

# Initiative Report for HPEA 2009-10

## Fitness Training Program Enhancements

### Summary:

The Fitness Training Program (FTP) faces the ongoing challenge to remain current with fitness industry standards and emerging technology. Upon entering the job market, graduates of this program are expected to have experience with new technology and to be up to date with current fitness trends and industry standards. The Fitness Training Program has built a reputation for producing qualified, prepared, and highly sought after graduates in the job market. Past support through the Carl Perkins Grant has helped us meet the demands of the industry and produce graduates who are competitive in this job market. This is especially important in the current economic climate.

The Bureau of Labor and Statistics lists fitness professionals as one of the fastest growing job markets. This initiative will help FTP students to be competitive job seekers in the fitness field. This can be accomplished by providing funding for the acquisition of technologically advanced instructional aids to improve the educational experience of our students, as well as providing funding for instructional assistants, who will supervise work-based learning opportunities in on-campus Cooperative Education sites.

Support of this initiative will continue to allow the Fitness Training Program to meet the employment training needs identified by local fitness industry employers, the programs Advisory Committee, the American College of Sports Medicine, and the Bureau of Labor Statistics Occupational Outlook:

*Overall employment of recreation and fitness workers is expected to grow faster than the average for all occupations through 2012, as an increasing number of people spend more time and money on recreation, fitness, and leisure services and as more businesses recognize the benefits of recreation and fitness programs and other services such as wellness programs.*

Work-based learning as a component of postsecondary programs is listed as the most significant source of education and training for fitness-related careers. This initiative will provide students the chance to apply exercise principles and theories to real-life situations, while under faculty and staff supervision.

### Description

The Professional Fitness Training Program is seeking funding and support for a variety of projects:

1. Instructional Support Specialists----Funding from the Carl Perkins Grant for part-time instructional assistants will increase learning opportunities for professional technical program students. The instructional assistants will provide valuable instructional support including individual tutoring, assistance during course-related laboratory activities, and

additional supervision and training during Co-operative Education internships. These services will increase program students technical skill and potential for employment.

2. Instructional Aids and Equipment----Funding for instructional aids and equipment are requested from the Carl Perkins Grant to enhance learning opportunities in Fitness Training Program core. Funding for equipment is necessary to increase professional technical student opportunities for hands-on experience with the latest fitness technology and assessment tools, thus strengthening the academic, vocational, and technical components of the Professional Fitness Training Program.

3. Computer Hardware and Software ---- A department server and upgraded software is requested to update our instructional computer programs offered to program students. With the support of past initiatives, we have purchased numerous Visual Health Information Kits (VHI) for use in our Fitness Training Program. The limitation with these kits is that their use is restricted to a single computer. VHI now offers a server edition that would enhance the accessibility of this valuable software for instructors and students in our career technical program. We currently lack a server to house this new instructional software. The Visual Health Information software program will allow instructors and student interns the opportunity to create visual aids of rehabilitation programs, or exercise programs for students and employees in TERC, FEC, and a variety of other PE classes. Exercise programs can be individualized and printed for each participant. These resources would not only benefit our career technical students, but also any student or staff member enrolled in physical education courses.

4. Curriculum Development ---- The Professional Fitness Training Program would like to develop several new online courses:

- The first course would focus on providing health and fitness professionals with practical information to use in working with the older adult population. Our goal would be to present information on both the physiological, psychological, and social changes that occur with aging and practical techniques for professionals (or future professionals) to incorporate exercise and functional training with the Baby Boomer population. The tentative title of this course would be *Physiology of Exercise and Healthy Aging*. The course would apply the science of exercise physiology to an analysis of the aging process and identify the positive effects that regular exercise and physical activity have not only on longevity but also on delaying specific diseases, decreasing morbidity, and increasing quality of life. Key concepts that would be presented include: theories on aging, the aging process, the structural and functional changes that characterize advancing age, exercise programming concerns for the aged, and the benefits of exercise and physical activity. This course would be offered in an online format and could serve as a directed elective for career technical program students, as well as a distance learning and continuing education opportunity for professionals working in the allied health field. This course would also be suitable for LCC students with an interest in the field of preventative health care and exercise science.

