



Credit- Degree applicable
Effective Quarter: Fall 2012 2013

I. Catalog Information

DANC 22K

Theory and Technique of Ballet I

1 Unit(s)

(See general education pages for the requirement this course meets.)

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and ~~273~~; ~~Dance 22-273.~~

~~(Any combination of Dance 22K and 22L, may be taken up to six times for credit for the family of courses.)~~

~~Two~~ **Three** hours lecture-laboratory (~~24~~ **laboratory** (36 hours total per quarter).

Introduction to the discipline and creative art of classical ballet, including **focusing on** the the development of elementary movement a **working** theory and techniques, **vocabulary, exposure** including ballet barre **great works** and elementary center artists from a **global perspective**, floor exercises. **theory and practice of barre and center floor exercises.**

Course Justification: This course meets a general education requirement for De Anza and CSUGE. It belongs on the Liberal Arts A.A. (Arts and Letters Emphasis). This is the first course in basic ballet technique to introduce students to this classic dance form.

Course Philosophy: ~~Introduction The courses in to the discipline the and Dance/Theatre Department are dedicated~~ creative art of classical ballet, including to **making the the connections between** development the elementary movement techniques, a **working** ballet **vocabulary, exposure physical, psychological, and mental health of our students, and great works their individual self expression.** and artists from a **global perspective, theory and practice of barre and center floor exercises.**

[STATEMENT IN EDIT] SLO (1): Analyze and employ basic elements of classical ballet technique.

[ORIGINAL] SLO (1): Perform the basic movements of ballet dance sequences with consistent confidence demonstrating correct rhythms, body placement and coordination's.

[STATEMENT IN EDIT] SLO (2): Perform elementary center floor exercises with proper body placement and coordination.

[ORIGINAL] SLO (2): Identify ballet terminology and movement at a beginning level.

II. Course Objectives

- A. Recognize ballet as an art form through the identification of major historical global origins and international development, major works, and artists.
- B. Analyze and employ basic elements of classical ballet technique

C. Demonstrate increased basic body awareness, concentration skills, awareness and recognize how the basic concepts of exercise, physiology, and movement discipline. and nutrition relate to the ballet dancer.

D. Apply basic exercise physiology and nutrition to ballet technique

III. Essential Student Materials

Leotard, tights, and ballet shoes

IV. Essential College Facilities

Dance studio, media playback and projection facilities

V. Expanded Description: Content and Form

A. Recognize ballet as an art form through the identification of major historical global origins and international development, major works, and artists.

1. Historical overview: works and artists of the past and present King Louis XIV
Anna Pavlova, Vaslav Nijinsky, Serge Diaghilev, George Balanchine, Jerome Robbins
Arthur Mitchell, Contemporary artist of diversity (examples: Alonzo King, Choo San Goh)
2. The aesthetics of ballet
3. The relationship of ballet to other major dance forms

B. Analyze and employ basic elements of classical ballet technique

1. Alignment: weight placement (center of gravity), outward rotation of hips, parallel alignment of hips and shoulders, and care of the body
2. Spatial orientation: directions of the studio and, corresponding stage directions (Italian School)
3. Time orientation: the relationship of music and dance: beat, metre, and tempo
4. The importance of line
5. The five positions of the feet, legs and arms
6. The contact points of the leg: cou-de-pied, demi-height, retire, and passe
7. Head positions used in classical ballet: erect, raised, lowered, turned, and inclined
8. Principles of balance

C. Demonstrate increased basic body awareness, concentration skills, awareness and recognize how the basic concepts of exercise, physiology, and movement discipline. and nutrition relate to the ballet dancer.

1. Body awareness and carriage **carriage; coordination and movement**
2. Identify theories of anaerobic vs. aerobic exercise
 - a. Develop cardiovascular endurance
 - b. Employ ~~anaerobic~~ **aerobic** training
 - c. Improve efficiency and body mechanics
3. Comprehend nutritional concepts with special notes regarding specific needs for various ~~populations~~ **populations: youth, adults, older adults, males and females**
 - a. Recognize a balanced diet for wellness

- b. Appreciate the importance of eating before class
- c. Appreciate the importance post class food and fluids
- 4. Comprehend flexibility concepts with special notes regarding specific needs for various populations: youth, adults, older adults, males and females
 - a. Employ techniques for overall flexibility
 - b. Identify theories about stretching during warm-up
 - c. Identify theories about stretching post exercise
- 5. ~~Comprehend~~ **Learn and use techniques to** techniques to avoid common injuries to **the ballet dancer.**
- 8. ~~Five of the Cecchetti body facings (Epaulement)~~
 - ~~a. a-la-quatrieme-devant (4th front)~~
 - ~~b. a-la-quatrieme-derriere (4th back)~~
 - ~~c. croise-devant (crossed in front)~~
 - ~~d. croise-derriere (crossed in back)~~
 - ~~e. a-la-seconde (second)~~
- 1. ~~Everyday values to be derived from the study of ballet~~
 - ~~b. Concentration skills~~
 - ~~c. Coordination~~
 - ~~d. Discipline~~
- 2. ~~Ballet as a profession/hobby~~
 - ~~a. Apply basic exercise physiology and nutrition to ballet technique~~

VI. Assignments

- A. Reading assignments from text, reference materials and handouts
- B. ~~Writing~~ **Written critique of live ballet performance.**
- C. **Preparation of final skill demonstration of basic ballet techniques.**
 - 1. ~~Critique of live dance performances~~
 - 2. ~~Review of dance media or readings~~

~~ZDEL-C.~~Other

- 1. ~~Practice of technique and skills covered in class~~
- 2. ~~Viewing of selected dance media~~

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
 Quiz and examination review performed in class
 Homework and extended projects
 Field observation and field trips
 Collaborative learning and small group exercises

VIII. Methods of Evaluating Objectives

- A. Written quiz covering ballet terminology, theory, and history **evaluated on correctness and accuracy of description/explanation**
- B. ~~Written critiques~~ **Evaluation of and student's critique reviews of dance live performance based on ability to logically state performances and support and express opinion of the dance performance.**
- C. Evaluation of student's execution of basic ballet technique (final skill exam on selected barre and center floor work)
- ~~ZDEL-B. Instructor's observation of student's technical development and facility within the ballet idiom~~

IX. Texts and Supporting References

- A. ~~Texts: Examples of Primary Texts and References~~ **Examples of Primary Texts and References**
 - 1. *Fahey, Thomas; Insel, Paul' Roth, Walton. "Fit and Well". ~~8th~~ **10th** Brief Ed. Boston, Ma: McGraw Hill Publishing Co, ~~2009~~. **2011**.
 - 2. *Hammond, Sandra Noll. "Ballet Basics". New York, NY: McGraw-Hill, 2008.
- B. ~~References: Examples of Supporting Texts and References~~ **Examples of Supporting Texts and References**
 - 1. Chmelar, Robin. "Diet for Dancers: A Complete Guide to Nutrition and Weight Control". Princeton, NJ: Princeton Book Co Pub, 1995.
 - 2. Ellison, Nancy. "The Ballet Book (Learning and Appreciating the Secrets of Dance American Ballet Theatre)". New York, NY: Universe Publishing, 2003.
 - 3. Grant, Gail. "Technical Manual and Dictionary of Classical Ballet". New York: Dover Publications, 1982.
 - 4. ~~http://www.nycballet.com~~ **American Ballet Theatre Dictionary: <http://www.abt.org/education/dictionary/index.html>**
 - 5. ~~http://www.abt.org~~



Credit- Degree applicable
Effective Quarter: Fall 2012 2013

I. Catalog Information

DANC 22L

Theory and Technique of Ballet II

2 1 Unit(s)

(See general education pages for the requirement this course meets.)

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Dance ~~22K-22K~~.

~~(Any combination of Dance 22K and 22L, may be taken up to six times for credit for the family of courses.)~~

~~Four~~ **Three** hours lecture-laboratory ~~(48~~ **laboratory (36** hours total per quarter).

~~Principles~~ **Study** and practice of the discipline and creative art of classical ballet, combining: traditional techniques **focusing on** barre and Russian, French, center floor and **work, along with** Italian schools; the acquisition of floor ~~a work~~ **emphasizing alignment/centering, motion through space, working ballet vocabulary at a beginning level.** and the acquisition of an intermediate working ballet vocabulary.

Course Justification: This course meets a general education requirement for De Anza and CSUGE. It belongs on the Liberal Arts A.A. (Arts and Letters Emphasis). This is an introductory course building on basic ballet technique to further train students in vocabulary and technique of this classic dance form.

Course Philosophy: Principles The courses in and practice the the **Dance/Theatre Department are dedicated to making** discipline and creative art of classical ballet, combining: traditional techniques the **connections between the physical, psychological, of Russian, French, and mental health and Italian schools; barre of our students, and center floor work emphasizing alignment/centering, motion through space, their individual self expression.** and the acquisition of an intermediate working ballet vocabulary.

[ORIGINAL] SLO (1): Perform beginning-level ballet dance sequences demonstrating correct rhythms, body placement and coordination.

[ORIGINAL] SLO (2): Identify ballet terminology and movement at a beginning level.

II. Course Objectives

- A. ~~Design an individual pre-class warm-up sequence focusing on specific needs~~ **Apply classical ballet theory at the barre beginning level, demonstrating body awareness with proper alignment and any injuries and coordination.**
- B. ~~Apply classical~~ **Perform beginning** ballet theory at an intermediate level, demonstrating body awareness with proper alignment, rhythm, musical responsiveness, **dance sequences moving through space employing turns and jumps.** and heightened spatial awareness
- C. ~~Recognize~~ **Further apply** ballet and an art form through exposure **practice basic concepts of exercise, physiology to works and and nutrition artists in as they relate the field to the**

ballet **dancer**.

~~D. Apply basic concepts of exercise, physiology and nutrition to ballet technique~~

III. Essential Student Materials

Leotard and tights, ballet slippers

IV. Essential College Facilities

Dance studio with media playback and projection facilities

V. Expanded Description: Content and Form

- A. Apply classical ballet theory at ~~an intermediate level~~, **the barre beginning level**, level, demonstrating body awareness with ~~alignment, rhythm, musical responsiveness, proper alignment and coordination. and heightened spatial awareness~~

 1. Demonstrate proper alignment
 - a. Classical body placement
 - b. The outward rotation of hips
 2. Identify time orientations demonstrating musicality. Relate movement to music, hearing, identifying and responding to ~~beat, meter, tempo, phrasing, beat. and accents~~

- B. **Perform beginning ballet dance sequences moving through space employing turns and jumps.**
 1. Identify spatial orientations feeling space, filling space, moving through space
 - a. Identify directions of the studio (Italian School) and corresponding stage directions
 - b. Demonstrate the eight Cecchetti body facings (epaulement)
 - c. The use of spotting in multiple turns
 2. **Demonstrate rhythmic and musical responsiveness: listening, hearing, recognizing and responding**
- C. ~~Apply basic and of practice basic concepts of exercise, physiology and technique nutrition as they relate to the ballet dancer.~~ **Further apply basic and of practice basic concepts of exercise, physiology and technique nutrition as they relate to the ballet dancer.**
 1. Identify theories of anaerobic vs. aerobic exercise
 2. Develop cardiovascular endurance
 3. Comprehend nutritional concepts with special notes regarding specific needs for various ~~populations~~ **populations: youth, adults, older adults, highly trained athletes, males and females**
 - a. Recognize a balanced diet for wellness
 - b. Appreciate the importance of eating before class
 - c. Appreciate the importance post class food and fluids
 - d. Recognize a balanced diet for wellness
 4. Comprehend ~~nutritional~~ **flexibility** concepts with special notes regarding specific needs for various populations: youth, adults, older adults, highly trained athletes, males and females
 - a. Employ techniques for overall flexibility

- b. Identify ~~theories and incorporate~~ about theories about stretching during warm-up
- c. Identify ~~theories and incorporate~~ about theories about stretching **into** post exercise
- 5. Comprehend flexibility concepts with special notes regarding specific needs for various populations: youth, adults, older adults, males **Further identify and use techniques to avoid common injuries to the ballet dancer. and females**

ZDEL-A.~~Design an individual pre-class warm-up sequence focusing on specific needs and any injuries~~

- ~~1. Gentle stretches and activating body parts~~
- ~~2. Placement exercises~~
- ~~3. Centering exercises~~

ZDEL-B.~~Recognize ballet as an art form through exposure to works and artists in the field~~

- ~~1. Examine and discuss selected ballet compositions and performances~~
- ~~2. Compare and contrast traditional and contemporary ballet techniques~~
 - ~~e. Appreciate the importance of eating before class~~
 - ~~f. Appreciate the importance post class food and fluids~~
 - ~~a. Comprehend techniques to avoid common injuries~~

VI. Assignments

A. Reading assignments from text, reference materials and handouts

B. Written critique of live ballet performance.

C. Preparation of a beginning-level ballet skills sequence for demonstration of basic ballet barre and floor techniques.

ZDEL-A.~~In class~~

ZDEL-A.

- ~~1. Practice of techniques, skills and terminology~~
- ~~2. Reproduce intermediate ballet combination's~~

ZDEL-B.~~Other~~

- ~~1. Reading: selected readings from text, references, and handouts~~
- ~~2. Review of dance media and published articles~~
- ~~3. Critique of live dance performance~~

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
 Quiz and examination review performed in class
 Homework and extended projects
 Field observation and field trips
 Collaborative learning and small group exercises
 Discussion and problem solving performed in class

VIII. Methods of Evaluating Objectives

- A. Final examination covering ballet terminology, theory and questions from reading assignments **evaluated for correctness and accuracy.**
- B. ~~Written paper:~~ **Evaluation of critique student's critique of live performance, responses from performance based on ability to logically state, support dance media and published articles and express opinion of the dance performance using ballet terminology learned in the course.**
- C. ~~Observation~~ **Evaluation of student's technical development execution of and basic facility within the ballet technique on ballet selected barre idiom, evaluation and of center floor work for proper execution student's skills on final particle exam and movement examination composition. of student's movement composition studies**

IX. Texts and Supporting References

A. ~~Text Examples of Primary Texts and References~~ **Examples of Primary Texts and References**

1. Fahey, Thomas; Insel, Paul; Roth, Walton. Fit and Well. ~~8th~~ **10th** Brief Ed. Boston, Ma: McGraw Hill Publishing Co, ~~2009.~~ **2011.**
2. Hammond, Sandra Noll. Ballet: Beyond the Basics. New York, NY: McGraw-Hill, 2008.

