONLY

01. I was disappointed that one of my teachers is very redundant. Also he was not very demanding. I feel he was a nice guy but a little too easy with homework.
04. One thing is I don't like how, during each semester, not all classes are offered. Sometimes classes only offered certain semesters and not others.
05. Too much information to learn in one course.
09. The time of day the course was offered. It was offered in the morning. I would prefer afternoons.
12. Amount of study and homework.
13. Times and hours.
14. I have not been in the course long enough.
15. Some classes like Recreational Leadership are not relevant to most careers unless you work at a park or school.
16. I want more evening classes. Classes shouldn't just be at Highland Lakes.
25. This one class I have now, I feel the instructor could put more into it. It is the diet and exercise class. She's good but not as good as I expected.
26. I disliked that Mr. Reed. He was teaching over half the courses. He's teaching with a 1940s attitude, not a 1990s attitude. Also, I don't really see any career opening for someone who graduates out of this program.
28. They do not offer enough classes in a term. Sometimes a class is only offered once in a year. I am now behind because the class I need is never available during the semester I can take it in.
29. There is one major pet peeve I have. For three semesters now the Exercise Leadership course has been canceled every time. It is one of my pre-requisite courses. Now I am a year behind to graduate. The dean does not seem to care either.
34. Students' lack of motivation. Many didn't "put out" 100%. This is nothing anyone can change though.
59. Inconvenient scheduling of classes. All classes shouldn't be at Highland Lakes. It takes me 45 minutes to an hour to get to campus.
61. Instructors, especially the guy for EXL 205. Also, poor equipment.
63. Overlap of information from class to class - redundancy of material.
64. Too much to learn in a short period of time.
66. Some parts got boring because I already knew the information plus the equipment is old.
68. No complaints other than I had to pay foreign student fees which are expensive.
70. I was pretty disappointed in the class. I took Exercise Leadership and I just did not like the instructor.

I did not like his teaching style.

71. It just did not interest me anymore. There was nothing wrong, I just realized it was not what I wanted to do anymore.
81. I don't like the fact that instructors don't introduce students to each other.
82. Some of the times are inconvenient where classes are offered. I have had to wait a whole semester to take a class.
83. Some courses leave you to your own devices - I did not have enough preparation. EXL 150 - Introduction to Exercise Leadership. Students were supposed to lead class in exercises but weren't sure what they were supposed to do. When students needed to use the weight room, it was locked. There should be extended hours in the weight room.
90. The scheduling could have been better.
91. Some classes were not related to the program.
94. Some instructors were not well qualified. Only a couple were unsatisfactory but they were teaching the major requirement courses. I feel like I missed out on learning more because of the lack of qualifications these teachers had.
98. Sometimes the homework was very hard and they would give us too much.
109. The courses were slow and boring. Teachers gave information out but seemed unenthusiastic or burnt out.
113. I do not see enough courses offered in the schedule for spring and summer.
117. EXL 151 is great.
118. Not enough hands-on training.

Q 13. If it was offered, would you consider a concentration in any one of the following areas to be a worthwhile addition to the exercise science program? Why or why not?

a) MEDICAL ASSISTING

Very Interested or Somewhat Interested:

01. Somewhat interested. I'd be very interested in learning about the heart and lungs. This would help me work with people with heart problems as well.
04. Somewhat interested. Because I'm leaning towards cardiac rehab and medical part of exercise science.
05. Very interested. I want to experiment with this area as a career option.
07. Somewhat interested. I like the medical field. There are more job opportunities.
13. Somewhat interested. I would rather be testing.
14. Somewhat interested. I find it just interesting.
16. Somewhat interested. I don't want to go into that area.
17. Somewhat interested. Only if it is dealing with the basics.
25. Somewhat interested. I think it would add a variety to the program. Then more students might enter the program also.
26. Somewhat interested. Because I think a person coming out of that program would be more marketable for finding a job career.
28. Very interested. It would be great to be certified in EKG. It opens up more doors in the job market.
29. Somewhat interested. I would be interested in taking this extended program only if there were plenty of job opportunities with an EKG certificate.
31. Somewhat interested. I know a lot of medical professionals. They all have EKG certification. I definitely feel this should be required in the medical profession or related professions.
32. Somewhat interested. More and varied opportunities.
33. Somewhat interested. Cardiovascular health and maintenance interest.
36. Somewhat interested. More interested in the EKG certification.