- The second course is tentatively entitled *Biomechanics of Sport and Exercise*. The focus of this class will be application of physical laws and mechanical aspects governing human motor function. This course will provide students with an understanding of the biomechanical principles of movement and their application to sports and human performance. A review of current strategies/technologies to enhance human performance would also be presented. This course would be taught in an online format, and as stated above would benefit current students in the Professional Fitness Training Program, working health and fitness professionals and coaches as a continuing education opportunity, as well as any LCC students with an interest in the field of exercise science. This course is also a common degree requirement at 4-year universities with Exercise Science degree programs. Students would benefit in the transfer process to 4-year programs by having this course already completed.
- The third course is tentatively entitled *Exercise and Cancer Recover*. This course would provide specific guidelines for exercise intervention to help cancer patients deal with treatment-related symptoms both during and after treatment. An overview of the etiology and effects of cancer would be provided and information on how to adapt normal exercise assessment and prescription procedures to each client's cancer history and current condition. Students would learn how to adjust exercise according to the ups and downs of treatment and its side effects and how to use exercise to strengthen the body and lessen fatigue rather than depress the immune system. Insight into what clients are experiencing and how to communicate effectively with their physicians would also be discussed. This course would also be taught in an online format, and as stated above would benefit current students in the Professional Fitness Training Program, Nursing program students, working health and fitness professionals and other health care providers as a continuing education opportunity. This course would also be open to any LCC students with an interest in the field of exercise science.

## Questions and Answers

**How is the initiative linked to the Unit Plans most recently submitted?**

- 1. How does it continue the achievement of those goals?**
- 2. If this is a continuation of an initiative started last year, make sure that relationship is clear.**

**How is this initiative linked to the efficiencies and productivities plans you had last year?**

- 1. How does it continue the achievement of these plans?**
- 2. If this is a continuation of an efficiency or productivity plan started last year, make sure that relationship is clear.**

**How is the initiative linked to the Unit Plans most recently submitted?**

- 1. How does it continue the achievement of those goals?

One of the Division goals for Health, PE, and Athletics has consistently been to increase the number of applicants to the Fitness Training Program and to maximize the retention rate in the program. This recruitment/retention goal is balanced with a related goal to consistently produce graduates who are of the highest quality and who have both the academic and professional skills to make them competitive in today's market. By continuing to provide Instructional Assistants in the classroom and in cooperative education sites, FTP students receive more assistance in learning key concepts and gaining critical skills. Students receive instruction in small groups and are then given the opportunity to practice those skills in a supervised environment. This in turn improves our retention and success rate.

Another goal has been to increase the diversity of our course offerings and offer a variety of formats to meet the needs of a varied student population. The new courses that would be developed would meet a program need, a community need and increase FTE for the College. In addition, these courses would enhance the articulation process for program students with 4-year College and University Exercise Science Programs.

- 2. If this is a continuation of an initiative started last year, make sure that relationship is clear.

The Health, Physical Education, and Athletics Division has consistently submitted Fitness Training Program Enhancements as one of its highest priority initiatives. This initiative will continue to enhance the quality of instruction and provide students with new and significant learning opportunities. By continuing to keep our equipment and lab supplies current, students are provided with the opportunity to achieve the skills necessary to work in the fitness industry. In addition, FTP students are able to provide fitness services to the campus community. This not only gives students the opportunity to apply classroom learning objectives in a work environment, but it also provides the campus community with quality health and wellness opportunities. Over 3,000 Lane Community College staff and students benefit from the services provided by this program.

- How is this initiative linked to the efficiencies and productivities plans you had last year?

### **How does it continue the achievement of these plans?**

Perkins funding provides Instructional Assistants for the program core classes and on-campus Co-operative Education sites which enables instructors to expand curriculum and develop more in-depth learning activities. Instructional Assistants provide the critical supervision and instruction that is required in career technical programs. Both in the classroom and outside of the classroom, these assistants enhance the learning opportunities available to FTP students. The Fitness Training Program student population is very diverse and includes single parents, displaced workers, women in transition, low-income individuals, ESL students, students with disabilities, and others with challenging

life circumstances. Continued funding is consistent with prior year unit plans that identified successful program elements and their alignment with overall college priorities:

- The Fitness Training Program Enhancement initiative aligns with the college priorities on multiple levels.
  - It addresses the mission by providing affordable, quality, lifelong educational opportunities that include: Professional technical and lower division college transfer programs, employee skill upgrading, business development and career enhancement, foundational academic, language and life skills development, and lifelong personal development and enrichment.
  - The initiative also supports all of the core values of the college, which are incorporated in program core classes.
  - In addition, the Fitness Training Programs primary goal aligns with colleges goals to transform student's lives, the learning environment, and the college organization. The following are particularly evident in the program:
    - Assisting in the personal, professional, and intellectual growth of students by providing exemplary and innovative teaching and learning experiences and student support services.
    - Creating a diverse and inclusive learning culture.
    - Enhancing and maintaining inviting and welcoming facilities that are safe, accessible, functional, well-equipped, and aesthetically appealing.
- Program students will gain improved instructional services and access to technology. Cooperative Education internship sites will increase supervised work-based learning opportunities. Students will also gain from strengthened academic components within program core courses, and the requested instructional aids and equipment will facilitate kinesthetic learning styles.
- This initiative will also help to position Lane as a vital community partner by empowering a learning workforce in a changing economy, as well as promote professional growth and provide increased development opportunities for staff both within and outside the College.