B. ~~References Examples of Supporting Texts and References~~ **Examples of Supporting Texts and References**

1. Chmelar, Robin. Diet for Dancers: A Complete Guide to Nutrition and Weight Control. Princeton, NJ: Princeton Book Co Pub, 1995.
2. Ellison, Nancy. The Ballet Book (Learning and Appreciating the Secrets of Dance American Ballet Theatre). New York, NY: Universe Publishing, 2003.
3. Grant, Gail. Technical Manual and Dictionary of Classical Ballet. New York: Dover Publications, 1982.
4. **American Ballet Theatre Dictionary: <http://www.abt.org/education/dictionary/index.html>**
- ~~4. abt.org~~
- ~~5. nycballet.com~~



Credit- Degree applicable
Effective Quarter: Fall 2013

I. Catalog Information

DANC 52M

Theory and Technique of Ballet III

1 Unit(s)

(See general education pages for the requirement this course meets.)

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Dance 22K.

Three hours laboratory (36 hours total per quarter).

Study and practice of the discipline and creative art of classical ballet, combining: traditional techniques center floor work emphasizing alignment/centering, motion through space, and the acquisition of an intermediate working ballet vocabulary.

Course Philosophy: The courses in the Dance/Theatre Department are dedicated to making the connections between the physical, psychological, and mental health of our students, and their individual self expression.

SLO (1): Perform at an intermediate level ballet dance sequences with consistent confidence demonstrating coordination.

SLO (2): Identify ballet terminology and movement at an intermediate level.

II. Course Objectives

- A. Design an individual pre-class warm-up sequence focusing on specific needs and any injuries
- B. Apply classical ballet theory at an intermediate level, further demonstrating increased body awareness with proper alignment, rhythm, musical responsiveness, and heightened spatial awareness
- C. Recognize ballet as an art form through exposure to works and artists in the field
- D. Further apply and practice basic concepts of exercise, physiology and nutrition to ballet technique

III. Essential Student Materials

Leotard and tights, ballet slippers

IV. Essential College Facilities

Dance studio with media playback and projection facilities

V. Expanded Description: Content and Form

- A. Design an individual pre-class warm-up sequence focusing on specific needs and any injuries
 - 1. Gentle stretches and activating body parts

2. Placement exercises
3. Centering exercises
- B.** Apply classical ballet theory at an intermediate level, further demonstrating increased body awareness with proper alignment, rhythm, musical responsiveness, and heightened spatial awareness
 1. Demonstrate proper alignment
 - a. Classical body placement
 - b. The outward rotation of hips
 2. Identify time orientations demonstrating musicality. Relate, at a more advanced level of technique, movement to music, hearing, identifying and responding to beat, meter, tempo, phrasing, and accents
 3. Identify spatial orientations feeling space, filling space, moving through space
 - a. Identify directions of the studio (Italian School) and corresponding stage directions
 - b. Demonstrate, at an intermediate level and with confidence, the eight Cecchetti body facings (epaulement)
 - c. Confidently demonstrate spotting in multiple turns
- C.** Recognize ballet as an art form through exposure to works and artists in the field
 1. Examine and discuss selected ballet compositions and performances
 2. Compare and contrast traditional and contemporary ballet techniques
- D.** Further apply and practice basic concepts of exercise, physiology and nutrition to ballet technique
 1. Identify theories of anaerobic vs. aerobic exercise
 2. Develop and practice cardiovascular endurance
 3. Comprehend nutritional concepts with special notes regarding specific needs for various populations: youth, adults, older adults, highly trained athletes, males and females
 - a. Recognize a balanced diet for wellness
 - b. Appreciate the importance of eating before class
 - c. Appreciate the importance post class food and fluids
 4. Comprehend flexibility concepts with special notes regarding specific needs for various populations: youth, adults, older adults, highly trained athletes, males and females
 - a. Consistently employ techniques for overall flexibility
 - b. Identify and incorporate theories about stretching during warm-up
 - c. Identify and incorporate theories about stretching into post exercise practice
 5. Consistently use techniques to avoid common injuries to the ballet dancer.

VI. Assignments

- A.** Reading assignments from text, reference materials and handouts
- B.** Written critique of live ballet performance.
- C.** Preparation of an intermediate-level ballet skills combination for demonstration.

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
 Quiz and examination review performed in class
 Homework and extended projects
 Field observation and field trips
 Collaborative learning and small group exercises
 Discussion and problem solving performed in class

VIII. Methods of Evaluating Objectives

- A.** Written final, covering ballet dance terminology based on readings and evaluated on correct usage of terms and accuracy of description.
- B.** Evaluation of student's accurate and proper execution of technique for ballet dance combinations
- B.** Evaluation of critique of live performance based on a more sophisticated ability to logically state and support opinions and impressions of the dance form.

IX. Texts and Supporting References

A. Examples of Primary Texts and References

- 1. Fahey, Thomas; Insel, Paul; Roth, Walton. Fit and Well. 10th Brief Ed. Boston, Ma: McGraw Hill Publishing Co, 2011.
- 2. Hammond, Sandra Noll. Ballet: Beyond the Basics. New York, NY: McGraw-Hill, 2008.

B. Examples of Supporting Texts and References

- 1. Chmelar, Robin. Diet for Dancers: A Complete Guide to Nutrition and Weight Control. Princeton, NJ: Princeton Book Co Pub, 1995.
- 2. Ellison, Nancy. The Ballet Book (Learning and Appreciating the Secrets of Dance American Ballet Theatre). New York, NY: Universe Publishing, 2003.
- 3. Grant, Gail. Technical Manual and Dictionary of Classical Ballet. New York: Dover Publications, 1982.
- 4. American Ballet Theatre Dictionary: <http://www.abt.org/education/dictionary/index.html>



Credit- Degree applicable
Effective Quarter: Fall ~~2012~~ **2013**

I. Catalog Information

DANC 23A Theory and Technique of Contemporary (Modern) Dance I 1 Unit(s)

(See general education pages for the requirement this course meets.)

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and ~~273~~ **273**.

~~(Any combination of Dance 23A and 23B, may be taken up to six times for credit for the family of courses.)~~

~~Two~~ **Three** hours lecture-laboratory (~~24~~ **laboratory (36** hours total per quarter).

Introduction to the discipline and creative art of contemporary ~~dance~~ **modern** dance. Students will ~~exposed~~ be ~~to~~ **instructed in one particular** a basic movement theory, technique contemporary **dance technique**, (i.e. Limon, Graham Hawkins etc.) and repertoire from global ~~artists~~.

Course Justification: This course meets a general educational requirement for De Anza and CSUGE. It belongs on the Liberal Arts A.A. (Arts and Letters emphasis). This is the first course in basic contemporary dance technique and theory as an introduction to this dance form.

Course Philosophy: ~~Introduction The courses in to the discipline the and Dance/Theatre Department are dedicated creative art of contemporary dance. Students will be exposed to making the connections between the to physical, psychological, a basic movement theory, technique and mental health of and our students, repertoire from global artists. and their individual self expression.~~

[ORIGINAL] SLO (1): Perform the the essential elementary exercise sequences of a contemporary dance technique,(i.e. Limon).

[ORIGINAL] SLO (2): Perform contemporary dance combinations on an introductory level.

II. Course Objectives

- ~~A. Recognize and employ fundamental~~ **Analyze** contemporary dance **as an art form**
~~contemporary dance theory and technique~~
- ~~B. Demonstrate creative application of~~ **Recognize and employ at a basic level dance**
~~techniques and problem-solving through movement exploration dance theory and techniques~~
~~and in one contemporary style improvisation~~
- ~~C. Analyze~~ **Apply principles basic exercise physiology** and contemporary dance as an art
~~form and nutrition to contemporary dance technique~~
- ~~D. Apply principles basic exercise physiology and nutrition to contemporary dance technique~~

III. Essential Student Materials

Leotard, any style, and footless or stirrup tights

IV. Essential College Facilities

Dance studio with audio facilities

V. Expanded Description: Content and Form

A. Analyze ~~and~~ contemporary dance as an art form ~~form~~

1. Historical overview of contemporary dance to include artists such as: Isadora Duncan , Jose Limon, Denis-Shawn, Lester Horton, Humphrey-Weidman, Katherine Dunham, Martha Cunningham, Twyla Tharp, Paul Taylor, and at least one contemporary experimentalist
2. Approaches to contemporary choreography
3. Contemporary dance in relationship to other contemporary art forms

B. Recognize and employ ~~fundamental~~ **at a basic level** ~~contemporary dance theory~~ **contemporary dance technique** theory and **techniques in one contemporary style**

1. Floor work: alignment; breathing; articulation and strengthening of individual body parts; flexion and extension; rotation; stretches; pulses; contraction and release, and combination's of movement in seated and lying positions
2. Standing center floor work: balancing, roll-downs, side stretches and pulses, ~~isolation's, contractions, isolations,~~ body release, drops, tilts, brushes and other footwork, swings, jumps; fall and recovery, ~~recovery,~~ **suspension** ~~suspension;~~ ~~arabesque, attitude;~~ and **turns.** and ~~turns~~
 - a. Employ basic locomotor movements: walk, run, hop, jump, slide, leap, gallop, singly or in combinations. (~~i.e., triplet~~) ~~forward, backwards, side to side~~
 - b. Demonstrate simple turns
3. Demonstrate body ~~awareness~~ **awareness: alignment and weight placement, use of turnout and parallel positions, axial motions on and off center, and fall/recovery (use of gravity).**
4. Identify spatial ~~orientations~~ **orientations: stage directions and directions in space (up, down, side, front, back, diagonals, and combinations).**

C. Apply principles basic exercise physiology and nutrition to contemporary dance technique

1. Differentiate theories of anaerobic vs. aerobic exercise
 - a. Develop cardiovascular endurance
 - b. Employ ~~anaerobic~~ **aerobic** training
2. Comprehend nutritional concepts with special notes regarding specific needs for various populations: youth, adults, older adults, highly trained athletes, males and females.
 - a. Recognize a balanced diet for wellness
 - b. Appreciate the importance eating before class
 - c. Appreciate the importance of post class food and fluids
3. Comprehend flexibility concepts with special notes regarding specific needs for various populations: youth, adults, older adults, males and females.
 - a. Employ techniques for overall flexibility
 - b. Identify theories about stretching during warm-up

- c. Identify theories about stretching post exercise
- 4. Comprehend techniques to avoid common injuries to **the contemporary dancer**.
 - a. alignment and weight placement

ZDEL-C. ~~Demonstrate creative application of dance techniques and problem-solving through movement exploration and improvisation~~

3. Moving through space

- ~~b. Explore qualities of movement: percussive, sustained, vibratory, swinging, suspended, released~~
- ~~b. use of turnout and parallel positions~~
- ~~c. axial motions on and off-center~~
- ~~d. contraction/release (use of muscles and joints)~~
- ~~e. fall/recovery (use of gravity)~~
- a. stage directions
- b. space as a tangible volume shaped by the dancer
- c. exploring directions in space: up, down, side, front, back, diagonals, and combinations thereof
- d. negative space
- 6. Time orientation: Listening and hearing, recognizing and responding to pulse, meter, tempo, and abstract sounds: Rhythm: the relationship of movement to sound and music
 - a. Sensory stimuli; i.e., music and sound, texture, taste, special lighting
 - b. Abstract concepts of time/space/shape, breath/energy (i.e., slow and fast motion)
 - c. Theme, mood, emotions, words
 - d. Props, set pieces, extensions of the human form
 - e. Completion of given movement phrase
 - f. Combining given movement in a new way
 - c. Improve efficiency and body mechanics

VI. Assignments

- A. Reading **Selected readings from text, references and handouts.**
- B. ~~Writing~~ **Writing: Weekly journals and critique of a contemporary live dance performance.**
- C. ~~Outside work~~ **Preparation of a dance sequence for demonstration.**
 - 1. Text
 - 2. References
 - 3. Handouts
 - 1. Critique of live dance performance
 - 2. Review of dance videos or reading
 - 3. Weekly journal

- ~~1. Practice of technique and skills covered in class (movement problem-solving)~~
- ~~2. Attendance at a dance performance~~
- ~~3. Viewing of selected dance videos~~

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
 Quiz and examination review performed in class
 Field observation and field trips
 Collaborative learning and small group exercises
 Collaborative projects

VIII. Methods of Evaluating Objectives

- A. Written final, covering contemporary dance terminology, theory, and history **evaluated on correct usage of terms and accuracy.****
- B. Evaluation of student's weekly journal and critique of live performance ~~and/or video~~ **based on student's ability to logically state and support statements.****
- C. ~~Final evaluation~~ **Evaluation of student's accurate and proper execution of execution of basic technique (skill test using video tape) contemporary dance techniques within a dance sequence****

~~**ZDEL-A.** Observation of student's technical development and facility within the contemporary dance idiom~~

~~**ZDEL-E.** Creative project: movement problem-solving~~

IX. Texts and Supporting References

~~A. Text: **Examples of Primary Texts and References**~~ **Examples of Primary Texts and References**

- ~~1. Fahey, Thomas; Insel, Paul~~ **Paul Roth, Walton. Fit and Well. 8th 10th Brief Ed. Boston, MA: McGraw-Hill Publishing Co, 2009. 2011.**
- ~~2. Penrod, James/Plastino, Janice Gudde. The Dancer Prepares: Modern Dance for Beginners. New York, NY: McGraw-Hill College. 2008.~~

~~B. References: **Examples of Supporting Texts and References**~~ **Examples of Supporting Texts and References**

- ~~1. Anderson, Jack. Ballet & Modern Dance, a concise history. Princeton, New Jersey: Princeton Book Co. 1992.~~
- ~~2. Cass, John. Dancing Through History. New York, NY: Prentice Hall, 1993.~~
- ~~3. Chmelar, Robin. Diet for Dancers: A Complete Guide to Nutrition and Weight Control. Princeton, NJ: Princeton Book Co. Pub, 1995.~~
- ~~4. McDonagh, Dan. The Rise and Fall and Rise of Modern Dance. New York: Outerbridge & Dienstfrey, 1984.~~
- ~~5. **Dance Performance Resources: www.baydance.com, LiveSV.com, www.voicesofdance.com**~~
- ~~5. **dance.net**~~
- ~~6. **danceonline.com**~~

7. ~~dancepages.com~~



Credit- Degree applicable
Effective Quarter: Fall ~~2012~~ 2013

I. Catalog Information

DANC 23B Theory and Technique of Contemporary (Modern) Dance II 2 1 Unit(s)

(See general education pages for the requirement this course meets.)