39. Somewhat interested. If it is dealing with the basics it should be interesting.
41. Very interested. It should be very interesting.
51. Somewhat interested. No comment
59. Somewhat interested. I don't want to work in a hospital situation but I still think it is good information.
61. Very interested. Gives a better background for anyone in the field.
64. Somewhat interested. It would be helpful to have this knowledge and I am in the field.
66. Very interested. This is along the line of my study - physical therapy/medicine.
67. Very interested. It would open up a door for another job.
68. Somewhat interested. To expand current knowledge base - certification etc.
71. Very interested. It would help a lot more knowing EKG skills. Also, people going into rehabilitation could use the EKG skills in helping others.
72. Very interested. I would be interested in using EKG skills in a job in cardiac rehabilitation.
78. Somewhat interested. Gives a larger knowledge base, thereby improving job opportunities.
80. Somewhat interested. I am taking basic EKG and really got interested in it.
83. Very interested. I think I could get a better job.
86. Somewhat interested. I think I would get more medical information.
96. Somewhat interested. I would be somewhat interested because learning to an EKG is a good skill to have.
98. Somewhat interested. It will help me out in the future knowing EKG.
104. Very interested. It would help a lot to be EKG certified. Also it would give me a chance to go into a different field if I needed to.
113. Somewhat interested. Not the main focus but would be good to know.
114. Very interested. I like hand-on types of classes. I might like to explore this area.

Not Interested:

09. Not interested. I can't stand medical setting because of a weak stomach.
15. Not interested. I worked for a physician for over years.
19. Not interested. I have already taken classes in medical assisting.
24. Not interested. I am not interested in the medical aspects of exercises science. I am more involved with nutrition.
34. Not interested. Not my line of work. I am not headed in that direction.
47. Not interested. It is not at all related to my job.
48. Not interested. Not really my field of study.
63. Not interested. Does not apply to my business. In the clubs I've worked at, I never had to run an EKG on anyone. I don't feel the EKG certification is necessary.
69. Not interested. I have some medical knowledge already.
70. Not interested. I am not interested in EKG certification.
81. Not interested. I am not interested in the medical side.
82. Not interested. It is not related to my job.
84. Not interested. This does not appeal to me.
88. Not interested. It has nothing to do with Exercise Science.
91. Not interested. Took medical assisting years ago.
94. Not interested. Not my field of study.
109. Not interested. Not my field.
117. Not interested. It is dealing with more than the basics.
118. Not interested. Too much medical terminology.

Q 13. If it was offered, would you consider a concentration in any one of the following areas to be a worthwhile addition to the exercise science program? Why or why not?

B) GERONTOLOGY

Very Interested or Somewhat Interested:

01. Very interested. I feel there needs to be more emphasis on Gerontology. I believe in the older people. I feel it will be even more important in the future.
07. Somewhat interested. It might be something I'd like to explore.
12. Somewhat interested. Older people need some help.
13. Somewhat interested. I would rather help people stay fit.
14. Somewhat interested. Because I will be old one day.
15. Very interested. I have a definite interest in working with older people.
16. Very interested. I want to help older people. With aging population, this will be needed.
17. Very interested. Gerontology is very important for a fitness trainer to have knowledge in.
26. Somewhat interested. Anything you add to the program would help you. Right now you are limited a getting a job. I hear there aren't many openings.
28. Very interested. I would not take it personally but Gerontology should be added because it will offer more classes at OCC for people who are interested.
31. Somewhat interested. Because if you are involved in the health profession, it is always good to know other skills as well.
32. Somewhat interested. More interested in medical assisting.
33. Very interested. I already have experience with older folks and would like to expand on that experience.
34. Very interested. I respect the older generation and want to meet their needs.
36. Very interested. Gerontology would be very interesting.
39. Very interested. It should already be a part of the Exercise Science program.
41. Very interested. The study of Gerontology is very important.
47. Somewhat interested. Because I could use these skills in my job. Also, the older population is always growing so it is important to know about their health needs.
55. Very interested. Sports medicine is my field of choice but I have also considered creating exercise programs for older people. In fact, three or four students in classes have been discussing this.
56. Somewhat interested. It is the largest growing part of our population. Many of my relatives are getting older. I feel it will be very important to know.
59. Very interested. I am already working with these people so more information would be very helpful. I was going to take some Gerontology classes on my own anyway.
61. Very interested. I enjoy older people.
63. Very interested. The population is aging in general. Many clients are 50 and over and have arthritis/bursitis, etc.
64. Very interested. The population is growing older. Also, this would broaden my opportunities once I am in the field.
66. Very interested. I have many older clients - wide variety of body types.
67. Very interested. Because of the medical benefits of exercise.
77. Somewhat interested. Gives a larger knowledge base, thereby improving job opportunities
82. Very interested. Because I mainly deal with an older work force, 45 years or older.
83. Very interested. The more you know about the people you work with, the better job you do.
86. Very interested. I have decided to work with seniors after I retire to New Port Richey, Florida.
88. Somewhat interested. The older people are into exercise.
91. Very interested. Very interested in Gerontology.

94. Somewhat interested. This field will be really big in the future and I would like to have a little background on it.
98. Somewhat interested. I feel we need to know about the older population.
104. Somewhat interested. I have worked with older people before. It would be nice to learn more about their specific health needs and if there are special ways to train them.
113. Somewhat interested. I will be working with older people in physical therapy.
114. Very interested. I already work in community centers with older people. I think you should know about the needs of all kinds of people.
117. Very interested. I am interested in working with older people.
118. Somewhat interested. As a trainer, Gerontology is something I need to know.

Not Interested:

05. Not interested. Gerontology isn't my "thing".
19. Not interested. Not at all interested in dealing with older people.
24. Not interested. Doesn't matter to me either way. I'm just not interested in this field.
25. Not interested. It is not of interest to me.
48. Not interested. Not my field of study.
51. Not interested. More interested in working with children.
61. Not interested. Just not interested.
68. Not interested. Not really interested in Gerontology.
69. Not interested. I am not interested in working with older people.
70. Not interested. Gerontology is not my field of study.
71. Not interested. I don't like the thought of people sitting in bed rotting away. I couldn't emotionally handle this.
72. Not interested. Not my field of study.
80. Not interested. I don't want to work with the elderly.
81. Not interested. I am not interested in old people.
84. Not interested. Does not appeal to me.
94. Not interested. Not my field of study.
109. Not interested. Not my field.

Q 13. *If it was offered, would you consider a concentration in any one of the following areas to be a worthwhile addition to the exercise science program? Why or why not?*

c) BUSINESS

Very Interested or Somewhat Interested:

01. Somewhat interested. Because I feel if I ever want to make a lot of money, I will need to start my own Power House or other exercise business.
04. Somewhat interested. Because I think larger corporations are going to start their own health programs and this type of business skill will be highly needed.
12. Somewhat interested. It is hard to get your own business started.
13. Very interested. I would some day like to have my own business.
15. Very interested. Very helpful when you are self-employed.
16. Very interested. I have business experience already and think that corporate fitness centers/programs are the wave of the future. Also, this is where the money is at.
17. Somewhat interested. The business addition should be fun.
19. Somewhat interested. I would like to open my own business.
24. Somewhat interested. Because I probably will open my own business in the near future.