If this is a continuation of an efficiency or productivity plan started last year, make sure that relationship is clear.

Through the cooperation of instructors and instructional assistants each student receives the contact hours and additional assistance they need in order to be successful. Faculty and staff continuously strive to provide students with the knowledge, skills, abilities, and self-confidence to be successful in this demanding field. Continued funding of this initiative will enable the division to continue to pursue enhancements identified in prior year unit plans including:

- Funnel High School seniors directly into Professional Fitness Training Program through College Now.

- Form transfer degrees with Oregon State University and Northwest Christian University's Exercise Science Programs.
- Offer more Continuing Education Courses (CECs) for community fitness professionals.
- Develop new and diverse course offerings that will benefit current program students, as well as professionals in the community and other students who have an interest in the application of exercise in the health care field.
- Incorporate new teaching and learning modalities that utilize computer technology and develop distance learning opportunities to benefit a larger group of students.
- Enhance our current Exercise Science Testing Lab and offer fitness testing options to campus and community members.

In addition, the Fitness Training Program Community Advisory Committee is very active and consistently meets 3 times per year as a group. Each year the committee develops several new goals for the coming year. A few of the committee's goals that are directly linked to this initiative are:

1. The committee will assist in redesigning the Fitness Management class curriculum. Our focus will be on helping students to develop their own Personal Business Plan. Key components that this redesign will include are:

- Assisting students in developing the ability to market themselves in the business environment
- Emphasis on skills in marketing, sales, and people skills which are vital parts of this career path
- Assisting students in developing excellent active listening and communication skills
- Assisting students in developing excellent interview skills
- Creating practical role play activities to help students practice these skills
- Identifying local professionals that are successful in this field and have them present a Profiles in Success lecture to our students

2. Increase Lanes Fitness Training Programs presence in the community through:

- Continuing the Danebo Elementary School fitness day
- Assist with 4-J School District's fitness assessments (PEP Grant) in May 2009
- Plan a community event in May for Exercise is Medicine month
- Assist the YMCA with their Activate America activities

3. Continue to host a Continuing Education workshop at Lane Community College to provide students with a learning opportunity, as well as provide community professionals with CEC opportunities.

4. Continue to enhance new student recruiting efforts by visiting local high schools, visiting local CIM/CAM classes related to this field, attending Lanes Preview Night, and

providing local fitness businesses with information on Lanes Professional Fitness Training Program to help encourage participations from current professionals wishing to further their career through education.

**Describe the resources needed:**

The Division of Health, Physical Education, and Athletics request Carl Perkins Grant funds for Fitness Training Program enhancements including instructional assistants, instructional aids, equipment, computer hardware and software, and curriculum development funds. Detailed amounts are listed below:

**Instructional Assistants:**

Funding from the Carl Perkins Grant for part-time instructional assistants will increase learning opportunities for career technical program students. The instructional assistants will provide valuable instructional support including individual tutoring, assistance during course-related laboratory activities, and additional supervision and training during Co-operative Education internships. These services will increase program students technical skill and potential for employment.

**Program Area Cost**

Instructional Assistants in program core courses and cooperative education sites

- Pay calculated @ \$13.67/hour = \$17,976.05

OPE @ 30.3% = \$5,446.74

- Total: \$23,422.79

**Instructional Aids, Equipment, Computer Hardware and Software:**

Funding for instructional aids, equipment, and computer hardware and software are requested from the Carl Perkins Grant to enhance learning opportunities in Fitness Training Program core courses. This will strengthen career technical students academic and technical skills. Funding for equipment, instructional aids, and computer technology is necessary to increase career technical student opportunities for hands-on experience and will strengthen the academic, vocational, and technical components of the Professional Fitness Training Program.