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Dance 23A.

~~(Any combination of Dance 23A and 23B, may be taken up to six times for credit for the family of courses.)~~

~~Four~~ **Three** hours lecture-laboratory ~~(48~~ **laboratory (36** hours total per quarter).

~~The~~ **Study** and ~~and~~ **practice** of ~~at the~~ discipline and creative art of contemporary dance focusing on practice, theory, technique, and movement explorations ~~developing a working intermediate in time and space, in dance two vocabulary.~~ contemporary dance **techniques, (i.e. Limon and Graham etc.)**

Course Justification: This course meets a general education requirement or DeAnza and CSUGE. It belongs on the Liberal Arts A.A. (Arts and Letters emphasis). This course offers additional contemporary dance techniques that develop student skills.

Course Philosophy: The discipline courses in creative art the Dance/Theatre Department are dedicated to making the connections between the physical, psychological, of contemporary dance focusing on practice, theory, technique, and movement explorations and time mental health and space, developing a working intermediate contemporary dance vocabulary. of our students, and their individual self expression.

[STATEMENT IN EDIT] SLO (1): Perform beginning contemporary dance exercises demonstrating correct body placement and coordination for specific techniques.

[ORIGINAL] SLO (1): Perform intermediate contemporary dance sequences with consistent confidence, demonstrating correct rhythms, body placement and coordination's.

[STATEMENT IN EDIT] SLO (2): Perform beginning contemporary dance combinations in two different techniques.

[ORIGINAL] SLO (2): Identify contemporary dance terminology and movement at an intermediate level.

II. Course Objectives

- ~~A. Construct an individual pre-practice warm-up sequence~~ **Employ correct body alignment in contemporary exercise sequences.**
- ~~B. Employ correct body alignment~~ **Explore space and shape as a tangible volume shaped and defined by the dancer's presence.**

- ~~C. Identify the body as an instrument of non-verbal communication~~ **Demonstrate rhythmic and musical responsiveness**
- ~~D. Examine and relate to time and space as tangible entities~~ **Identify fundamental movement patterns from two contemporary dance traditions.**
- ~~E. Demonstrate rhythmic~~ **Further apply and musical responsiveness practice basic exercise physiology and nutrition to dance techniques for the contemporary dancer.**
- ~~F. Employ contemporary dance technique and terminology~~
- ~~G. Explore human movement through improvisation techniques~~
- ~~H. Apply technique and demonstrate problem-solving skills through improvisation techniques in new movement combinations~~
- ~~I. Identify a fundamental pattern of historical development, including major works and artists from the diverse contemporary dance traditions~~
- ~~J. Apply basic exercise physiology and nutrition to dance technique~~

III. Essential Student Materials

Leotard, any style, and footless or stirrup tights

IV. Essential College Facilities

Dance studio with audio facilities

V. Expanded Description: Content and Form

- A. Employ correct body alignment in contemporary exercise sequences.**
 - 1. Use of parallel and turned-out body positions
 - 2. Weight placement in relationship to gravity: drops, tilts, and falls
 - 3. Use of center and off-center movement
- B. Examine Explore space relate to time and shape as and a tangible as volume shaped tangible entities and defined by the dancer's presence.**
 - 1. Employ the concepts of paths and ~~traile~~ **trails, spatial density, and directions in space and on the stage.**
 - 2. Explore shape: the use of bending, stretching, twisting to create positive and negative shapes in space
 - a. Shape as 3-dimensional form
 - b. Shape, weight, and mass
 - c. Putting shape into motion
- C. Demonstrate rhythmic and musical responsiveness**
 - 1. Listening hearing, recognizing and responding to pulse
 - 2. Meter, tempo and phrasing **in basic dance sequences within the two styles**
- D. Employ Identify fundamental movement patterns from two contemporary dance technique and terminology contemporary dance traditions.**
 - 1. Standing center floor work:
 - a. Articulation of individual body parts

- b. Use of torso: contractions and release
 - c. Change of levels
 - d. Center/off-center patterns
- 2. Floor work: lying or seated
 - a. Alignment
 - b. Stretching and lengthening
 - c. Strengthening
- 3. Moving across the floor
 - a. Re-locating in space, elevation and turns in dance patterns
 - b. Qualities of movement: percussive, sustained, vibratory, swinging, suspended, sustained, collapsed
 - c. Employ gravity using the techniques of fall and recovery
 - d. Apply movement initiated with localized body parts
 - e. Movement phrases based on time, shape, space concepts
- E. Apply Further apply basic and physiology practice basic exercise physiology and technique nutrition to dance techniques for the contemporary dancer.**
 - 1. Differentiate theories of anaerobic vs. aerobic exercise
 - a. Develop cardiovascular endurance
 - b. Employ anaerobic aerobic training
 - c. Improve efficiency and body mechanics
 - 2. Comprehend nutritional concepts with special notes regarding specific needs for various populations: youth, adults, older adults, highly trained athletes, males and females
 - a. Recognize a balanced diet for wellness
 - b. Appreciate importance of eating before class
 - c. Appreciate importance of post class food and fluids
 - 3. Comprehend flexibility concepts with special notes regarding specific needs for various populations: youth, adults, older adults, males and females
 - a. Employ techniques for overall flexibility
 - b. Identify theories about stretching during warm-up
 - c. Identify theories about stretching post exercise
 - 4. Comprehend techniques and practice to techniques to avoid common injuries to the contemporary dancer.
 - ~~1. Explore space as a tangible volume shaped and defined by the dancer's presence~~
 - ~~a. Identify the concept of spatial density~~
 - ~~b. Identify directions in space and on the stage~~
- ~~ZDEL F. Construct an individual pre-practice warm-up sequence~~
 - ~~1. Alignment exercises~~
 - ~~2. Concentration and visualization exercises~~

3. Pre-limbering
4. Special consideration of personal physical problem areas

~~ZDEL-G.~~Identify the body as an instrument of non-verbal communication

1. Communicating emotion, relationship, and theme through movement:
 - a. Abstracting movement from daily life (functional gestures)
 - b. Communicating Non-literal concepts such as abstract design, shape, rhythmic explorations

~~ZDEL-H.~~Explore human movement through improvisation techniques

1. Employ non-literal concepts such as time/shape/space/force
2. Employ literal concepts such as ideas, events, words, state of being, etc

~~ZDEL-I.~~Apply technique and demonstrate problem-solving skills through improvisation techniques in new movement combinations

1. Creation of variations on a given theme
2. Creation of movement pattern through combining given phrases with original material

~~ZDEL-J.~~Identify a fundamental pattern of historical development, including major works and artists from the diverse contemporary dance traditions

1. View and discuss selected contemporary dance videos
2. View and discuss a minimum of one live dance performance

VI. Assignments

A. Reading Readings from texts, selected references and handouts.

B. Writing: Weekly journals and a critique of a contemporary live dance performance.

C. Preparation of dance sequences in each contemporary style for demonstration.

1. Text
2. References
3. Handouts

~~ZDEL-B.~~Writing

1. Critique of live dance performance
2. Review of dance videos or readings
3. Weekly dance journal

~~ZDEL-C.~~Outside work

1. Practice of technique and skills covered in class
2. Viewing of selected dance videos
3. Movement problem-solving assignments

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
 Discussion and problem solving performed in class

Quiz and examination review performed in class
 Homework and extended projects
 Field observation and field trips
 Collaborative learning and small group exercises
 Collaborative projects

VIII. Methods of Evaluating Objectives

- A. ~~Observation~~ Written final, covering of student's technical development contemporary dance and terminology for two styles based on readings evaluated on correct usage facility within the contemporary dance idiom of terms and accuracy of description.**
- B. ~~Critical reviews~~ Evaluation of of student's weekly journals dance concerts, films, videos, and critique of workshops; notes turned in live performance based on an ability to logically state outside reading, and submission and of support opinions a journal and statements.**
- C. ~~Final skill test on selected~~ Evaluation of student's accurate and contemporary proper execution of dance techniques terminology, theory, contemporary dance and sequences for two styles dance styles.**
- D. ~~Creative project: composition of short movement study~~**

IX. Texts and Supporting References

A. ~~Examples of Required Texts and References~~ Examples of Primary Texts and References

1. Lewis, Daniel. "The Illustrated Dance Technique of Jose Limon." Princeton,NJ: A Dance Horizons Book, Princeton Book Co. 1999.
2. Penrod, James/ Plastino, Janice Gudde. "The Dancer Prepares: Modern Dance for Beginners":New York,NY:McGraw &"Hill College. 2004.
3. Fahey,Thomas; Insel, Paul' Roth, Walton. "Fit and Well." ~~8th~~ **10th** Brief Ed. Boston, Ma: McGraw Hill Publishing Co, ~~2009.~~ **2011.**

B. Examples of Supporting Texts and References

1. Banes, Sally. "Terpsichore In Sneakers: Post- Modern Dance." Hanover,NH:Wesleyan University Press, 2002.
2. Ambrosio, Nora. "Learning about Dance (An introduction to Dance as an Art form and Entertainment)." New York NY:Kendall/Hunt Publishing Co.1999.
3. McDonagh, Dan. "The Rise and Fall and Rise of Modern Dance." NewYork:Outerbridge&Dienstfrey,1984.
4. Cass, John. "Dancing Through History." New York, NY: Prentice Hall,1993.
5. Chmelar, Robin. "Diet for Dancers: A Complete Guide to Nutrition and Weight Control." Princeton,NJ: Princeton Book Co Pub, 1995
6. Selected articles from Dance Magazine.
7. **Dance Performance Resources: www.baydance.com, LiveSV.com, www.voicesofdance.com**
7. ~~dance.net~~
8. ~~danceonline.com~~
9. ~~dancepages.com~~



Credit- Degree applicable
Effective Quarter: Fall 2013

I. Catalog Information

DANC 53C Theory and Technique of Contemporary (Modern) Dance III 1 Unit(s)

(See general education pages for the requirement this course meets.)

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Dance 23A or 23B.

Three hours laboratory (36 hours total per quarter).

The discipline and creative art of contemporary dance focusing on practice, theory, technique, and movement explorations in time and space, developing a working intermediate dance vocabulary in three contemporary dance techniques(i.e. Limon, Graham, Dunham).

Course Justification: This course meets a general education requirements for DeAnza and CSUGE. It belongs on the Liberal Arts A.A. (Arts and Letters emphasis). This course offers additional contemporary dance techniques that develop student skills.

Course Philosophy: The courses in the Dance/Theatre Department are dedicated to making the connections between the physical, psychological, and mental health of our students, and their individual self expression.

SLO (1): Perform intermediate contemporary dance exercises with consistent confidence demonstrating correct rhythms, body placement and coordination in three techniques.

SLO (2): Perform intermediate contemporary dance combinations in three different techniques.

II. Course Objectives

- A.** Construct an individual pre-practice warm-up sequence
- B.** Employ and practice further correct body alignment within the three different contemporary techniques
- C.** Identify the body as an instrument of non-verbal communication
- D.** Further explore space and shape as a tangible volume defined by the dancer's presence within the three techniques.
- E.** Further develop and demonstrate rhythmic and musical responsiveness
- F.** Compare and contrast contemporary dance technique and terminology across three techniques
- G.** Explore human movement through improvisation techniques
- H.** Further apply and practice basic exercise physiology and nutrition to dance technique

III. Essential Student Materials

Leotard, any style, and footless or stirrup tights

IV. Essential College Facilities

Dance studio with audio facilities

V. Expanded Description: Content and Form

- A.** Construct an individual pre-practice warm-up sequence
 1. Alignment exercises
 2. Concentration and visualization exercises
 3. Pre-limbering
 4. Special consideration of personal physical problem areas
- B.** Employ and practice further correct body alignment within the three different contemporary techniques
 1. Use of parallel and turned-out body positions
 2. Weight placement in relationship to gravity: drops, tilts, and falls
 3. Use of center and off-center movement
- C.** Identify the body as an instrument of non-verbal communication
 1. Communicating emotion, relationship, and theme through movement:
 2. Abstracting movement from daily life (functional gestures)
 3. Communicating non-literal concepts such as abstract design, shape, rhythmic explorations
- D.** Further explore space and shape as a tangible volume defined by the dancer's presence within the three techniques.
 1. Employ the concepts of paths and trails; spatial density, and directions in space and on the stage.
 2. Explore shape: the use of bending, stretching, twisting to create positive and negative shapes in space
 - a. Shape as 3-dimensional form
 - b. Shape, weight, and mass
 - c. Putting shape into motion
- E.** Further develop and demonstrate rhythmic and musical responsiveness
 1. Listening hearing, recognizing and responding to pulse
 2. Further practice in meter, tempo and phrasing compared across the three techniques.
- F.** Compare and contrast contemporary dance technique and terminology across three techniques
 1. Standing center floor work:
 - a. Articulation of individual body parts
 - b. Use of torso: contractions and release
 - c. Change of levels

- d. Center/off-center patterns
- 2. Floor work: lying or seated
 - a. Alignment
 - b. Stretching and lengthening
 - c. Strengthening
- 3. Moving across the floor
 - a. Re-locating in space, elevation and turns in dance patterns
 - b. Qualities of movement: percussive, sustained, vibratory, swinging, suspended, sustained, collapsed
 - c. Employ gravity using the techniques of fall and recovery
 - d. Apply movement initiated with localized body parts
 - e. Movement phrases based on time, shape, space concepts
- G. Explore human movement through improvisation techniques
 - 1. Employ non-literal concepts such as time/shape/space/force
 - 2. Employ literal concepts such as ideas, events, words, state-of-being, etc
- H. Further apply and practice basic exercise physiology and nutrition to dance technique
 - 1. Differentiate theories of anaerobic vs. aerobic exercise
 - a. Develop cardiovascular endurance
 - b. Employ aerobic training
 - c. Improve efficiency and body mechanics
 - 2. Comprehend nutritional concepts with special notes regarding specific needs for various populations: youth, adults, older adults, highly trained athletes, males and females
 - a. Recognize a balanced diet for wellness
 - b. Appreciate importance of eating before class
 - c. Appreciate importance of post class food and fluids
 - 3. Comprehend flexibility concepts with special notes regarding specific needs for various populations: youth, adults, older adults, males and females
 - a. Employ techniques for overall flexibility
 - b. Use theories about stretching during warm-up
 - c. Use theories about stretching post exercise
 - 4. Actively practice techniques to avoid common injuries to the contemporary dancer.

