

BERGEN COMMUNITY COLLEGE
Division of Arts, Humanities and Wellness
Department of Wellness/Exercise Science

Course Syllabus

WEX-182, Fitness Measurement & Interpretation

Basic Information about Course and Instructor

Semester and Year:

Course and Section: Fitness Measurement & Interpretation (WEX-182)

Prerequisite: WEX-164 – Exercise Science

Times/Location: TBD

Instructor:

Office Location:

Office Phone:

Office Hours: TBD

COURSE DESCRIPTION:

Fitness Measurement & Interpretation is a course involving analysis of the parameters of fitness, sport performance, and their assessment. Topics include measurement protocols and the quantitative expression of body composition, aerobic capacity and energy expenditure, strength, endurance, flexibility and sport specific elements relative to exercise application. Requirement for Exercise Science Certificate and Degree.

3 hours; 3 credits

GENERAL OBJECTIVE:

The investigation of the many parameters of fitness; their identity, measurement through selected evaluatory procedures, and the interpretation of the measurement toward a meaningful and applicable involvement with an exercise program.

SPECIFIC OBJECTIVES:

- A. To analyze the many parameters which describe and define fitness i.e. aerobic fitness, anaerobic fitness, strength, endurance, body composition power, agility, balance, coordination, etc.
- B. To investigate health-related parameters and performance related parameters of fitness relative to their assessment.
- C. To develop familiarity of equipment used in the measurement of fitness parameters.
- D. To organize and analyze methods and protocols appropriate to the measurement of selected parameters.
- E. To analyze the interpretation of results of selected measurements and their applicability to the individual.

ASSESSMENT CRITERIA:

- A. Students shall define in writing selected variables of fitness and health, i.e. aerobic capacity, muscular strength, etc. and their respective importance.
- B. Students shall demonstrate appropriate procedures in selected protocols used in the development of body composition, aerobic capacity, flexibility, muscle strength and endurance.
- C. Students shall demonstrate in writing the use of a measurement result in the development of an exercise prescription that will change or maintain the selected variable.
- D. Students shall demonstrate, in writing or orally, the meaning of a test result when compared to a standardized norm.

III. COURSE CONTENT:

- A. Parameters of Fitness
 - 1. Identification, definition, description
 - 2. Lifestyle, performance implications
 - 3. Principles of exercise testing
 - 4. Types of assessment - demographics, medical, lifestyle, nutritional, musculoskeletal, cardiovascular, etc.
- B. Guidelines for Exercise Testing
 - 1. Testing responsibilities, liabilities
 - 2. Characteristics of appropriate testing
 - 3. Interpretation of testing
 - 4. Contraindications
- C. Principles of Exercise Testing and Prescription
 - 1. Pre-test: PAR-Q
 - 2. Appropriate tests - specificity; health related; performance related.
 - 3. Physiological factors
 - 4. Psychological factors
 - 5. Testing standards, norms
 - 6. Interpretation and application
- D. Measurement of Parameters
 - 1. Cardiovascular
 - 2. Body Composition
 - 3. Muscular Strength
 - 4. Muscular Endurance
 - 5. Flexibility
 - 6. Performance variables - speed, power, balance, etc.

CLASS PROCEDURES, METHODS:

- A. Lecture, Discussion, Demonstration
- B. Participation in the testing process as technician and as subject
- C. Class assignments - group work
- D. Research, writing, reading assignments

EVALUATION/GRADING:

Letter grades will be determined by the number of points accumulated during the semester. These points are generated from tests, quizzes, and written assignments. The point breakdown is as follows:

A = 198 –	C = 152 - 164
B+ = 187 - 197	D = 132 - 151
B = 176 - 186	R = 0 - 131
C+ = 165 - 175	

There will be no opportunity to make-up missed unscheduled quizzes. Scheduled tests/quizzes must be made-up within one week via appointment with instructor. A calculator is required – cell phone use is unacceptable.

SUGGESTED READING:

ACSM Health Related Physical Fitness Assessment Manual, 2nd edition, Lippincott, 2008.

Coast, Richard et.al. Exercise Physiology Manual, Brown & Benchmark, 1995.

Flood, Dennis K. Practical Math for Health Fitness Professionals, Human Kinetics, 1996.

Maud, Peter J & C. Foster, editors. Physiological Assessment of Human Fitness, Human Kinetics, 1995.

LEARNING FACILITIES & RESOURCES:

- A. Library – books, audio-visual, computers
- B. Fitness Center
- C. Dynamometers, Calipers, Sphygmomanometers
- D. Treadmills, Ergometers
- E. Gymnasium, Pool

SPECIAL FEATURES OF THE COURSE:

Students will be assigned well-designed out of class writing/reading projects during the semester involving journals, research papers, articles, etc. The number and content of assignments are exclusive of writing (essay) required on exams.

The use of the Internet to locate, review and evaluate selected websites appropriate to class content.

GRADING POLICY:

A final grade for the course is based on the student's performance on the required work for the course (writing assignments, examinations, quizzes, class presentations, attendance, etc.) and on his mastery of the material covered in the course. A student's participation may also be evaluated and used in the determination of a final grade.

ATTENDANCE POLICY:

Students are expected to attend punctually every scheduled meeting of each course in which they are registered. Attendance and lateness policies and sanctions are to be determined by the instructor for each section of the course. These will be established in writing on the individual course outline. Attendance will be kept by the instructor for administrative and counseling purposes.

RULES & REGULATIONS:

At the beginning of the academic year, each student is expected to obtain a copy of the College Catalog, Student Handbook, and the Academic Calendar. The catalog contains information about the regulations and procedures essential to student life on campus. Every student is responsible for knowing the information included in the catalog and academic calendar.

STUDENT FACILITIES:

Students are referred to the College Catalog which contains a complete listing and description of available facilities and services including but not limited to: the Silverman Library, Office of Specialized Services, Bookstore, Computer Labs, Tutoring Center, Athletic and Exercise facilities, etc.

Course sequence and content are subject to change without notice as emphasis on course content may vary.