28. Very interested. It is always good to have a business background. It opens more doors in the job market.
29. Very interested. I already have a management background so it could only improve my knowledge. Also if I ever wanted to run my own business it would be excellent to know how to start one.
31. Very interested. It is always good to know about business and how it works. I would be interested in learning management skills.
32. Somewhat interested. I already have small business experience.
33. Very interested. I would like to be self-employed in this field and would like small business knowledge.
39. Somewhat interested. I would like to start my own business.
41. Somewhat interested. It could be very helpful. I would like to have my own business.
47. Somewhat interested. I have my own business now and it never hurts to get new management skills or to update my skills.
48. Somewhat interested. Business skills are good to know just in case I decide to open up my own health club.
61. Very interested. I was originally going into corporate fitness. It is good information for anyone to have. Business knowledge always comes in handy.
63. Somewhat interested. Most people in the program end up doing personal training and, thus, the business concentration would not be necessary.
66. Very interested. Because I am self-employed. I need the background to market myself and run my business.
67. Somewhat interested. I have done this before. I owned an exercise business.
70. Somewhat interested. It is good to know something about business. I think a degree in Exercise Science combined with business is a great idea.
71. Very interested. I am interested in business so this would be an excellent course to add to the program at OCC.
72. Somewhat interested. I may plan to open my own cardiac rehabilitation facility in the future.
78. Very interested. I plan on opening my own business.
80. Somewhat interested. I am not sure what I will be doing in the future. I might open a health club and this would be helpful.
81. Very interested. I enjoy business, geography and sports and would like to incorporate all three in a career.
82. Very interested. Because I am a manager of the health facility now so any other course will enhance what I do.
83. Somewhat interested. I am not a business person but it wouldn't hurt to know.
84. Somewhat interested. I am leaning towards being a personal training.
86. Somewhat interested. You never know when this could be used. An opportunity might present itself where classes like this would come in handy.
88. Somewhat interested. I am interested in business.
94. Very interested. Because it is always good to learn business skills. I think these classes could be a benefit to my future. Especially if I became a manager or started my own health facility.
96. Somewhat interested. Because it is good to know how to manage and run a health center. Also in the future, I may plan to open one.
98. Very interested. Learning. Everyone wants to learn how to run their own business.
104. Somewhat interested. With what I do now, I have to know a lot about business. It would be super to develop my skills better, especially in management.
109. Very interested. This is the only one I would ever consider taking if I were still at OCC. I feel it is a necessity to know good business skills.

- 113. Somewhat interested. In case I ever wanted to open my own business.
- 114. Very interested. To help me handle my business as it grows.
- 118. Very interested. I would like to open my own business.

Not Interested:

- 05. Not interested. More people oriented than bottom line oriented. It would be too stressful for me.
- 25. Not interested. Again, I have already have this background. I do not want to waste time in something I already know.
- 55. Not interested. I already have background. I have worked in my family's business.
- 59. Not interested. I have already done this.
- 61. Not interested. Too stressful
- 64. Not interested. May for someone else, but not for me.
- 68. Not interested. I am not a business person.
- 69. Not interested. It has nothing to do with exercise.
- 118. Not interested. I already have knowledge in that area.

Q 13. *If it was offered, would you consider a concentration in any one of the following areas to be a worthwhile addition out the exercise science program? Why or why not?*

d) OTHER:

- 01. Nutrition. I'm extremely interested in nutrition. Also you cannot work out properly without the proper fuel to do it with. I will be thrilled if they would add this degree!
- 04. Dietician. I am also considering working with overweight people and I want to know more about eating habits and nutrition.
- 15. Kinesiology also anatomy and physiology. Unless you know the body, muscles especially, you can't work with it completely effectively.
- 26. Physical Therapy Assistant Program. OCC should research other colleges who offer that program. I hear there is usually a two year waiting list. It is very popular. I am sure it would also be a popular program at OCC.
- 29. Nutrition. Because OCC needs more in-depth nutrition courses on how to prepare a diet for a person with a specific health problem. Also how to set a diet for an obese person.
- 55. Overall view of training. Specific courses on how to set up exercise programs specifically, how to use weights properly etc. These things are only gone over briefly - not in depth.
- 59. Youth and Adolescence. We should start educating kids while they are young on the importance of exercise and good nutrition. Then young couch potatoes won't grow into old couch potatoes.
- 66. Children specialty. To understand their limitations while they are still growing.
- 81. Instruction of sports, sports psychology. It narrows the field owns and makes it more specific for those who aren't sure that to go into.
- 82. Personal Trainer for weights. A lot of people ask me know do I build my arms. I only tell them what I have read in books. There needs to be a specific program for weights.
- 83. Aquatics Rehabilitation. Lots of demand for this type of exercise with arthritic people.

Q 14. *To receive this extended associate's degree in exercise science, these concentrations would require 6 to 8 additional credits beyond the current 66 credits. Would this information alter your previous answer? Please explain:*

- 01. No. I'd already be spending the money so what's another 100 bucks on extra courses. It's an added treat to have extra degree programs added.
- 04. Yes. I think the more background you have in a field the better your resume looks.

12. No. Because if you want something bad enough, the additional time will not matter.
13. No. I would not bother me.
14. No. Learning is power. It doesn't bother me if I have to go longer.
15. Yes. There are some classes such as speech and recreational leadership that could be replaced by those mentioned before.
16. No. I think it would be worthwhile.
17. Maybe. Six or eight credits is not bad. The concentrations are interesting.
24. No. Taking extra classes won't really be a big deal. Anyway. it could be of benefit me to have more background in the field.
25. Maybe. I would put it as an option. A student should not be required to take the extra courses.
26. No. It would not change my answer. OCC offers so little in the program. I think any additions would be beneficial in Exercise Science.
28. No. Because it would only require two or three more classes to take. Also, it will make graduates more marketable.
29. No. Because the extra classes would be beneficial. A few extra credits is not problem.
31. Maybe. I feel it could be offered but it should not be a requirement for everyone. A student should be able to choose.
32. No. This would be not problem at all for medical assisting. I would have more of a problem with Gerontology or Business.
33. Maybe. I am eager to get out into the field and this would delay my getting through. But, it is still better to have the extra certification than not.
34. No. Get rid of the offerings that are useless and replace them with these new courses.
36. Maybe. I am very happy with the program and any addition to it would be great.
41. No. The concentrations would be very interesting and should be part of the program.
47. No. I would not be very concerned with Gerontology at the point in time but I feel they should still offer it. I'd definitely take extra business courses.
48. No. Six to eight credits won't really be that big a deal.
51. No. That's not much at all.
56. Maybe. I don't see anything in the current curriculum that includes gerontology. I guess if I had to take extra classes I might not. It is hard to say at this time.
59. No. I am interested in gerontology anyway and consider myself to be a life long student.
61. No. If it is needed, 6-8 additional credits isn't much.
68. No. I am looking forward to increasing knowledge base.
70. No. Because the most I would have to take is 2 or 3 extra classes. That is not bad at all.
71. No. Because to gain the extended degree would only be an extra on or two classes. That is no big deal.
72. No. With an extended degree I would be more qualified for a job. More marketable.
78. No. I probably have most of the credits anyway.
80. No. It would further my education and 6-8 credits isn't that much more to take.
82. No. I am a lifetime student already. I will always take classes to advance my education. I enjoy taking extra classes.
83. No. The more you know, the better.
84. No. If I was interested, it wouldn't matter. An additional 6 - 8 credits isn't too much more to take anyway.
86. No. Since GM is paying for it, it doesn't matter. I think additional classes would be helpful.
88. Maybe. It seems very interesting.
90. Maybe. I did not know that it would require additional credits.