VI. Assignments

- A. Readings from texts, selected references and handouts.
- B. Writings: Weekly journals and a critique of a contemporary live performance.
- C. Preparation of dance sequences in each contemporary style for demonstration.

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
 Discussion and problem solving performed in class
 Quiz and examination review performed in class
 Homework and extended projects
 Field observation and field trips
 Collaborative learning and small group exercises
 Collaborative projects

VIII. Methods of Evaluating Objectives

- A.** Written final, covering contemporary dance terminology for two styles based on readings evaluated on correct usage of terms and accuracy of description.
- B.** Evaluation of student's weekly journals and critique of live performance based on a more sophisticated ability to logically state and support opinions and impressions of the dance form.
- C.** Evaluation of student's accurate and proper execution of contemporary dance sequences for three dance techniques.

IX. Texts and Supporting References

A. Examples of Primary Texts and References

- 1. Lewis, Daniel. "The Illustrated Dance Technique of Jose Limon." Princeton, NJ: A Dance Horizons Book, Princeton Book Co. 1999.
- 2. Penrod, James/ Plastino, Janice Gudde. "The Dancer Prepares: Modern Dance for Beginners":New York,NY:McGraw â€“Hill College. 2004.
- 3. Fahey,Thomas; Insel, Paul' Roth, Walton. "Fit and Well." 10th Brief Ed. Boston, Ma: McGraw Hill Publishing Co, 2011.

B. Examples of Supporting Texts and References

- 1. Banes, Sally. "Terpsichore In Sneakers: Post- Modern Dance." Hanover,NH:Wesleyan University Press, 2002.
- 2. Ambrosio, Nora. "Learning about Dance (An introduction to Dance as an Art form and Entertainment)." New York NY:Kendall/Hunt Publishing Co.1999.
- 3. McDonagh, Dan. "The Rise and Fall and Rise of Modern Dance." NewYork:Outerbridge&Dienstfrey,1984.
- 4. Cass, John. "Dancing Through History." New York, NY: Prentice Hall,1993.
- 5. Chmelar, Robin. "Diet for Dancers: A Complete Guide to Nutrition and Weight Control." Princeton,NJ: Princeton Book Co Pub, 1995
- 6. Selected articles from Dance Magazine.
- 7. Dance Performance Resources: www.baydance.com, LiveSV.com, www.voicesofdance.com



Credit- Degree applicable
Effective Quarter: Fall ~~2012~~ **2013**

I. Catalog Information

DANC 37A **Theory and Technique of Jazz Dance I** **1 Unit(s)**

(See general education pages for the requirement this course meets.)

Advisory: English Writing ~~200~~ **211** and Reading ~~200~~ **211** (or Language Arts ~~200~~, **211**), or English as a Second Language ~~261~~, ~~262~~ **272** and ~~and~~ **273**. ~~263~~.

~~(Any combination of Dance 37A and 37B, may be taken up to six times for credit.)~~

~~Two~~ **Three** hours lecture-laboratory (~~24~~ **laboratory** **(36** hours total per quarter).

Introduction to the discipline and creative art of jazz dance. Body conditioning, exposure to the history of major ~~international influences~~, **American** artists, and ~~and~~ **their** works. The development of a working vocabulary; and practice of ~~basic~~ **elementary** jazz ~~dance~~ techniques.

Course Justification: This course meets a general education requirement for DeAnza and CSUGE. It belongs on the Liberal Arts A.A (Arts and Letters emphasis). This is the first course in elementary jazz dance technique to introduce students to the dance form.

Course Philosophy: ~~Introduction The to~~ **courses in the discipline the and Dance/Theatre Department are dedicated** ~~creative art of jazz dance. Body conditioning, exposure to~~ **making the connections between the the physical, psychological, history and major international influences, artists, mental health of our students, and works. and The their individual self expression.** ~~development of a working vocabulary; and practice of basic techniques.~~

[STATEMENT IN EDIT] SLO (1): Perform essential elementary exercise sequences of a jazz dance technique.

[ORIGINAL] SLO (1): Perform the basic steps of beginning jazz dance sequences with consistent confidence, demonstrating correct rhythms, body placement and coordination's.

[STATEMENT IN EDIT] SLO (2): Perform jazz dance combinations at an introductory level.

[ORIGINAL] SLO (2): Identify beginning jazz dance terminology and movements.

II. Course Objectives

- A.** Recognize jazz dance as an art form through the identification of the global historical development, major works and artists
- B.** Define and employ basic jazz dance vocabulary and techniques that increase functional range of motion and core muscular strength
- C.** ~~Explore human movement through jazz~~ **Apply basic exercise physiology and nutrition to dance improvisation dance technique**
- D.** ~~Apply dance theory and technique to problem solving and creation of original dance phrases.~~

~~E. Apply basic exercise physiology and nutrition to dance technique~~**III. Essential Student Materials**

Leotard, any style, and footless or stirrup tights; jazz shoes preferred. Jazz pants and leg-warmers optional, but must be formfitting

IV. Essential College Facilities

Dance studio with media playback and projection facilities

V. Expanded Description: Content and Form

- A.** Recognize jazz dance as an art form through the identification of the global historical development, major works and artists
 1. Historical overview: artists of the past and present to include: **include some of these artist:**
 - a. William Henry Lane "Master Juba"
 - b. Jack Cole
 - c. Frank Manning
 - d. Katherine Dunham
 - e. Jerome Robbins
 - f. Bob Fosse
 - g. Eleo Pomare
 - h. Afro- Cuban and Brazilian influences
 - i. At least one contemporary jazz dance creator and/or performer
 2. The relationship of jazz dance to jazz music
- B.** Define and employ basic jazz dance vocabulary and techniques that increase functional range of motion and core muscular strength
 1. Develop and employ floor exercises and stretches
 - a. Alignment and weight placement
 - b. The use of turnout and parallel positions
 - c. Center and off-center movement
 - d. Moving from the inside out
 2. Jazz positions of the feet and arms as based on other techniques, with jazz stylization
 3. Principles of movement such as balance and shift of weight
 4. Spatial orientation:
- C.** Apply basic exercise physiology and nutrition to dance technique
 1. Theories of anaerobic vs. aerobic exercise
 - a. Developing cardiovascular endurance
 - b. Anaerobic training
 - c. Improving efficiency and body mechanics

2. Nutritional concepts with special notes regarding specific needs for various populations: youth, adults, older adults, highly trained athletes, males and females
 - a. Balanced diet for wellness
 - b. Eating before class
 - c. Post class food and fluids
3. Flexibility concepts with special notes regarding specific needs for various populations: youth, adults, older adults, males and females
 - a. Techniques for overall flexibility
 - b. Theories about stretching during warm-up
 - c. Theories about stretching post exercise
4. Techniques to avoid common injuries
- ~~3. The relationship of jazz dance to modern dance, ballet, and other dance styles~~
- ~~2. Develop and employ barre exercises and stretches~~

ZDEL-C.~~Explore human movement through jazz dance improvisation~~

1. Body awareness
 - a. ~~Stage directions~~
 - b. ~~Using space as a barre~~
 - c. ~~Moving through space aggressively~~
 - d. ~~The use of level~~
 - e. ~~Dimension~~
- ~~5. Time orientation: the relationship of jazz music and dance; hearing and responding to beat, metre and tempo~~

ZDEL-D.~~Apply dance theory and technique to problem solving and creation of original dance phrases.~~

1. ~~Standing center Floor work developing body awareness : roll downs, stretches and rotations, isolations, plie and releve, brushes, leg swings, port de bras, contractions, turns, passe, lunge, developpe, arabesque, attitude, jumps, and other~~
2. ~~Seated Floor work developing the core stabilizing muscles: alignment technique, stretches, contractions, hinge, arches, splits, spinal rotation, extensions, isolations, relaxation, and other~~
3. ~~Across the floor work developing balance: jazz walks, basic locomotor movement with jazz stylization, (i.e. walk, run, hop, jump, slide, leap, gallop, pas de bourre, kicks, turns, triplet, jazz square, pivot and short patterns)~~
4. ~~Basic center floor jazz dance choreography developing coordination.~~

VI. Assignments

- A. Assigned readings from reference material and handouts, covering the various jazz dance styles, their origins, characteristics and development.
- B. Writing assignment of two page paper analyzing live dance performance.
- C. Weekly practice of specific jazz dance combinations at a beginning level.

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
 Quiz and examination review performed in class
 Collaborative learning and small group exercises

VIII. Methods of Evaluating Objectives

- A. Evaluation of written quiz covering terminology and theory from reading assignments regarding ~~Jazz Jazz~~ dance origins, characteristics and development. ~~and development.~~
- B. Evaluation of written paper analyzing a live dance performance, for completeness, clarity and content.
- C. Evaluation of student's mid-term and final performances of specific jazz dance combinations, analyzing skill development and facility.

IX. Texts and Supporting References

A. Examples of Primary Texts and References

1. *Fahey, Thomas; Insel, Paul; Roth, Walton. "Fit and Well". 9th Brief Ed. Boston, Ma: McGraw Hill Publishing Co, 2011.
2. *Kan, Esther, and Minda Goodman Kraines. "Jump Into Jazz". Boston, Ma: McGraw Hill Publishing Co, 2004.

B. Examples of Supporting Texts and References

1. Cass, John. "Dancing Through History". New York, NY: Prentice Hall, 1993.
2. Chmelar, Robin. "Diet for Dancers: A Complete Guide to Nutrition and Weight Control". Princeton, NJ: Princeton Book Co Pub, 1995.
3. Hatchett, Frank/Gitlin, Nancy Myers. "Frank Hatchett's Jazz Dance". Champaign, IL: Human Kinetics, 2000.
4. Stearns, Marshall Winslow and Stearns, Jean. "Jazz Dance: the story of American Vernacular Dance". New York, NY: Da Capo, 1994.



Credit- Degree applicable
Effective Quarter: Fall 2012 2013

I. Catalog Information

DANC 37B

Theory and Technique of Jazz Dance II

2 1 Unit(s)

(See general education pages for the requirement this course meets.)

Prerequisite: Dance 37A.

Advisory: English Writing ~~200~~ **211** and Reading ~~200~~ **211** (or Language Arts ~~200~~, **211**), or English as a Second Language ~~261~~, ~~262~~ **272** and ~~and 273~~. ~~263~~.

~~(Any combination of Dance 37A and 37B, may be taken up to six times for credit.)~~

~~Four~~ **Three** hours lecture-laboratory ~~(48~~ **laboratory (36** hours total per quarter).

Exploring elements of time, space, shape and motion as related to jazz dance. ~~Body on conditioning, exposure to Body international~~ **Body on conditioning to artists, increase functional range and works. The development of motion and a core muscular strength. Exposure working vocabulary in significant to major international styles; influences, artists, practice and works. intermediate level techniques.**

Course Justification: This course meets a general education requirement or DeAnza and CSUGE. It belongs on the Liberal Arts A.A. (Arts and Letters emphasis). This course offers additional jazz dance techniques that develop student skills.

Course Philosophy: Exploring elements The courses in time, space, shape the Dance/Theatre Department are dedicated and motion as related to making the connections between the physical, psychological, to jazz dance. Body conditioning, exposure and major international influences, artists, mental health of our students, and works. and The their individual self expression. development of a working vocabulary in significant jazz dance styles; and practice of intermediate level techniques.

[STATEMENT IN EDIT] SLO (1): Perform the essential beginning exercise sequences of a jazz dance technique.

[ORIGINAL] SLO (1): Perform the steps of intermediate jazz dance sequences with consistent confidence, demonstrating correct rhythms, body placement and coordination's.

[STATEMENT IN EDIT] SLO (2): Perform the steps of beginning jazz dance sequences with confidence, demonstrating correct rhythms, body placement and coordination.

[ORIGINAL] SLO (2): Identify intermediate jazz dance terminology, steps and historical styles.