**Instructional Aids/Equipment ---- Description ---- Total Cost**

- Strength Training Anatomy Posters (3 sets @ \$90 ea.) ---- Each poster depicts a muscle group and 9 exercises to strengthen that area. These illustrations give an inside view of muscles, joints, and skeletal structure to enhance the application of anatomy knowledge to the practice of strength training. \$270

- Shuttle (1) ---- Designed for low-impact Plyometrics, strength training, performance conditioning, and lower-body rehabilitation. This multi-use piece of equipment provides a safe landing area for jumping drills, in the horizontal position. \$6,000
- Complete Muscle Models (2 @ \$3,000 ea.) ---- Complete anatomical figure in a smaller size with removable muscles. Allows for thorough demonstration of muscle locations and insertions/origins. Two models would allow for more hands-on studying time for students during in class activities. \$6,000
- Truestretch Stretch Station (1) ---- This stretch apparatus is a functionally designed leverage system that allows for hundreds of proper stretches in all three planes of motion. This allows for a comprehensive total-body stretch or muscle groups may be isolated for specific focus. Uses the body's natural upright position and 4-point contact for proper body alignment, safety and stability. \$2,500
- Valslides (3 pairs @ \$40 ea.) ---- The Valslide is a pair of discs that provide an unstable training surface that allows you to simulate many slideboard exercises. Can be used to target multiple body parts such as your legs, inner thighs, and glutes all at the same time. Can also be used to stretch and tone shoulders, chest and back. \$120
- Cross Trainers (2 @ \$6,500 ea.) ---- These would update our inventory of fitness equipment. Students would utilize this equipment in their core classes, as well as in co-operative education sites. \$13,000
- Concept II Indoor Rowers (2 @ \$950 ea.) ---- These would update our inventory of fitness equipment. Students would utilize this equipment in their core classes, as well as in co-operative education sites. \$1,900
- Stationary Bike Trainers/Mount (1) ---- This bike mounting apparatus would allow for exercise science testing of cyclist in a laboratory setting on their own road bikes. This would enhance the quality of the data and increase its applicability to the athlete. \$300
- Portable glucose monitors (3 @ \$80 ea.) ---- These would be used in our Exercise Science Testing lab and in our core classes. \$240
- Portable gas analyzer ---- This testing apparatus would allow for a comprehensive aerobic capacity assessment to be completed. Students would utilize this equipment in the Exercise Science Testing lab and core classes. \$12,000

VHI Exercise Programming Software Server Edition ---- The Visual Health Information software program will allow instructors and student interns the opportunity to create visual aids of rehabilitation programs, or exercise programs for students and employees in TERC, FEC, and a variety of other PE classes. Exercise programs can be individualized and printed for each participant. This software would now be made available on an internal department server. \$2,400

\* Computer Server ---- This server is necessary to house the VHI software in a version that would make it accessible to the maximal number of students. \$5,000



Total: \$49,730

A General Fund increase to our part-time faculty budget of \$3,275.74 would be needed for each section of each of these three courses we offer.

**What specific measurable program outcomes do you expect to achieve with this initiative? The outcomes should be specific enough to be measurable. Also, outline the method that will be used to determine the results.**

The outcomes of this initiative are both specific and measurable. Students will benefit from the initiative in a variety of ways including increased work-based learning opportunities through Cooperative Education, better access to state-of-the art fitness and laboratory equipment, exposure to technology based learning aids, training and tutoring from instructional assistants, and access to a diverse curriculum (both in subject and in format).

**The specific and measurable outcomes of this initiative are:**

- \*Increase the number of applicants to our program, including a focus on particular populations (economically disadvantaged, single parent, displaced homemaker, academically disadvantaged, etc.).
- \*Improve student retention and success rates by providing students with strong experience in and an understanding of all aspects of the fitness industry and opportunities to meet the career related learning components of this program.
- \*Continue to place our graduates in industry related jobs by providing students with the opportunity to fully participate in comprehensive school and career development activities and opportunities.
- \*Continue to seek out articulation agreements with 4 year Colleges and Universities to better facilitate the future academic goals of our program graduates.
- \*Continue to assess the learning outcomes of our students and improve our curriculum and work-based learning opportunities to match the demands of the industry.
- \*Increase FTE for the Health, PE, and Athletics Division, as well as the College.
- \*Reach new populations of students.
- \*The online format will enhance students access to program courses, as well as provide an avenue to increase enrollment with community professionals.
- \*Students will become more familiar with technology and online campus resources that are available to support their learning.

