Exercise Science, Health and Physical Education

VISION STATEMENT

The Department of Exercise Science, Health and Physical Education aspires to be a nationally recognized program in the fields of exercise and health science. The department is committed to developing strong undergraduate and graduate programs for students who wish to pursue careers or professional programs in these fields. This will require the department to attract a diverse population of faculty, staff, and students. The primary focus of the department over the next five years will be the enhancement of current offerings such as the Exercise Science major, Health and Physical Education major, Coaching Fundamentals minor, and Coaching Certificate. As the undergraduate programs develop and more faculty and students are secured, graduate education will become a priority.

In addition, the department will continue to be the University-wide leader in student wellness and recreation. The department provides all Michigan Tech students with co-curricular classes aimed at engaging students in active, in-depth learning of wellness concepts through participation in a variety of activity classes. Three physical education units are required by all students for graduation to emphasize personal decision making on one's own health. In addition to co-curricular activity classes, the department also offers Intramural-Recreation Sports programs, which provide a wide variety of recreational activities that appeal to the leisure-time pursuits of the students, faculty, and staff.

DEGREE PROGRAM DEVELOPMENT

Our five year goal is to offer the following undergraduate and graduate degrees. Offering graduate degrees will be contingent upon development of a successful undergraduate program.

- Exercise Science (B.S.) – Fall of 2006
- Health and Physical Education (B.S) – 2007-08 (May 4 2007 Board of Control approval pending)

- Exercise Science (MS and PhD) – 2008-09 or 2009-10
- Physical Therapy (DPT) – 2010-11 or 2011-12

GOALS AND FUNDRAISING PROJECTS

I. World class faculty and students

Our goal is to attract faculty with national and international reputations in the health and allied health field. We expect our faculty to be productive in both the research laboratory and the classroom. In addition to recruiting world class

faculty, we want world class students. We want students who are highly motivated and committed to succeeding. In order to recruit the finest faculty, staff, and students, we are asking for:

- A new wing on the second floor of the SDC for faculty offices, graduate student offices, research laboratories, teaching laboratories, a student computer lab, classrooms, and a departmental office. Our current departmental quarters are inadequate to recruit world class faculty and students.
- Two endowed faculty positions
- An endowed departmental account for replacing equipment, special projects, and professional development
- An endowed account for undergraduate and graduate academic scholarships
- Additional funds for our on-demand Tech fund account

II. Discovery-based learning

Our Exercise Science degree has two career pathways. We have some students we are preparing for immediate employment as a cardiac rehabilitation specialist, health fitness director, personal fitness trainer, sports nutritionist, and/or strength and conditioning coach. Our curriculum includes an internship requirement which will help prepare our students for these jobs. Our other pathway is a pre-professional route which will prepare students for advanced degree programs to become a medical doctor, physical/occupational therapist, chiropractor, nurse, university professor, or research scientist. We have two primary needs, one that has already been mentioned:

- A new wing on the second floor of the SDC for faculty offices, graduate student offices, research laboratories, teaching laboratories, a student computer lab, classrooms, and a departmental office. Our current departmental quarters and classroom technologies are inadequate for providing top-notch innovative teaching
- An endowed internship coordinator position

III. World class research and scholarship

Michigan Tech University has not traditionally engaged in health and physiological research. Our department will open up new avenues for research and funding in the health and allied health fields. Research in the area of cardiovascular disease is underway at Michigan Tech for the first time in over 4 years, and for the first time ever, there are strong initiatives to collaborate with local and regional hospitals. The National Institutes of Health, American Heart Association, American Diabetes Association, and other health agencies will be targeted for research grants. In order to obtain world class research and scholarship, we are asking for:

- A new wing on the second floor of the SDC for faculty offices, graduate student offices, research laboratories, teaching laboratories, a student

computer lab, classrooms, and a departmental office. Our current departmental quarters and classroom technologies are inadequate for providing world class research and scholarship.

CAMPAIGN STORIES

Do you know someone who suffers from a cardiovascular disease or diabetes?

Our nation is in the midst of a health epidemic. The American Heart Association recently reported that over 136 million Americans (65.1% of our population) have a body mass index (BMI) of 25 or higher and are classified as overweight. Obesity (BMI $\geq$ 30) has increased from 22.9% to 30.4% during a recent eight year span (1994-2002), while extreme obesity (BMI $\geq$ 40) increased from 2.9% to 4.9% during the same time period. Even more disturbing is the fact that nearly 9.2 million children and adolescents are considered overweight or obese.

Obesity is a primary risk factor for the development of both **cardiovascular disease** and **diabetes**. Over 71 million Americans have one or more types of cardiovascular disease and it remains the #1 cause of death in the United States. Nearly 2,800 Americans die every day due to a cardiovascular disease. Diabetes is the fifth leading cause of death in the United States and over 20 million Americans have the disease.

How can Michigan Tech University help?

One of the largest contributors to obesity is physical inactivity and poor nutrition. Did you know that 59% of American adults fail to engage in just 10 min of vigorous leisure-time activity per week? Engaging adults in physical activity must be a priority to help reduce the number overweight individuals, but perhaps even more urgent is the need to reach our youth. An amazing 61.5% of American children (age 9-13) do not participate in any organized physical activity during their non-school hours! By the age of 16, 31% of Caucasian females and 56% of black females report no habitual leisure-time activity.

With our nation's obesity epidemic at an all-time high, Michigan Tech University is looking to make a difference. **The newly developed Department of Exercise Science, Health and Physical Education plans to join in the fight to decrease obesity and will be offering an undergraduate degree in Exercise Science beginning fall of 2006.** Plans are underway to develop a graduate program in Exercise Science, an undergraduate degree in secondary health and physical education, and ultimately a graduate Physical Therapy program. Our goals align with the University strategic plan:

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Statistics provided were from the 2006 Heart Disease and Stroke Update published by the American Heart Association (*Circulation* 113: 85-115, 2006).