II. Course Objectives

- A. Apply intermediate beginning jazz dance theory and techniques that increase functional range of motion and core muscular strength.**
- B. Define and employ intermediate jazz dance vocabulary and techniques that increase**

functional range of motion and core muscular strength

- C. Assess and recognize jazz dance as an international art form through exposure to major influences, ~~artists of jazz works~~, dance **styles**.
- D. Apply basic exercise physiology and nutrition to dance technique

III. Essential Student Materials

Leotard any style, and footless or stirrup tights; jazz shoes preferred. Jazz pants and leg-warmers optional, but must be formfitting

IV. Essential College Facilities

Dance studio with media playback and projection facilities

V. Expanded Description: Content and Form

- A. Apply ~~intermediate~~ **beginning** jazz dance theory and techniques that increase functional range of motion and core muscular strength.
 - 1. Creating a jazz line
 - a. Breaking the vertical ballet line
 - b. Use of arms, weight, and placement
 - c. Use of space
 - d. Use of the floor
 - e. Use of parallel, turned-out, and turned-in positions
 - 2. Dance as a non-verbal language; communicating through movement
 - a. Abstracting movement from daily life; rhythm in gesture and motion
 - b. Emotion, mood, relationship, theme
 - c. Non-literal motivations such as design, shape, space, time, style
 - 3. Distinctive jazz dance qualities: energy, strength, restrained explosiveness, aggressiveness, pizzazz, and sensuality
 - 4. Physical exploration of the musical qualities of jazz
 - a. Syncopation and unusual use of accent
 - b. Poly-rhythms
 - c. Legato line
 - 5. Center floor: layouts, fall and recovery, contractions, isolations, port de bras, outside and inside pirouette, adagio work
 - 6. Floor work: alignment, centering, lengthening, stretching and strengthening techniques
 - 7. Across-the-floor: stylized walks, port de bras, isolations, battements, turns, jumps, and patterns of increasing complexity and length
- B. Apply basic exercise physiology and nutrition to dance technique
 - 1. Theories of anaerobic vs. aerobic exercise
 - a. Developing cardiovascular endurance
 - b. Anaerobic training

- c. Improving efficiency and body mechanics
- 2. Nutritional concepts with special notes regarding specific needs for various populations: youth, adults, older adults, highly trained athletes, males and females.
 - a. Balanced diet for wellness
 - b. Eating before class
 - c. Post class food and fluids
- 3. Flexibility concepts with special notes regarding specific needs for various populations: youth, adults, older adults, males and females.
 - a. Techniques for overall flexibility
 - b. Theories about stretching during warm-up
 - c. Theories about stretching post exercise
- 4. Techniques to avoid common injuries
- ~~8. Combinations in various jazz styles: (may be selected from the following according to individual instructor's choice: contemporary, African, Latin, Lyrical, Blues/spiritual/gospel, Early jazz, Dixieland, swing, ragtime)~~
- ~~9. Jazz dance improvisation based on a variety of stimuli such as music, props, set pieces, poetry, gesture, style, etc.~~
- ~~**ZDEL-C. Assess and recognize jazz dance as an art form through exposure to major international influences, artists and works.**~~
- ~~1. Readings, viewings and discussions of selected jazz dance styles~~
 - ~~a. Contemporary~~
 - ~~b. African~~
 - ~~c. Latin~~
 - ~~d. Lyrical~~
 - ~~e. Blues/spiritual/gospel~~
 - ~~f. Early jazz: Dixieland, Swing, Ragtime~~
- ~~2. Viewing and discussion of a minimum of one live dance performance~~
- ~~**ZDEL-D. Define and employ intermediate jazz dance vocabulary and techniques that increase functional range of motion and core muscular strength**~~
- ~~6. Composition of individual and/or small group dance combination~~

VI. Assignments

- A. Assigned readings from reference material and handouts, covering the various jazz dance styles, their origins, characteristics **styles.** and development.
- B. Writing assignment of two page paper analyzing live dance performance.
- C. Weekly practice of **in preparation for specific jazz specific combinations skill demonstration at an intermediate** of jazz dance combinations at **a beginning** level.

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
 Discussion and problem solving performed in class
 Quiz and examination review performed in class
 Collaborative learning and small group exercises

VIII. Methods of Evaluating Objectives

- A. Evaluation of written quiz covering terminology and theory from reading assignments regarding ~~jazz jazz~~ dance origins, characteristics and development.
~~and development.~~
- B. Evaluation of written paper analyzing a live dance performance to determine completeness, ~~coherency,~~
~~and coherency, and depth~~ depth of analysis.
- C. Evaluation of student's mid-term and final performances of specific jazz dance combinations, analyzing skill development
~~and~~ and facility.

IX. Texts and Supporting References

- A. Examples of Primary Texts and References
 - 1. *Fahey, Thomas; Insel, Paul' Roth, Walton. "Fit and Well". ~~9th~~ **10th** Brief Ed. Boston, Ma: McGraw Hill Publishing Co, 2011.
 - 2. *Kan, Esther, and Minda Goodman Kraines. "Jump Into Jazz". Boston, Ma: McGraw Hill Publishing Co, 2004.
- B. Examples of Supporting Texts and References
 - 1. Cass, John. "Dancing Through History". New York, NY: Prentice Hall, 1993.
 - 2. Chmelar, Robin. "Diet for Dancers: A Complete Guide to Nutrition and Weight Control". Princeton, NJ: Princeton Book Co Pub, 1995.
 - 3. Coker, Jerry. "Listening to Jazz". Englewood Cliffs, NJ: Prentice-Hall, Inc., 1978.
 - 4. Giordano, Gus. "Anthology of American Jazz Dance". Evanston, IL: Orion Publishing House, 1975.
 - 5. Hatchett, Frank/Gitlin, Nancy Myers. "Frank Hatchett's Jazz Dance". Champaign, IL: Human Kinetics, 2000.
 - 6. Sabatine, Jean. "Basic Styles and Techniques of Jazz Dance". Haldwick, NJ: Hoctor Dance Records, 1969.
 - 7. Stearns, Marshall Winslow and Stearns, Jean. "Jazz Dance: the story of American Vernacular Dance". New York, NY: Da Capo, 1994.



Credit- Degree applicable
Effective Quarter: Fall 2013

I. Catalog Information

DANC 57C

Theory and Technique of Jazz Dance III

1 Unit(s)

(See general education pages for the requirement this course meets.)

Prerequisite: Dance 37A or 37B.

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Dance 37A or 37B.

Three hours laboratory (36 hours total per quarter).

Exploring elements of time, space, shape and motion as related to jazz dance. Body conditioning, exposure to major international influences, artists, and works. The practice and development of a working of jazz dance technical, vocabulary at an intermediate level.

Course Justification: This course meets a general education requirement or DeAnza and CSUGE. It belongs on the Liberal Arts A.A. (Arts and Letters emphasis). This course offers additional jazz dance techniques that develop student skills at an intermediate/advanced level.

Course Philosophy: The courses in the Dance/Theatre Department are dedicated to making the connections between the physical, psychological, and mental health of our students, and their individual self expression.

II. Course Objectives

- A. Define and employ intermediate jazz dance theories and techniques that further increase the functional range of motion and core muscular strength of the dancer.
- B. Define and employ intermediate jazz dance vocabulary and techniques that increase functional range of motion and core muscular strength
- C. Assess and recognize jazz dance as an art form through exposure to major international influences, artists and works.
- D. Apply basic exercise physiology and nutrition to dance technique

III. Essential Student Materials

Leotard any style, and footless or stirrup tights; jazz shoes preferred. Jazz pants and leg-warmers optional, but must be formfitting

IV. Essential College Facilities

Dance studio with media playback and projection facilities

V. Expanded Description: Content and Form

- A. Define and employ intermediate jazz dance theories and techniques that further increase the

functional range of motion and core muscular strength of the dancer.

1. Creating a jazz line
 - a. Breaking the vertical ballet line
 - b. Use of arms, weight, and placement
 - c. Use of space
 - d. Use of the floor
 - e. Use of parallel, turned-out, and turned-in positions
 2. Dance as a non-verbal language; communicating through movement
 - a. Abstracting movement from daily life; rhythm in gesture and motion
 - b. Emotion, mood, relationship, theme
 - c. Non-literal motivations such as design, shape, space, time, style
 3. Distinctive jazz dance qualities: energy, strength, restrained explosiveness, aggressiveness, pizzazz, and sensuality
 4. Physical exploration of the musical qualities of jazz
 - a. Syncopation and unusual use of accent
 - b. Poly-rhythms
 - c. Legato line
 5. Center floor: layouts, fall and recovery, contractions, isolations, port de bras, outside and inside pirouette, adagio work
 6. Floor work: alignment, centering, lengthening, stretching and strengthening techniques
 7. Across-the-floor: stylized walks, port de bras, isolations, battements, turns, jumps, and patterns of increasing complexity and length
 8. Combinations in various jazz styles: (may be selected from the following according to individual instructor's choice: contemporary, African, Latin, Lyrical, Blues/spiritual/gospel, Early jazz, Dixieland, swing, ragtime)
 9. Jazz dance improvisation based on a variety of stimuli such as music, props, set pieces, poetry, gesture, style, etc.
- B. Assess and recognize jazz dance as an art form through exposure to major international influences, artists and works.**
1. Readings, viewings and discussions of selected jazz videos.
 - a. Contemporary
 - b. African
 - c. Latin
 - d. Lyrical
 - e. Blues/spiritual/gospel
 - f. Early jazz: Dixieland, Swing, Ragtime
 2. Viewing and discussion of a minimum of one live jazz dance performance
- C. Apply basic exercise physiology and nutrition to dance technique**

1. Theories of anaerobic vs. aerobic exercise
 - a. Developing cardiovascular endurance
 - b. Anaerobic training
 - c. Improving efficiency and body mechanics
2. Nutritional concepts with special notes regarding specific needs for various populations: youth, adults, older adults, highly trained athletes, males and females.
 - a. Balanced diet for wellness
 - b. Eating before class
 - c. Post class food and fluids
3. Flexibility concepts with special notes regarding specific needs for various populations: youth, adults, older adults, males and females.
 - a. Techniques for overall flexibility
 - b. Theories about stretching during warm-up
 - c. Theories about stretching post exercise
4. Techniques to avoid common injuries

VI. Assignments

- A. Assigned readings from reference material and handouts, covering the various jazz dance styles, their origins, characteristics and development.
- B. Writing assignment of two page paper analyzing live dance performance.
- C. Weekly practice of specific jazz dance combinations at an intermediate level.

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
 Discussion and problem solving performed in class
 Quiz and examination review performed in class
 Collaborative learning and small group exercises

VIII. Methods of Evaluating Objectives

- A. Evaluation of written quiz covering terminology and theory from reading assignments regarding jazz dance origins, characteristics and development.
- B. Evaluation of written paper analyzing a live dance performance to determine completeness, coherency, and depth of analysis.
- C. Evaluation of student's mid-term and final performances of specific jazz dance combinations, analyzing skill development and facility.

IX. Texts and Supporting References

A. Examples of Primary Texts and References

1. *Fahey, Thomas; Insel, Paul' Roth, Walton. "Fit and Well". 10th Brief Ed. Boston, Ma: McGraw Hill Publishing Co, 2011.
2. *Kan, Esther, and Minda Goodman Kraines. "Jump Into Jazz". Boston, Ma: McGraw Hill

Publishing Co, 2004.

B. Examples of Supporting Texts and References

1. Cass, John. "Dancing Through History". New York, NY: Prentice Hall, 1993.
2. Chmelar, Robin. "Diet for Dancers: A Complete Guide to Nutrition and Weight Control". Princeton, NJ: Princeton Book Co Pub, 1995.
3. Coker, Jerry. "Listening to Jazz". Englewood Cliffs, NJ: Prentice-Hall, Inc., 1978.
4. Giordano, Gus. "Anthology of American Jazz Dance". Evanston, IL: Orion Publishing House, 1975.
5. Hatchett, Frank/Gitlin, Nancy Myers. "Frank Hatchett's Jazz Dance". Champaign, IL: Human Kinetics, 2000.
6. Sabatine, Jean. "Basic Styles and Techniques of Jazz Dance". Haldwick, NJ: Hocter Dance Records, 1969.
7. Stearns, Marshall Winslow and Stearns, Jean. "Jazz Dance: the story of American Vernacular Dance". New York, NY: Da Capo, 1994.



Credit - Not Degree Applicable

Effective Quarter: Fall 2013

I. Catalog Information

MATH 217

Integrated Statistics 1

10 Unit(s)

Prerequisite: Qualifying score on the Math Placement Test within last calendar year; or Mathematics 210 or equivalent with a grade of C or better.

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Ten hours lecture (120 hours total per quarter).

This is the first quarter of two in the Statway sequence. This sequence covers concepts and methods of statistics with an emphasis on data analysis. Topics include methods for collecting data, graphical and numerical descriptive statistics, correlation, simple linear regression, non-linear models and basic concepts of probability. The course introduces the student to applications in engineering, business, economics, medicine, education, the sciences, and those pertaining to issues of contemporary interest. Where appropriate, the contributions to the development of statistics by men and women from diverse cultures will be introduced. This sequence is recommended for students with majors that require no mathematics beyond freshman-level statistics. It is not appropriate for students with majors in math, science, computer science or business, nor for students desiring to transfer to a UC or private university.

Course Justification: This course is the first of a two-quarter Statway sequence. It accelerates the time needed by students to complete a transfer-level statistics course by integrating essential concepts from algebra into the study of statistics. This sequence is appropriate for students with majors that require no mathematics beyond freshman-level statistics. It is not appropriate for students with majors in math, science, computer science or business.

SLO (1): Organize, analyze, and utilize appropriate methods to draw conclusions based on sample data by constructing and/or evaluating tables, graphs, and numerical measures of characteristics of data.

SLO (2): Analyze and describe data distributions through the study of probability theory.

SLO (3): Evaluate real-world situations and apply linear, quadratic and exponential function models appropriately.