We plan to assess the success of these outcomes by developing surveys. One will be to be distributed to our graduates and the other to participants in the newly developed courses. Graduates responses will help us to evaluate our curriculum and ensure that we are teaching applicable and timely knowledge, skills, and abilities as they relate to the fitness industry. New course participants will be able to provide feedback on the teaching methodologies and course content. We will also evaluate our enrollment numbers and our retention numbers from term to term. This information can be used to make necessary changes to our curriculum to enhance participation and retention. A final evaluation tool

will be to continue to seek feedback and input from our advisory board members and local fitness industry leaders. Their feedback is crucial in maintaining the quality of our program and continuing to keep pace with the changes in the fitness industry.

**Department Priority:**

2

**Unit Resources:**

The Health, Physical Education, and Athletics department will continue to provide the resources necessary for the faculty that teach in the program and provide assistance with materials and supplies when budgetary resources are available. The department currently has numerous pieces of exercise science and fitness related equipment that will continue to be available to this program for instruction and learning activities. Curriculum development will be completed by department faculty members with expertise in the subject areas.

**Funding Request: Carl Perkins**

**Is this a Career & Technical Education program approved by the state and offered through Lane for credit?**

Yes

**If not a Career & Technical Education program, does your request provide considerable support for students enrolled in these programs?**

No

**Do you have an advisory committee that meets 2-3 times per year?**

Yes

**If request is for personnel, will funds be used to replace an existing position?**

No

**How will funding this initiative increase or sustain the academic achievement and technical skills attainment (GPA of 2.0 or better) of Career and Technical Education students?**

The FTP student population is very diverse and includes single parents, displaced workers, women in transition, low-income individuals, ESL students, students with disabilities, and others with challenging life circumstances. Students learning styles, abilities, and past experience in the field vary tremendously. As program staff strive to

meet the needs of this varied population, it is clear that providing a diverse instruction team best meets the needs of this diverse student population and creates an inclusive learning culture.

Through the cooperation of instructors and instructional assistances every student receives the contact hours, additional assistance and the compassion that they need in order to be successful. Instructional Assistants provide additional office hours, tutoring sessions, in-class assistance with lab activities, and on-site assistance at cooperative education sites. The quality of students work is enhanced, as is their grasp on key concepts and application of material in the workplace. Program staff continuously strive to provide students with the knowledge, skills, abilities, and self-confidence to be highly successful.

**How will funding this initiative increase or sustain the number of CTE students that graduate or receive a one year certificate from Lane and help prepare the students for employment?**

Work-based learning as a component of post-secondary programs is listed as the most significant source of education and training for fitness-related careers (Bureau of Labor Statistics). This initiative will allow students the chance to apply exercise principles and theories to real-life situations, while under the supervision of qualified, experienced instructors. Students will also gain from strengthened academic components within program core courses, and the requested instructional aids and equipment will facilitate kinesthetic learning styles.

In addition, instructional assistants allow FTP instructors to expand their curriculum and develop additional, quality learning activities for a diverse group of students. Instructional assistants provide the critical supervision and instruction that is required in career technical programs. Both in the classroom and outside of the classroom, these instructional assistants, in cooperation with faculty, enhance the learning opportunities available to FTP students and are able to help ensure the longevity of the program through student retention, graduation, and job placement.

Funding for curriculum development is requested from the Carl Perkins Grant to create new learning opportunities for Fitness Training Program students. These courses will strengthen career technical students academic and practical skills, as well as provide learning opportunities to work with diverse populations in the health and fitness field. The online format would enhance accessibility for non-traditional students and would position Lane Community College to be a resource for continuing education opportunities for graduates.

**EQUIPMENT \$**

49,730

**COMPUTER HARDWARE \$**

5,000

**COMPUTER SOFTWARE \$**

2,400

**MATERIALS & SUPPLIES \$**

0

**CURRICULUM DEVELOPMENT (Hours)**

300

**PART-TIME FACULTY \$**

0

**TIMESHEET STAFF \$**

23,422.79

**TRAVEL \$**

0

**Can this initiative be partially funded?**

Yes

**EQUIPMENT \$**

45000

**(E) Explanation of effect of partial funding:**

The impact of these reductions would be of great magnitude to our program and to the campus as a whole. Our fitness training program not only serves the students currently enrolled in our program and seeking their degree, but in addition over 3,000 campus members (students and staff) benefit from the services provided by our program. By reducing the grant amount for equipment purchases, we would not be able to purchase sufficient lab supplies to adequately run our laboratory classes. More students would have to share each piece of equipment and/or use outdated equipment, thus reducing the amount of quality hands-on learning experience that is so vital in the career technical programs. Our students repeatedly are commended for their superior hands-on skills in the work place and our program has been highlighted because of this experience. By

reducing lab equipment availability, we would be severely impacting the quality of the learning experience.