94. No. Because I could not get the extended degree without taking the required classes.
96. No. At this point it would not alter my answer. But it is really hard to give an opinion since I have just begun the program.
98. Maybe. It is a hard decision. It is two classes. It depends on what classes I would have to take.
104. No. The courses would be beneficial and eventually everyone in the health and exercise field will need these skills.
109. No. Because two classes is not a big deal to take for an extended associate degree.
113. No. I don't mind taking the extra credits so I can be better prepared for my job.
114. Maybe. I have to think about it.
117. No. The concentrations are interesting.
118. No. It would be interesting. The business sounds great.

Q 20. *In your opinion, how can the scheduling of exercise science courses be improved to better meet your individual needs?*

02. They are doing just fine.
03. I don't think they could be improved.
20. More classes in summer and evenings.
23. They need to have more choices for the times. Some of the classes only met at one time.
27. OCC should not have classes so far away. I had to go to the Orchard Ridge campus when my home campus is Southfield and Royal Oak.
30. I have had no problems getting the classes I want.
37. More courses should be offered during spring and summer.
38. The scheduling was fine.
43. Some courses should be offered yearly.
44. Better parking - closer to campus.
46. With my job, some of the classes were only offered at certain times. A few classes were only offered one semester a year. I feel classes should be offered a couple of semester a year.
50. A greater frequency of offerings needed throughout the year.
53. Some classes could be offered at a greater variety of times.
54. I wanted to take some classes in spring and summer but they weren't offered then.
65. Schedule more classes for mid afternoon.
74. More classes in the afternoon between 1 and 4.
77. No 8:00 a.m. classes. Noon time classes would be good.
79. Offer classes at more times - seems like none are offered in summer.
87. After 9:30 a.m. is best for me because I have to get my kids off to school first.
95. The only problem I had was the classes available were at Orchard Ridge. My home campus is Southfield/Royal Oak. Orchard Ridge is out of the way for me.
100. The courses should be in split sessions and scheduled more often.
101. OCC should have a better selection of exercise science courses in the evening. Many people work during the day. Mostly all the classes were in the day.
102. They did not have a great selection of Phys Ed classes in the schedule. Maybe they should offer more but I am not sure what.
103. OCC should offer more exercise science classes during the week. I had to take my class on a Saturday.
105. They could add more two day a week classes rather than so many classes that meet one a week.
108. I had no problems. I did not even look at any other exercise science courses but Diet and Exercise.
111. More classes in the evening for people who work during the day.
112. The schedule was fin for me and met my needs.