II. Course Objectives

- A.** Explore statistical techniques and process statistical information in order to make decisions about the reliability of a statement, claim or fact.
- B.** Examine the nature of uncertainty and randomness and set up data collection methods that are free of bias
- C.** Organize, display, summarize, and interpret data using graphical and statistical techniques
- D.** Use probability to model and understand randomness

- E. Develop, throughout the course as applicable, systematic problem solving methods
- F. Develop numeracy skills
- G. Examine linear relationships and describe their meaning in the context of a problem
- H. Examine bivariate data
- I. Examine non-linear models
- J. Apply statistical concepts and methods to a variety of contemporary applications such as

III. Essential Student Materials

Graphing calculator and/or appropriate software such as Microsoft Excel

IV. Essential College Facilities

Computer laboratory

V. Expanded Description: Content and Form

- A. Explore statistical techniques and process statistical information in order to make decisions about the reliability of a statement, claim or fact.
 - 1. Recognize that statistics is an applied branch of mathematics and a unique discipline
 - 2. Use proper statistical techniques for gathering data
 - 3. Access published statistical information in a variety of formats
 - 4. Understand how statistics uses mathematical logic to measure uncertainty
 - 5. Identify the major components of statistics: descriptive and inferential
- B. Examine the nature of uncertainty and randomness and set up data collection methods that are free of bias
 - 1. The origins of randomness in antiquity and its difference from deterministic models
 - 2. The need to model uncertainty
 - 3. Data and sampling methods
- C. Organize, display, summarize, and interpret data using graphical and statistical techniques
 - 1. Graphical techniques for data: stem-and-leaf plot, histogram, boxplot
 - 2. Descriptions of the shape of data: symmetrical or skewed
 - 3. Descriptions of the center of data: mean, median and mode
 - 4. Descriptions of variation of data: range, variance and standard deviation
 - 5. Descriptions of the location of data: quartile, percentile, z score and interquartile range
 - 6. Identification of outliers
- D. Use probability to model and understand randomness
 - 1. The historical origins of probability theory in 17th century Europe
 - 2. Modeling random outcomes
 - a. Sample spaces and events
 - b. Contingency tables

3. Conditional probability
4. Independence
- E. Develop, throughout the course as applicable, systematic problem solving methods
 1. Formulate a question
 2. Identify appropriate data
 3. Devise a data collection strategy
 4. Collect, summarize and display data
 5. Draw a conclusion
 6. Interpret the solution in context
- F. Develop numeracy skills
 1. Compare numbers using inequality symbols
 2. Investigate the absolute value of a number and its geometric interpretation on a number line
 3. Compute square roots of numbers
 4. Use estimation to determine approximate solutions and to check reasonableness of answers
 5. Explore rates, ratios and proportions
 6. Apply correct units to answers
 7. Explore the use of variable in expressions and evaluate algebraic expressions
 8. Solve linear equations and inequalities
- G. Examine linear relationships and describe their meaning in the context of a problem
 1. Graph linear relationships
 - a. by plotting ordered pairs from tables
 - b. by using the slope and a point
 2. Identify the main characteristics of linear models
 - a. The slope
 1. its definition as the change in the dependent variable to the change in the independent variable
 2. its meaning as a constant rate of change
 3. its use in determining whether the line is increasing or decreasing
 4. the slopes of vertical or horizontal lines
 - b. The intercepts
 1. as a point at which the graph crosses an axis
 2. as the corresponding value of one variable when the other is zero
 - c. Use linear models to obtain values
 1. of the dependent variable by substitution
 2. of the independent variable by solving a linear equations

- d.** Interpret the results of a linear model in the context of a problem
 - 1. the slope
 - 2. the intercepts
 - 3. values of the independent and dependent variables
 - e.** Utilize multiple representations
 - 1. Tables
 - 2. Graphs
 - 3. Symbolic Form
 - H.** Examine bivariate data
 - 1. Scatterplots
 - 2. Correlation
 - 3. Outliers and influential points
 - 4. Least squares regression
 - a.** Historical origins of the least squares method in the early 19th century
 - b.** Overview of method of least squares
 - 5. Prediction
 - a.** Meaning
 - b.** Interpretation
 - 6. Checking assumptions
 - I.** Examine non-linear models
 - 1. Develop exponential models
 - a.** Graph exponential relationships
 - b.** Identify the main characteristics of exponential functions, including
 - 1. its algebraic form
 - 2. the shape of its graph
 - 3. the base as it related to whether the function is increasing or decreasing
 - 4. the vertical intercept
 - 5. the asymptote
 - c.** Explore logarithms
 - 1. Define a logarithm
 - 2. Identify the relationship between exponential and logarithmic form
 - 3. Apply the power property of logarithms
 - 4. Use logarithms to solve simple exponential equations
 - d.** Recognize multiple representations
 - 1. Tables
 - 2. Graphs

3. Symbolic form
- e. Develop exponential models to solve problems
 1. Determine the equation of an exponential model
 2. Find values of the dependent variable by substitution
 3. Solve exponential equations to find values of the independent variable
 4. Interpret the results in the context of the problem
 5. Examples of appropriate exponential modeling situations may include exponential growth and decay, compound interest, product lifetimes and warranties
2. Investigate the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem
 - a. Explore expressions with exponents
 1. Define exponents
 2. utilize the properties of exponents
 - b. Graph quadratic relationships
 1. recognize that the graph of a quadratic function has a parabolic shape
 - c. Identify the main characteristics of quadratic models
 1. the vertex as the maximum or minimum point on the graph
 2. the intercept(s), if they exist
 3. whether the graph opens up or down
 - d. Develop quadratic models to solve problems
 1. Obtain value of the dependent variable by substitution
 2. Find maximum or minimum values
 3. Interpret the results in the context of a problem
 - e. Utilize multiple representations
 1. Tables
 2. Graphs
 3. Symbolic form
3. Compare linear, exponential and quadratic models
- J. Apply statistical concepts and methods to a variety of contemporary applications such as
 1. heights and weights of male and female athletes
 2. AIDS factors and drug use comparisons
 3. Comparisons of percentage of persons below the poverty line
 4. Ethnic and gender distribution
 5. Language spoken at home
 6. Discrimination in mortgage lending
 7. Literacy rates by gender, nation, and/or ethnicity

8. Demographic statistics such as life expectancy, teenage birth rates, poverty rates, attained educational level, unemployment or income by nation, region, gender, age or ethnicity

VI. Assignments

- A. Required readings from the text
- B. Problem solving exercises that include written explanations of concepts and justification of conclusions. These exercises may be based upon real data.
- C. Laboratory projects that include written descriptions of methods and results, and justification of conclusions. These laboratory projects may be based upon real, simulated or collected data

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
 Discussion and problem solving performed in class
 In-class exploration of Internet sites
 Quiz and examination review performed in class
 Homework and extended projects
 Collaborative learning and small group exercises
 Collaborative projects

VIII. Methods of Evaluating Objectives

- A. A minimum of two one hour examinations composed of both computational and concept based questions that will require the student to demonstrate ability in integrating the methods, ideas and techniques learned in class. Questions may also require the student to communicate ideas and conclusions in short essay format. These will be evaluated for accuracy and demonstration of critical thinking.
- B. A minimum of three technology based projects/activities that make use of graphing calculators or computation of techniques discussed in class. Questions may also require the student to communicate ideas and conclusions in short essay format. These will be evaluated for accuracy and demonstration of critical thinking. For examples, see applicable activities in the Schaeffer book listed in Supporting References
- C. Problem solving exercises (homework) and/or quizzes will be evaluated for accuracy and completion in order to assess student's comprehension of material covered in lecture and to provide feedback to students on their progress. Questions may also require the student to communicate ideas and conclusions in short essay format. These will be evaluated for accuracy, completion and/or demonstration of critical thinking.
- D. Two hour comprehensive final examination composed of both computational and concept based questions which will require the student to demonstrate ability in integrating the methods, ideas and techniques learned in class. Questions may also require the students to communicate ideas and conclusions in short essay format. These will be evaluated for accuracy and demonstration of critical thinking.

IX. Texts and Supporting References

- A. Examples of Primary Texts and References
 1. Dean, Susan and Illowsky, Barbara, "Collaborative Statistics", 2nd ed. <http://cnx.org>. 2012
 2. Soler, Frank. "Statistics: Understanding Uncertainty", 3rd ed. Associated Research Consultants, Cupertino, 2008

3. Larson and Farber. "Elementary Statistics, Picturing the World", 5th ed. Pearson 2012
4. Lehmann, Jay. "Elementary and Intermediate Algebra, Functions and Authentic Applications". Prentice Hall, 2011
5. MyStatway computer software. See <http://www.carnegiefoundation.org/statway>

B. Examples of Supporting Texts and References

1. David, F.N. "Games, Gods, and Gambling: A History of Probability and Statistical Ideas". Dover Publications, Inc, 1998
2. Devore, Jay L. "Probability and Statistics for Engineering and the Sciences", 8th ed. Cengage, 2012
3. McClave, James T. and Sincich, Terry. "Statistics", 11th ed. Pearson, 2009
4. Moore, David S. and McCabe, George P. "Introduction to the Practice of Statistics", 6th ed. W.H. Freeman, 2009
5. Packel, Edward. "The Mathematics of Games and Gambling", 2nd ed. The Mathematical Association of America, 2006
6. Peck, R, et al. "Statistics: A Guide to the Unknown", 4th ed. Cengage, 2006
7. Schaeffer, Richard I. "Activity Based Statistics", 2nd ed. Wiley eBook, 2009
8. Stigler, Stephen M. "The History of Statistics, The Measurement of Uncertainty before 1900". Belknap Press, 1986



Credit - Degree Applicable
Effective Quarter: Fall 2013

I. Catalog Information

MATH 57

Integrated Statistics 2

5 Unit(s)

(See general education pages for the requirement this course meets.)

Prerequisite: Mathematics 217.

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Five hours lecture (60 hours total per quarter).

This is the second quarter of two in the Statway sequence. This sequence covers concepts and methods of statistics with an emphasis on data analysis. Sequence topics include methods for collecting data, graphical and numerical descriptive statistics, correlation, simple linear regression, basic concepts of probability, probability distributions, confidence intervals, hypothesis tests for means and proportions, chi-square tests, and ANOVA. The course introduces students to applications in engineering, business, economics, medicine, education, the sciences, and those pertaining to issues of contemporary interest. Where appropriate, the contributions to the development of statistics by men and women from diverse cultures will be introduced. This sequence is recommended for students with majors that require no mathematics beyond freshman-level statistics. It is not appropriate for students with majors in math, science, computer science or business, nor for students desiring to attend UC or private universities.

Course Justification: This course is the second of a two-quarter Statway sequence. It accelerates the time needed by students to complete a transfer-level statistics course by integrating essential concepts from algebra into the study of statistics. This sequence is appropriate for students with majors that require no mathematics beyond freshman-level statistics. It is not appropriate for students with majors in math, science, computer science or business.

SLO (1): Identify, evaluate, interpret and describe data distributions through the study of sampling distributions.

SLO (2): Collect data, interpret, compose and defend conjectures, and communicate the results of random data using statistical analyses such as interval and point estimates, hypothesis tests, and regression analysis.

II. Course Objectives

- A. Examine distributions of data using graphical and analytical methods
- B. Describe data distribution through the study of sampling distributions
- C. Estimate parameters by constructing point estimates and confidence intervals
- D. Compose probability statements about how confident one can be about making decisions

based on data and construct the Type I and Type II error probabilities based on this decision

E. Apply statistical concepts and methods to a variety of contemporary applications

III. Essential Student Materials

Graphing calculator and/or appropriate software such as Microsoft Excel.

IV. Essential College Facilities

Computer laboratory.

V. Expanded Description: Content and Form

A. Examine distributions of data using graphical and analytical methods

1. Discrete Probability Distributions

a. Discrete random variables: expected value and variance

b. Binomial Distribution

1. Properties of the Binomial Distribution

2. The origins of the Binomial Distribution in the arithmetic triangle of China and Pascal and the historical development of binomial probabilities by the Bernoulli family (optional)

2. Continuous Probability Distributions

a. Continuous random variables: probability is equal to area

b. Area (probability) and percentile computations

c. Normal (Gaussian) Distribution

1. The normal random variable

2. Standard normal distribution

3. Its historical development by Carl Friedrich Gauss in the 19th century (optional)

4. The normal approximation to the binomial (optional)

B. Describe data distribution through the study of sampling distributions

1. Creating patterns through simulation

2. The Central Limit Theorem for Averages

3. The historical origins of the Central Limit Theorem in the early 19th century (optional)

4. The Law of Large Numbers (optional)

C. Estimate parameters by constructing point estimates and confidence intervals

1. Point estimation

2. Confidence intervals for population means (population standard deviation known)

3. The Student-t distribution

a. The historical origins of the Student-t distribution by William Gosset in the early 20th century, including his work in small sample sizes (optional)

b. Population standard deviation unknown

c. General assumptions about the Student-t distribution

4. Confidence intervals of population means (population standard deviation unknown)
5. Confidence intervals for population proportions
- D.** Compose probability statements about how confident one can be about making decisions based on data and construct the Type I and Type II error probabilities based on this decision
 1. The nature of hypothesis testing
 - a. Formulating the null and alternate hypotheses
 - b. The p-value approach
 - c. The decision approach given a fixed significance
 - d. The four decisions
 1. The Type I error probability
 2. The Type II error/Power probability concept (calculations are optional)
 3. Determining when statistical significance really matters
 2. The Chi Square Distribution
 - a. Developing and checking distributional assumptions
 - b. Major uses
 - c. Contingency Tables: independence and homogeneity
 - d. At least one of the following:
 1. Goodness of Fit
 2. Single variance
 3. Testing multiple population parameters
 3. Testing multiple population parameters
 - a. Two sample means: matched pairs and independent groups
 - b. At least one of the following:
 1. Two proportions
 2. Two variance and the F distribution
 - c. The One Way Analysis of Variance (ANOVA) (optional)
 1. Multiple means
 2. Checking assumptions
- E.** Apply statistical concepts and methods to a variety of contemporary applications
 1. Typical examples may include
 - a. Decisions and Risk
 1. Testing claimed percent of rape victims
 2. Testing claimed percent of female suicide victims
 3. Comparing return on investment (ROI) in investment portfolios: maximizing expected returns, minimizing variance and volatility
 - b. Games of Chance