**COMPUTER HARDWARE \$**

5000

**(CH) Explanation of effect of partial funding:**

This item cannot be partially funded. Without full funding for the new server, the computer software will not be functional. Students will not have access to this resource without the server.

**COMPUTER SOFTWARE \$**

2000

**(CS) Explanation of effect of partial funding:**

A small amount of department resources could be used to help defray the total cost

**MATERIALS & SUPPLIES \$**

0

**(MS) Explanation of effect of partial funding:**

**CURRICULUM DEVELOPMENT (HOURS)**

240

**(CD) Explanation of effect of partial funding:**

A reduction in this area would restrict instructors in the number of hours spent developing and marketing these courses. The instructors doing this curriculum development project will need ample opportunity to learn the process of developing online courses and to ensure that they are of the highest quality to the learners.

**PART-TIME FACULTY \$**

0

**(PF) Explanation of effect of partial funding:**

**TIMESHEET STAFF \$**

20000

**(TS) Explanation of effect of partial funding:**

Partial funding would limit training opportunities for students. By reducing our time sheet employee grant amount, we would be losing valuable teaching assistants in our core classes. Students would receive less assistance in learning and practicing skills necessary for job success. This would severely impact our students that have extenuating life circumstances. Single parent students, low income students, students who are working full time jobs, veterans, displaced workers, and ESL students would most likely experience the greatest impact. Our time sheet employees provide additional out of the classroom time with these student groups who greatly need the additional support to be successful. The college has made clear that supporting these student groups specifically, is a priority. By fully supporting our request, the college will be able to stand behind their goal of student centered learning in a diverse learning environment.

**TRAVEL \$**

0

**(T) Explanation of effect of partial funding:**

**Funding Request: Curriculum Development**

**1. List the following information**

- **Course Numbers (titles if not currently offered)**
- **Instructor Name(s) who will work on the curriculum development**
- **Whether each of the courses is in, or has been through, the curriculum approval process**

1)Course Title: *Physiology of Exercise and Healthy Aging* (course number not yet determined)

2)Course Title: *Biomechanics of Sport and Exercise* (course number not yet determined)

3)Course Title: *Exercise and Cancer Recovery* (course number not yet determined)

Marisa Hastie and Anna Zorn will be working on the curriculum development for these courses. None of these courses has been through the curriculum approval process.

**2. List each course number (or title) and the materials to be created for each class**

- **Instructional goals, objectives, syllabi and outlines**

- **Lab instruction packets**
- **Practice, quiz, presentation &/or demonstration materials**
- **Other (specify)**

\*Instructional goals, objectives, syllabi and outlines

\*Lab instruction packets

\*Practice, quiz, presentation &/or demonstration materials

\*Other (specify)

All course materials will need to be developed for all 3 courses (listed below), including instructional goals, objectives, syllabi, outlines, quizzes, exams, and presentation materials. All three courses would be offered in an online format utilizing Moodle. A brief summary of the anticipated course goals are listed below next to each course.

*\*Physiology of Exercise and Healthy Aging* - This course will apply the science of exercise physiology to an analysis of the aging process and identify the positive effects that regular exercise and physical activity have not only on longevity but also on delaying specific diseases, decreasing morbidity, and increasing quality of life. Key concepts that will be presented include: theories on aging, the aging process, the structural and functional changes that characterize advancing age, exercise programming concerns for the aged, and the benefits of exercise and physical activity.

*\*Biomechanics of Sport and Exercise* - The focus of this class will be application of the physical laws and mechanical aspects governing human motor function. This course will provide students with an understanding of the biomechanical principles of movement and their application to sports and human performance. A review of current strategies/technologies to enhance human performance will also be presented.

*\*Exercise and Cancer Recovery* - This course will provide specific guidelines for cancer exercise intervention and information on how exercise rehabilitation can help clients deal with treatment-related symptoms both during and after treatment. An overview of the etiology and effects of cancer will be provided and information on how to adapt normal exercise assessment and prescription procedures to each client's cancer history and current condition. Students will learn how to adjust exercise according to the ups and downs of treatment and its side effects and how to use exercise to strengthen the body and lessen fatigue rather than depress the immune system. Insight into what clients are experiencing and how to communicate effectively with their physicians will also be discussed.