115. Some classes were only offered at Auburn Hills. I couldn't take them because it is too far for me to drive.

EXR MAJORS' RESPONSES ONLY

01. I'd prefer more classes offered in the day. I'd like to see EKG classes and nutrition classes in the day. Also, I prefer less block classes. I feel going once a week to class does not keep you fresh on material you learn.
04. Classes should be offered every semester. This way people can always take the classes they want.
05. I would prefer more evening classes. Also, I want a greater frequency of offerings.
09. More in the afternoon.
12. OCC should have more block sessions during the week - at least 2 or 3 times.
13. By offering classes on different days and times more than once a week on, for example, Monday at 10:00 a.m.
14. Offer day and evening classes for the entire program.
15. Certain classes are only offered once a year. I would like to see them more often.
16. More evening classes. More scheduling for full-time workers.
17. The courses should be scheduled in split sessions only.
19. Courses should be offered in the spring and summer and the block sections are great.
24. I am not sure on that. I have only had two classes so far and none have given me any problems.
25. Classes should be offered more frequently. Maybe more instructors for the program. also they should add more classes to the Exercise Science Program.
26. I think the additions to the program are needed. Students will come out more marketable for today's job market.
28. They should offer classes all year even in fall and winter. Many Exercise Science classes end up being offered in Spring and Summer.
29. The college should offer more classes during spring semester. This spring all I see offered is aerobics. Also I would prefer less canceling of classes. And, is it possible to have classes offered at other campuses like Orchard Ridge?
31. The counselors need to talk more with students about schedules and how to register.
32. More evening classes, more days of the week, more classes at locations other than Highland Lakes.
33. Consult with students i.e. take a vote in class to see the best course and time offerings for the greatest amount of students. Present options before committing them to the schedule.
34. More field locations should be used i.e. on-site facilities.
36. More courses should be offered yearly.
41. The courses should be offered yearly.
45. Timing - I am not happy with only evening.
51. Move the program to Auburn Hills from Highland Lakes
56. More classes should be offered in spring and summer.
57. I only took the one class for my PE requirement and I don't intend to take any other exercise classes in the future.
59. More classes at Orchard Ridge which has a pool and could be used for the Exercise Science program. Highland Lakes does not have a pool.
62. A greater frequency of offerings is needed.
63. OCC needs a greater frequency of offerings throughout the year. The internship in the OCC exercise room at Highland Lakes is a waste of time. It is cheap labor. Actually, the students have to pay OCC to work there.
64. Greater frequency of offerings.

66. I want a greater frequency of offerings.
67. Some classes are only offer in winter and hard to take.
68. Greater frequency of offerings.
69. The courses should be scheduled more often.
70. They should offer classes year-round. I have seen classes only offered in summer or one other semester.
72. I would like to see more block classes offered two times a week.
78. I have not been able to take PER 284 "Recreational Leadership" It is only offered spring term and I have not been able to fit it in.
80. Courses are not offered enough times during the year. If class is only scheduled for one term, you might have to wait around for 1 year before you could fit it into your schedule.
81. Start later in the evening, maybe 6:30 p.m.
82. More evening classes because I work in the day. They should offer an exercise program at Auburn Hills or at least some general exercise science classes there. Highland Lakes campus is not close to everyone.
83. There should be more evening classes, more Saturday classes. Get more instructors to teach more classes.
84. Offer more classes throughout the year, especially in the evening.
90. The courses should not be seasonal.
94. They need to offer classes more than just once a year. Offer the classes every semester, including the short spring/summer.
96. I would like to see Human Structure and Function offered on Tuesday and Thursday. Also Tuesday and Thursday are the only days I can take classes. Many of the courses I have seen are on the other days.
98. They should offer two of the same class. That way, they can have room for everyone who wants to take the class.
104. Schedule more of the courses two day a week. This keeps the information fresh in my mind.
109. It was fine. I had no problems scheduling courses when I went there.
113. I would like to have more classes offered in spring and summer.
114. 15 week classes instead of seven. More block sections.

Q 21. *Is there any other comment you would like to make about the exercise science program at OCC?*

02. Not really. I'm Pretty neutral.
06. Not the program - just this one class was disappointing (See question 9). I have had anatomy, nutrition, etc. in nursing courses, I expected more.
11. Better work out facilities at Orchard Ridge Campus. The equipment is very old.
21. I feel the Exercise Science program offered at OCC is very well run. It is well organized.
22. I enjoy classes. It is not a "blow off" gym class. I have learned a lot.
27. I feel the class was beneficial to a certain point. But I would rather use money on a class in my program of study. It is not necessary to take a physical education class.
30. Diet and Nutrition was a great class. I have improved my eating habits as well as my work outs.
42. The program is great. More people should take it.
46. It is very strong. I found out when we were in the weight room some of the equipment was old and broken. It was pretty dangerous to use. They should at least fix the equipment.
49. The Exercise Leadership class was wonderful.
52. The teaching was great. I really liked Diet and Exercise 205.
53. The room at Orchard Ridge campus is inadequate.
54. Vicki Kloosterhouse is great.