1. Modeling games such as Vietnamese "Lucky Dice" using Binomial Distribution
2. Using simulation as a tool to understand probability distributions
- c. Estimation and Inference
 1. Distribution of AIDS cases in Santa Clara county by ethnicity
 2. Distribution of percents of ethnic groups in San Francisco compared to observed percents
 3. Collecting data to use hypotheses testing to challenge established beliefs
 4. Analyzing medical treatments to compare effectiveness or safety of treatment vs placebo, or comparing more than one treatment
2. Use statistical knowledge to recognize and discuss provocative inferences and conclusions reported by the media, especially in regards to controversial current events issues, e.g. presidential and political elections, educational reform and trends, nutritional claims, and census sampling vs. counting
3. Recognize some contemporary contributors to the field of statistics (optional - see web site <http://faculty.deanza.fhda.edu/mathiosdiane/> for references)

VI. Assignments

- A. Required readings from the text and other (optional) sources
- B. Problem solving exercises that include written explanations of concepts and justification of conclusions. These exercises may be based upon real data
- C. Technology based projects/activities that include written descriptions of methods and results, and justification of conclusions. These technology based projects/activities may be based upon real, simulated or collected data

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
 Discussion and problem solving performed in class
 In-class exploration of Internet sites
 Quiz and examination review performed in class
 Homework and extended projects
 Guest speakers
 Collaborative learning and small group exercises
 Collaborative projects
 Activities which involve students in formal exercises of data collection and analysis
 Problem solving and exploration activities using applications software
 Problem solving and exploration activities using courseware

VIII. Methods of Evaluating Objectives

- A. A minimum of two one hour examinations composed of both computational and concept based questions that will require the student to demonstrated ability in integrating the methods, ideas and techniques learned in class. Questions may also require the student to communicated ideas and conclusions in short essay format. These will be evaluated for accuracy and demonstration of critical thinking.
- B. A minimum of three technology based projects/activities that make use of graphing calculators or computation of techniques discussed in class. Questions may also require the student to communicate ideas and conclusions in short essay format. These will be evaluated for accuracy and demonstration of critical thinking. For examples, see applicable activities in

the Schaeffer book listed in Supporting References

- C.** Problem solving exercises (homework) and/or quizzes will be evaluated for accuracy and completion in order to assess student's comprehension of material covered in lecture and to provide feedback to students on their progress. Questions may also require the student to communicate ideas and conclusions in short essay format. These will be evaluated for accuracy, for completion and/or for demonstration of critical thinking.
- D.** Two hour comprehensive final examination composed of both computational and concept based questions which will require the student to demonstrate ability in integrating the methods, ideas and techniques learned in class. Questions may also require the students to communicate ideas and conclusions in short essay format. These will be evaluated for accuracy and demonstration of critical thinking.

IX. Texts and Supporting References

A. Examples of Primary Texts and References

- 1. Dean, Susan and Illowsky, Barbara, "Collaborative Statistics", 2nd ed. <http://cnx.org>. 2012
- 2. Soler, Frank. "Statistics: Understanding Uncertainty". 3rd ed. Associated Research Consultants, Cupertino, 2008
- 3. Larson and Farber. "Elementary Statistics, Picturing the World", 5th ed. Pearson, 2012
- 4. Bluman, "Elementary Statistics, A Step by Step Approach, A Brief Version", 4th ed. McGraw Hill 2008
- 6. MyStatway computer software. See <http://www.carnegiefoundation.org/statway>

B. Examples of Supporting Texts and References

- 1. David, R.N. "Games, Gods, and Gambling; A History of Probability and Statistical Ideas". Mineola, NY Dover Publications, Inc, 1998
- 2. Devore, Jay L. "Probability and Statistics for Engineering and the Sciences". 8th ed. Cengage 2012
- 3. McClave, James T. and Sincich, Terry. "Statistics". 11th ed. Pearson 2009
- 4. Moore, David S. and McCabe, George P. "Introduction to the Practice of Statistics". 6th ed. W.H. Freeman 2009
- 5. Packel, Edward. "The Mathematics of Games and Gambling" 2nd ed. The Mathematical Association of America 2006
- 6. Peck, R., et al. "Statistics: A Guide to the Unknown" 4th ed. Cengage 2006
- 7. Schaeffer, Richard L. "Activity Based Statistics 2nd ed. Wiley eBook 2009
- 8. Stigler, Stephen M. "The History of Statistics, The Measurement of Uncertainty before 1900". Belknap Publications 1986
- 9. <http://nebula2.deanza.edu/~stats-De> Anza College Math 10 Curriculum - Supporting Internet references

1 of 5

III. Essential Student Materials

Appropriate attire, ~~yoga mat,~~ **mats**, and towel. ~~towel.~~

IV. Essential College Facilities

Gym ~~with access to exercise equipment.~~

V. Expanded Description: Content and Form

- A.** Examine the global and historical perspective/philosophy of the Pilates training routine from its early development to inclusion within physical education curriculum.
 1. Joseph Pilates develops exercise program at internment camp during WWI.
 - a. During WWI the British authorities interned Pilates with other German citizens in a camp in the Isle of Man.
 - b. While in the camp Pilates method began to take shape as he trained other inmates in fitness and exercise.
 2. 1926 - First Pilates training school opens in New York City.
 - a. Joseph Pilates and his wife Clara supervised and taught students well into the 1960s.
 - b. Pilates originally called his exercise "Contrology", related to encouraging the use of the mind to control muscles.
 - c. He focused his attention on core postural muscles.
 - d. His method is used as a type of rehabilitation for dancers injuries.
 3. 1967 - Pilates dies but apprentices keep style of exercise alive.
 - a. Disciples such as Romana Kryzanowska and Jay Grimes carried on the work of Joseph Pilates.
 - b. Famous dancers such as George Balanchine and Martha Graham became devotees and regularly sent their students to Pilates for training and rehabilitation. After his death they continued to send students to his disciples because of their belief in Joseph Pilates techniques.
 4. 1991 - Institute for the Pilates method of exercise opens in Santa Fe, New Mexico.
 5. 2000 - the name "Pilates" becomes a generic both in reference to a certain type of exercise and to certain types of equipment used.
 6. 2001 the Pilates Method Alliance (PMA) was founded by Kevin A. Bowen and Colleen Glenn as a non-profit, unbiased information resource dedicated to the teachings of Joseph H. and Clara Pilates
 - a. Law suits filed to fight instructors using the Pilates name.
 - b. The inventor of Stout Pilates won battle over using the Pilates name.
 7. Americans practice Pilates.
 - a. In 2005 11 million people practice the discipline regularly.
 - b. Fourteen thousand instructors are now teaching Pilates in the United States.
 - c. In Portland, OR, the Pilates method which includes concentration is being studied in providing relief from the degenerative symptoms of Parkinson's disease.
- B.** Develop personal awareness through practice of the Pilates method

1. Explore the concept of concentration such as control, centering, flowing and precision movement.
 - a. **Practice of controlled movements**
 - b. **Understanding the concept of centering one's movement from the inside out.**
 - c. **Ability to use breath during exertion.**
 - d. **Ability to perform movements in a fluid and precise manner.**
2. Apply relaxed movement through mindfulness and techniques of controlled breathing.
- C. Examine and incorporate Pilates practices for the mind, body and emotions into daily life.
 1. Demonstrate concentration techniques to center, relax, and create mind/body harmony.
 2. Consciously control muscle tension through muscular relaxation techniques.
 3. Demonstrate Pilates movements to maintain dynamic balance for the mind/body.
 4. Demonstrate breath control to center, relax, and create mind/body harmony.
 5. Demonstrate an awareness of body centering, mindfulness, and relaxation.
- D. Examine and apply basic exercise physiology, nutrition, flexibility, strength, and emotional concepts to improve one's physical condition with consideration for variables due to age, gender, and physical differences.
 1. Theories of exercise physiology as it ~~related~~ **relates** to Pilates exercise.
 - a. Utilization of large and small muscle groups
 - b. Awareness of lever actions and angles
 - c. Understanding different types of muscular contractions
 - d. Different body positions and exercises
 - e. Isolating specific muscles
 - f. Proper deep breathing technique used during physical activity, and as a stress-management intervention.
 - g. Necessity of an effective warm-up
 - h. Exercise suggestions for injury prevention and rehabilitation
 2. Nutritional concepts that promote a balanced lifestyle
 - a. Appropriate diet for wellness
 - b. Information regarding pre-class nutrition
 - c. Dietary habits to influence weight control
 3. Flexibility enhancement for all including those with special needs
 - a. Techniques to improve overall flexibility
 - b. Techniques to address individual problems or specific concerns, e.g., low back
 - c. Pre and post exercise stretching rationale
 4. Strength development improvement for all including those with special needs
 - a. Techniques and exercises to improve overall strength
 - b. Techniques to address individual strength concerns

- c. Methods for strength improvement while avoiding injury:
 - 1. Proper form and breathing
 - 2. Selection of appropriate exercise order, large muscle groups to small, combinations of muscle groups to specific muscle groups.
- 5. Allowing for individual differences i.e., age, gender, and physical limitations
- 6. Understanding the concept of reversibility, i.e., exercise benefits are subject to reversal of conditioning following an extended cessation of activity
- 7. Knowledge of muscular anatomy incorporated in the movement sequences.
- 8. Knowledge of the fitness and health-related components in Pilates activity.
- 9. Psychological/Emotional concepts enabling intellectual focusing and as a stress-management intervention:
 - a. Setting realistic goals
 - b. Development of imagery
 - c. Improvement in the ability to concentrate
 - d. Improvement of relaxation ability
- E. Analyze and memorize movement sequences to improve postural, static, and motor skills as they apply to everyday functional activities.
 - 1. Design and implement simple Pilates practices for the body, mind, and emotions that can be easily incorporated into daily life.
 - 2. Establish a personal routine based upon skills observed in class.
 - 3. Comprehend and experience increased personal awareness through the systematic practice of Pilates.
 - ~~4. Mat exercises vs. Stability Ball exercises.~~
 - ~~g. Focused breathing as a stress-management intervention~~
 - ~~5. Development of prime mover vs. antagonist musculature, e.g., quadriceps vs. hamstrings~~

VI. Assignments

- A. Reading:
 - 1. Textbook
 - 2. Handouts
 - 3. Media Sources
- B. Writing
 - 1. Essay on the global and historical events that have influenced the growth of ~~Pilates~~ **and/or Pilates. the five components of fitness.**
 - 2. Essay - based upon readings.
- C. Practice skills for 1 hour per week outside class sessions.

VII. Methods of Instruction

Lecture and visual aids
Discussion of assigned reading

Discussion and problem solving performed in class
 Collaborative learning and small group ~~exercises~~
exercises
Lecture/Demonstration

VIII. Methods of Evaluating Objectives

- A. ~~Flexibility improvement, strength improvement.~~ Practical assessment measuring improvement in flexibility, posture, and core strength.**
 - 1. Demonstration of learned Pilates routines and associated benefits.
 - 2. Technical assessment, i.e., sequenced movements, breathing, form.
- B. ~~Literature review brief written review~~ Essay based upon the readings from the textbook "Fit and Well," and the importance of health/fitness-related news or journal article of a balanced lifestyle for overall wellness.**
- C. ~~Written midterm essay assignment~~ Essay based upon the global and historical events that have influenced the growth of Pilates throughout the World and more importantly the United States.**
- D. Written comprehensive final exam based upon textbook readings, handouts and class lectures.**
- E. Skills test, performance demonstration**

IX. Texts and Supporting References

- A. ~~Examples of Primary Texts and References:~~ References-Examples of Primary Texts and References**
 - 1. *Fahey, T. D., Insell, P. M., & Roth, W. T. "Fit & Well", 8th ~~10th brief ed.~~, ed., San Francisco, CA, McGraw Hill Publishing, ~~2008~~. Co. **2012.**
- B. ~~Examples of Supporting Texts and References:~~ References-Examples of Supporting Texts and References**
 - 1. Winsor, M., "The Pilates Powerhouse", Gaiam, Inc 2002.
 - 2. Menezes, A., "The Complete Guide to the Pilates Method", Hunter House Publishers, Boston, MA, 2002.
 - 3. Siller, B., "The Pilates Body", Broadway Books, New York, NY. 2004
 - 4. "Pilates Beginning Mat workout", Gaiam Company, 2000 (video).
 - 5. "Pilates Intermediate Mat Workout", Gaiam Company, 2000 (video).
 - 6. Archer, Shirley, "Pilates Mat Training", American Council on Exercise (ACE), San Diego, CA, 2004.



Credit- Degree applicable
Effective Quarter: Fall ~~2009~~ 2013

I. Catalog Information

P E 16A

Beginning Golf

0.5 Unit(s)

P E 16AX

1 Unit(s)

(See general education pages for the requirement this course meets.)

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and ~~273~~, **273**.

~~(Any combination of Physical Education 16A, 16AX, 16B and 16BX may be taken up to six times for credit for the family of courses.)~~

Two hours laboratory for the one-half unit course (24 hours total per quarter); three hours laboratory for the one unit course (36 hours total per quarter).

An introduction to the discipline of Physical Education through the sport of golf. Includes a global and historical examination of the sport, rules, equipment, facilities, etiquette, safety, and basic fundamentals of beginning golf. Students will develop skills in putting, chipping, pitching, and full swing fundamentals utilizing basic theories of physics. The skills portion of the course will encourage an understanding of how to adapt to the game and conventional techniques to an individual's physical abilities. Students will apply basic exercise physiology, nutrition, flexibility and strength concepts to improve their overall playing level.

Course Justification: This course meets requirements in area E for General Education. In addition this course meets the requirements for transfer status to the CSU and UC systems.

[ORIGINAL] SLO (1): Perform and execute a degree of proficiency with the basic fundamental of beginning golf.

[ORIGINAL] SLO (2): Apply knowledge of basic fitness concepts as they apply to health and wellness.

[ORIGINAL] SLO (3): Demonstrate knowledge of rules, etiquette and safety in the sport of golf.