### **3. List each course number (or title) and give your timeline for beginning and completing each course curriculum development.**

All three courses would begin development during Summer 2009 and we would aim for completion by Fall term 2009.

Course Title: *Physiology of Exercise and Healthy Aging* (course number not yet determined)

Course Title: *Biomechanics of Sport and Exercise* (course number not yet determined)

Course Title: *Exercise and Cancer Recovery* (course number not yet determined)

**4. What are up to 3 departmental instructional goals that are met through the development of curriculum in each class?**

Three departmental goals that would be met through the development of this curriculum are:

- \*Add different formatting to course offerings (on-line courses).
- \*Continue to be innovative in course offerings and maintain a diverse class schedule.
- \*Continue to improve the opportunities and exceptional instruction within the Professional Fitness Training career technical program and prepare qualified and competitive professionals for work within the fitness industry.

**5. List each course number (or title) and give the value of the development of curriculum in each course to other faculty members.**

All three courses (see titles listed below) will be valuable to other department faculty members and colleagues across campus by increasing the resources and courses available to career technical programs and students in general. Specifically we see these courses working in a collaborative manner with the Health Occupations department and the Science Department. The instructors of these courses will work collaboratively with other instructors to discuss the integration of curriculum across disciplines.

\*Course Title: *Physiology of Exercise and Healthy Aging* (course number not yet determined)

\*Course Title: *Biomechanics of Sport and Exercise* (course number not yet determined)

\*Course Title: *Exercise and Cancer Recovery* (course number not yet determined)

**6. List each course number (or title) and say how many students will be served by the development of curriculum in each class.**

*Physiology of Exercise and Healthy Aging* (36 students per term section)

Course Title: *Biomechanics of Sport and Exercise* (36 students per term section)

Course Title: *Exercise and Cancer Recovery* (36 students per term section)

**7. List each course number (or title) and give the specific benefits to students that you expect from the development of curriculum in each class.**



*\*Physiology of Exercise and Healthy Aging* would focus on providing health and fitness professionals with practical information to use in working with the older adult population. This course would be offered in an online format and could serve as directed electives for career technical program students, as well as a distance learning continuing education opportunity for professionals working in the allied health field. This course would also be suitable for LCC students with an interest in the field of preventative health care and exercise science.

*\*Biomechanics of Sport and Exercise* would provide students with an understanding of biomechanical principles of movement and their application to sports and human performance. This course would also be taught in an online format, and as stated above would benefit current students in the Professional Fitness Training Program, working health and fitness professionals and coaches as a continuing education opportunity, and any LCC students with an interest in the field of exercise science. This course is also a common degree requirement at 4-year universities in Exercise Science degree programs. Students would benefit in the transfer process to 4-year programs by having this course already completed.

*\*Exercise and Cancer Recovery* would provide specific guidelines for cancer exercise intervention and information on how exercise rehabilitation can help cancer patients deal with treatment-related symptoms both during and after treatment. Students would learn how to adjust exercise according to the ups and downs of treatment and its side effects and how to use exercise to strengthen the body and lessen fatigue rather than depress the immune system. This course would also be taught in an online format, and as stated above would benefit current students in the Professional Fitness Training Program, Nursing program students, working health and fitness professionals and other health care providers as a continuing education opportunity. This course would also be open to any LCC students with an interest in the field of exercise science.

**8. List each course number (or title) and give the specific benefits for diversity that you expect from the development of curriculum in each class.**

*Physiology of Exercise and Healthy Aging* (course number not yet determined) ---- The Baby Boomer population constitutes approximately 25% of the US population. This portion of our population is facing increased risk of developing diseases associated with physical inactivity and will make a lasting impact on our health care system. It is crucial for professionals in the health and fitness industry to have the knowledge, skill, and ability to assist this population in becoming or remaining physically active as they age. Exercise is one of the most potent preventative medicines available today. This course would allow professionals to become more educated and informed about working with the aging population and to be able communicate the benefits of physical activity with those in this group.

In addition, the online format of this course would allow a more diverse student population to enroll. In particular, this class would allow working professionals, single parents, displaced workers, women in transition, low-income individuals, ESL students, students with disabilities, and others with challenging life circumstances students to gain access to this course.

*Biomechanics of Sport and Exercise* (course number not yet determined)---- This courses

online format would allow a more diverse student population to enroll. In particular, this class would allow working students, working professionals, and distance learning students to gain access to this course.