58. I thought classes were really good. They were fun and I enjoyed them. I especially liked the walking and I still walk for exercise even though I am finished with class.
74. Nothing more to say. I just liked my classes a lot. Also, regarding question about block classes vs. split sections, I thought split sections were more conducive to motivating a person to stick to an exercise program rather than just going to one class a week. The more often you go, the better.
79. I think it is a good field to go into but not for me.
85. I thought the teachers were very helpful. They took a personal interest in their students. When Carolyn Moore hurt her back, she made sure that she didn't aggravate the injury during the course.
87. I think the Diet and Exercise class should be mandatory. The class gives very useful information that a person can use for the rest of their life. I think this makes more sense than just taking Badminton or Volleyball to fulfill the PE requirement.
97. Tom McPhillips is a great teacher.
101. I thoroughly enjoyed the class. I have now filled my phys-ed requirement.
102. Highland Lakes weight room was very small. I thought there were supposed to be people available to help you use the equipment. No one was there.
105. At the Orchard Ridge campus the exercise equipment is old. They should get new stuff.
115. I was satisfied with the EXL class I took.

EXR MAJORS' RESPONSES ONLY

01. I'd love to see OCC offer an Associate's degree in Nutrition. Nutrition is the foundation of everything! That's all.
04. I'm just starting out. It is really a good program.
12. Mr. Lyn Reed should have a gold medal pinned on him for life.
16. I think the program is excellent, especially Vicki Kloosterhouse.
26. OCC should offer a bigger variety of teachers. Not just one or two for a program. I think they should be more candid with students. They should tell them what to expect career-wise once they are out of the program.
28. OCC needs to add more courses in Exercise Science. More variety, like working with accident victims, working with disabled kids and how to teach Exercise Science. Also, OCC should have all courses transfer to a four year university.
29. So far it is okay. I just started last fall. The cancellation of classes really bothers me. I am a year behind due to three semesters of cancellation of Exercise Leadership.
31. It is great. I like the Exercise Science program a lot.
33. Offer more Exercise Science courses at the Royal Oak campus.
45. Real satisfied. Staff and equipment are great.
47. OCC should obtain new exercise equipment for the Orchard Ridge campus. It is very old and needs updating.
51. I am very satisfied with the program. It is the best thing I have ever done.
56. I am not into the program that far. I have not really run into any problems.
59. I hope to see changes in the future. I am glad you are doing this survey and hope that it helps.
61. I think we need better equipment. What we have is old, out dated and falling apart.
63. More electives like recreational leadership are needed.
68. It is a very good program, instructors are good too.
70. I have only taken one class so I really have no idea about the program and what it can offer me.
78. I thought a couple of classes were a waste of money. They were taught by Mr. Reed. I learned a little about history of physical education, students gave speeches on unrelated topics. I can't really remember learning much of anything in these classes.

80. I think Vicki Kloosterhouse is a great instructor. She breaks down information and presents it in a simplified, easily understandable manner. Same for Lyn Reed.
81. Tuition is too expensive for foreign students. OCC should get together with Au Pair of American to reduce rates.
83. I think the instructors are overworked because there are so few of them. Lyn Reed seems to be overloaded with coaching and classes. Hire more instructors to give students a variety of class times and to alleviate load of present instructors.
94. I wish there was more guidance when it comes to internships. There is a director of programs/internships but still I had problems. She did not make the effort to make calls when it was required. I became the middle man in the situation. It is hard to talk to the person in charge of my internship without the director getting in contact with them first.
104. I have enjoyed it so far and hope to take more classes to become a personal trainer.
109. Instructors knew a lot but were not enthusiastic. They did not motivate me at all. I stopped going because I already had the background in exercise science they were teaching us.
112. I enjoyed taking the classes.
114. I would like to see more outside opportunities to practice what you are learning (besides internships) like visiting clubs, etc. I would also like to see more speakers - people who are employed in the field.