*Exercise and Cancer Recovery* (course number not yet determined) ---- This course would enhance the learning opportunities available to students and professionals in the health and fitness industry by presenting information on how to effectively prescribe exercise as a part of cancer treatment. Again, this course would benefit the colleges diversity goal by training professionals to work with a diverse population in the work place. In addition, the online format of this course would allow a more diverse student population to enroll. In particular, this class would allow working students, working professionals, and distance learning students to gain access to this course.

**9. List each course number (or title) and give the specific benefits to sustainability that you expect from the development of curriculum in each class.**

All three courses address the concept of sustainability by developing new courses that utilize technology. This format increases accessibility and therefore can increase enrollment and FTE for the college making the institutions instructional mission sustainable over time.

The Exercise Physiology and Healthy Aging course and the Exercise and Cancer Recovery course also address sustainability from a health care standpoint. The health care system is inundated in the country and exercise is readily identified by our government and numerous national health and fitness organizations as a viable form of alternative health care. It is vital that we prepare professionals to utilize exercise as a treatment modality and help to alleviate some of the strain on our ailing health care system.

**10. List each course number (or title) and give the specific effects on distributed learning that you expect from the development of curriculum in each class.**

All three courses (listed below), would embody the concept of distributed learning by:

1) Using the Moodle online system in order for students to have one-stop access to the following materials and resources: 1) the most current version of the course schedule, 2) all course handouts and assignments, 3) reputable websites of interest to students taking this course, 4) course lecture notes, and 5) quizzes and exams.

2) Development of multiple resources for course topics, including lecture, textbook, worksheets, video clips, case studies, group discussion and individual assignments in order to facilitate active learning.

Course Title: *Physiology of Exercise and Healthy Aging* (course number not yet determined)

Course Title: *Biomechanics of Sport and Exercise* (course number not yet determined)

Course Title: *Exercise and Cancer Recovery* (course number not yet determined)

**Hours requested for Curriculum Development funding:**

**Please enter the amount of one of the following:**

- **100 hours maximum for new development.**
- **70 hours maximum for course revision**
- **50 hours for 3-4 credit conversion**
- **other (use if multiple courses addressed in one initiative**

**Do not enter any characters other than numbers and a decimal.**

**How many hours are you requesting? If there are multiple courses addressed in the initiative, please list each course number (or title) and give the number of hours requested for each course.**

Course Title: Physiology of Exercise and Healthy Aging (course number not yet determined) ---- 100 hours ---- Course Title: Biomechanics of Sport and Exercise (course number not yet determined) ---- 100 hours ---- Course Title: Exercise and Cancer Recovery (course number not yet determined) ---- 100

**Can this initiative be partially funded?**

Yes

**Partially funded curriculum development HOURS requested:**

240

**Explanation of effect of partial funding:**

A reduction in this area would restrict instructors in the number of hours spent developing and marketing these courses. The instructors doing this curriculum development project will need ample opportunity to learn the process of developing online courses and to ensure that they are of the highest quality to the learners.

**Funding Request: Technology Fee**

**1. Category of request**

- **Maintain existing technology**
- **Increase student access to technology**
- **New technology**

**Please type in the category of the request in the field below.**

Increase student access to technology

**2. Campus location**

- **Main Campus**
- **Downtown Center**
- **Florence**
- **Cottage Grove**
- **CLC (list specific locations)**

**Please type in the location of the request in the field below.**

Main Campus

**3. Names of the person(s) with more information (if needed):**

Marisa Hastie or Mike Zimmerman

**4a. Budget ORGN**

671201

**4b. Budget PROG**

111000

**5.How many students will benefit per year?**

3000

**6. Describe the benefit?**

The Visual Health Information software program will allow instructors and student interns the opportunity to create visual aids of rehabilitation programs, or exercise programs for participants in TERC, FEC, an a variety of other PE classes. 70 Program students and PE staff and over 3000 students and staff on campus will benefit from access to this software.

**COMPUTER HARDWARE \$**

**COMPUTER SOFTWARE \$**

2400

**STAFFING \$**

**INSTALLATION \$**

**LICENSING \$**

**Can this initiative be partially funded?**

Yes

**COMPUTER HARDWARE \$**

**(CH) Explanation of effect of partial funding:**

**COMPUTER SOFTWARE \$**

2000

**(CS) Explanation of effect of partial funding:**

A small amount of department resources could be used to help defray the total cost.

**STAFFING \$**

**(S) Explanation of effect of partial funding:**

**INSTALLATION \$**

**(I) Explanation of effect of partial funding:**

**LICENSING \$**

**(L) Explanation of effect of partial funding:**