II. Course Objectives

- A.** Examine golf in a historical and cultural context from the 1400's to the present.
- B.** Utilize media sources, texts, and the Internet to examine significant events in world history, which have influenced the development of the game of golf.
- C.** Analyze the physiological differences between gender and age and their influences on the development of golf skills.
- D.** Recognize, identify and apply the ~~rules~~ **rules**, and the ~~equipment~~ **equipment** of the game, scoring, etiquette/social behaviors and safety.

- E.** Develop knowledge of applied physics relative to force development and swing mechanics as it relates to putting, chipping, pitching, and full swing motions through guided practice sessions. **sessions using short scoring irons i.e., 8, 9, pitching wedge, sand wedge and putter.**
- F.** ~~Describe~~ **Understand** the technological changes in equipment and how ~~as it changed~~ **has** changed the way in which children, adults, and older adults play the game.
- G.** Understand basic ~~apply~~ exercise physiology, nutrition, flexibility, and strength concepts to ~~concepts~~ **enhance** physical ~~improve~~ **their condition for playing the game of golf** physical condition in order to play at a ~~a beginning more advanced level.~~ **level.**
- H.** ~~Understand, and develop basic mental strategies as they apply to the execution of physical skills prior to and during a round of golf.~~

III. Essential Student Materials

Appropriate golf attire, appropriate golf shoes, and nine practice golf balls

IV. Essential College Facilities

Golf range, golf mats, golf clubs, classroom, video monitor, and player

V. Expanded Description: Content and Form

- A.** Examine golf in a historical and cultural context from the 1400's to the present.
 - 1. Understand how the game of golf has evolved since the 1400's.
 - a.** The Dutch called it KOLF. Played on the frozen canals.
 - b.** France and Belgium utilized various cross-country variations.
 - c.** Scotland called it GOWF. Blamed golf for interfering with the practice of archery for defense efforts. Could therefore, play golf only on Sundays.
 - 2. Mary, Queen of Scots, became the first lady to play golf. (1567)
 - 3. First account of golf equipment, Scotland in 1574.
 - 4. First patent of golf ball making in 1618, Scotland.
 - 5. First record of a round of golf at Dornock in 1628.
 - 6. The increased medial coverage of golf has exposed the game to various cultures internationally, i.e. Korea, Australia, Sweden, Germany, South Africa, Mexico, Spain, etc.
 - 7. Within the U.S.A. the breakdown of country-club rules and regulations due to discrimination laws towards minorities has bridged the gap for all those intending on purchasing a membership, i.e. Blacks, women.
 - 8. Golf for the adaptive is on the rise due to the Casey Martin case, Supreme Court, 2000.
- B.** Utilize media sources, texts, and the Internet to examine significant events in world history, which have influenced the development of the game of golf.
 - 1. Golf as a pastime during war.
 - 2. Influence of television and increased purse winnings.
 - a.** Increased exposure spurs growth of game (more people are exposed to the game).
 - b.** Marketing of the professional tours: PGA, Senior PGA, and LPGA.
 - c.** International competition and events encourages country vs. country rivalry

1. Curtis Cup and Walker Cup for amateurs
 2. Ryder Cup and Solheim cup for professionals
 3. All "The Majors" for PGA, Senior PGA, and LPGA.
 - d. The historical media coverage of certain players have contributed to the development of the game for the wealthy, minority, women, and various countries around the world.
 1. Arnold Palmer, Jack Nicklaus
 2. Tiger Woods, Nancy Lopez
 3. Annika Soranstan (Sweden), Si Ri Pak (Korea), Kari Webb (Australia), Greg Norman (Australia), Ernie Els (South Africa), Vijay Singh (India)
- C. Analyze the physiological differences between gender and age and their influences on the development of golf skills.
1. Gender commonalities
 - a. Safety
 - b. Overall strengths
 - c. Overall weaknesses
 2. Gender differences
 - a. Individual strengths
 - b. Individual weaknesses
 3. Age differences
 - a. Overall strengths
 - b. Overall weaknesses
 - c. Title IX, and the influx of scholarships and more opportunities for women and girls to participate in the game of golf.
- D. Recognize, identify and apply the ~~rules~~ **rules**, and ~~the~~ **equipment** of the game, scoring, etiquette/social behaviors and safety.
1. Scoring systems
 - a. Match play
 - b. Stroke play
 - c. Scoring
 - d. Other forms of play, i.e., best-ball, four-ball match play
 - e. Utilization of scorecard
 2. Basic Rules
 - a. Overall objective of game
 - b. Definitions and glossary of terms of golf
 - c. Introduction of the rule book (U.S.G.A)
 - d. Common rule infractions
 - e. Boundaries
 - f. Etiquette/social behavior

- g. Safety and awareness
- h. Proper dress attire
- 3. **Equipment used in the game of golf.**
 - a. **Introduce scoring irons (8, and 9 irons, pitching wedge and sand wedge). Emphasize on the scoring clubs when executing the fundamentals of the full swing, pitching, and chipping.**
 - b. **Carry bags vs. cart bags**
 - c. **Pull carts vs. motorized carts**
 - d. **Gloves and shoes**
 - e. **Putter**
 - f. **Explain all the various golf clubs and their differences.**
- E. Develop knowledge of applied physics relative to force development and swing mechanics as it relates to putting, chipping, pitching, and full swing motions through guided practice sessions. **sessions using short scoring irons i.e., 8, 9, pitching wedge, sand wedge and putter.**
 - 1. Simple applied physics
 - a. Transfer of momentum
 - b. Swing speed and creating power
 - c. Weight shifts, trunk rotation
 - d. Swing patterns
 - e. Importance of a good set-up **and grip**
 - f. Importance of balance
 - g. Importance of a follow through with motion
 - h. Direction of force translating to direction of ball
 - 2. Fundamental descriptions and skills acquisition
 - a. Vocabulary
 - b. Putting, chipping, pitching, full swing motions
 - c. Different grips
 - d. Different setups
 - 3. Drills
 - a. Large groups
 - b. Small groups
 - c. Partners
 - d. Individuals
 - e. Modifications for individual limitations
 - 4. Strive to perform conventional techniques and learn how to adapt based on individual strength, flexibility, and coordination
- F. ~~Describe~~ **Understand** the technological changes in equipment and how ~~has~~ **it changed has**

changed the way in which children, adults, and older adults play the game.

1. Changes in materials/golf club composition- graphite, boron, light weight steel, titanium.
 2. Changes in club fitting techniques
 - a. Static fit
 - b. Dynamic fit
 3. Changes in measurements of golf club-length, lie, loft, flex, weight
 4. Implications - how the game has changed
 - a. Younger, older/weaker players can swing the club faster and easier
 - b. Golf club composition imparts more power with less effort
 - c. Players can hit the ball farther due to more club-head speed
 - d. Improved technology with equipment has improved the game of golf
 - e. Technology and aerodynamics have greatly improved the construction of the golf ball for different distances and trajectories
 - f. Replacement of metal spikes with soft spikes in golf shoes have protected the grasses on putting surfaces
 5. Use of cart
 - a. Walking vs. riding in a cart
 - b. Carrying equipment vs. pulling cart
- G. Understand basic apply exercise physiology, nutrition, flexibility, and strength concepts to concepts enhance physical improve their condition for playing the game of golf physical condition in order to play at a a beginning more advanced level. level.**
1. ~~Anaerobic~~ **Aerobic** and anaerobic exercise
 2. Nutritional concepts with special notes regarding specific needs for various populations: youth, adult, older adults, highly trained athletes ~~no matter what age, male or female. and gender.~~
 3. Flexibility concepts with special notes regarding specific needs for various populations: youth, adult, older adults, highly trained athletes ~~no matter what age, male or female. and gender.~~
 4. Strength concepts with special notes regarding specific needs for various populations: youths, adults, older adults, highly trained athletes ~~no matter what age, males and gender. and females.~~
- a. Techniques for overall strength

- b. Techniques specific to golf
- c. Techniques to avoid common injuries
- e. ~~Different swing mechanics~~
- c. ~~During play and competition meals~~

~~**ZDEL-H.** Understand, and develop basic mental strategies as they apply to the execution of physical skills prior to and during a round of golf.~~

- 1. ~~Tension control~~
- 2. ~~Concentration~~
- 3. ~~Course Management~~
- 4. ~~Visualization and imagery~~
- 5. ~~Goal setting~~

VI. Assignments

A. Readings

- 1. Textbook
- 2. Media sources, such as "Golf for Woman" and "Golf Today", "The Golf Channel", Internet
- 3. Handouts

B. Writing - An essay concerning a major golf tournament on television ~~and/or~~ **and related topics from on the five components of fitness the textbook.**

C. Practical - practice golf **swing** mechanics at a local driving range. ~~using an 8 and 9 iron, pitching wedge, sand wedge and putter.~~

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
~~In-class essays~~
Quiz reading
Quiz and examination review performed in class
 Homework and extended ~~extended~~ **projects**
Lecture/demonstration
Collaborative learning projects
 and **small group exercises**

VIII. Methods of Evaluating Objectives

- A. Skills acquisition and improvement acquired through practice in and out of class.**
- B. Quality of class participation and involvement while executing the basic skills of golf.**
- C. Skills test using the 8 and 9 iron, pitching wedge, sand wedge and putter as it pertains to the full swing, chipping, pitching, and putting.**
- D. Evaluation of written assignments based upon a major golf tournament and related topics from the textbook.**
- E. Written tests including a final examination based upon class discussions, handouts, and readings from the textbook.**

IX. Texts and Supporting References

A. Examples of Primary Texts and References

1. Fahey, T., P. Roth, W. "Fit and Well - Brief Edition ~~8th ed.,~~ **10th Edition,**" San Francisco, CA, McGraw-Hill Publishing Co., ~~Co.,~~ **2011. 2008.**

B. Examples of Supporting Texts and References

1. ~~Cochran, Alastair.~~ **Newell, Steve, Ells, Ernie, and Lucas, Sharon,** "The Search for the Perfect Swing." Grass Valley, CA. ~~The Bootlegger, 1999.~~ **"The Golf Instruction Manual," Dorling Kindersley Publishing Inc., 2012**
2. "Golf Today" magazines
3. "Golf for Women" magazine
4. Hogan, Ben. "Five Lessons - The Modern Fundamentals of Golf." New York. Simon and Schuster Pub. 1997.
5. **Watson, Tom, "The Timeless Swing," Atria Books/Simon and Schuster, New York, NY, 2011**



Credit- Degree applicable
Effective Quarter: Fall 2009 2013

I. Catalog Information

P E 16B

Intermediate Golf

0.5 Unit(s)

P E 16BX

1 Unit(s)

(See general education pages for the requirement this course meets.)

Prerequisite: Physical Education ~~16A~~ **56D** or ~~16AX~~; **56DX** or instructor permission.

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

~~(Any combination of Physical Education 16A, 16AX, 16B and 16BX may be taken up to six times for credit for the family of courses.)~~

Two hours laboratory for the one-half unit course (24 hours total per quarter); three hours laboratory for the one unit course (36 hours total per quarter).

An introduction to the discipline of Physical Education through the sport of golf. Includes an historical examination, styles of play and strategies of the sport of men's and women's golf. Students will strive to develop intermediate skills in putting, chipping, pitching, unusual lies and full swing fundamentals utilizing theories of physics. ~~An in understanding of due mental strategies age, as they apply gender, and to conditions playing a round game will be noted.~~ will be ~~nutrition~~, **addressed**. Variations in concepts due to age, gender, and physical conditions will be noted. Exercise physiology, nutrition, flexibility and strength concepts for conditioning will be covered.

Course Justification: This course meets requirements in area E for General Education. In addition this course meets the requirements for transfer status to the CSU and UC systems.

[ORIGINAL] SLO (1): Perform and execute an intermediate level of fundamental skills as it pertains to the sport of golf.

[ORIGINAL] SLO (2): Apply knowledge of basic fitness concepts as they apply to health and wellness.

[ORIGINAL] SLO (3): Demonstrate knowledge of rules, etiquette and safety in the sport of golf.

II. Course Objectives

- A.** Examine the perspective of golf in a historical context from the beginning of the 1400's to the present.
- B.** Analyze the physiological differences between genders as well as age differences in golf.
- C.** Examine the popularity of the sport of golf due to global awareness.
- D.** Recognize, identify, and apply the rules of the ~~game~~, **game** of ~~etiquette/social~~ **golf**,

equipment, behaviors scoring, safety-
etiquette/social behaviors and **safety.**

- E. Develop the student's knowledge of applied physics relative to force development and swing mechanics as it relates to putting, ~~chipping, pitching, short irons, mid irons, and full and motions hybrids for through~~ full swing motions through guided practice sessions. ~~conventional~~ Strive to perform conventional techniques and learn how to adapt based on individual strength, flexibility, and coordination.
- F. Understand and apply basic exercise physiology, nutrition, flexibility, and strength concepts to improve their physical condition in order to play at a more advanced level.
- G. **Understand, and develop mental strategies as they apply to the execution of physical skills prior to and during a round of golf and while practicing at a golf range.**

III. Essential Student Materials

Appropriate golf attire and golf shoes, nine practice golf balls.

IV. Essential College Facilities

Golf range, golf mats, golf clubs, classroom, video monitor and player.

V. Expanded Description: Content and Form

- A. Examine the perspective of golf in a historical context from the beginning of the 1400's to the present.
 - 1. Utilize media sources, texts, and the internet to examine significant events in world history which have influenced the development of the game of golf.
 - a. Since the 1400's, man has played various versions of the game of golf as a past time during war. However, every civilization has played the game with a club and a ball. The game can extend from one village church door to another or from village to village.
 - b. The Dutch called it KOLF. Played on the frozen canals.
 - c. France and Belgium utilized various cross-country variations.
 - d. Scotland called it GOWF. Blamed golf for interfering with the practice of archery for defense efforts. Could , therefore, play golf only on Sundays.
 - 2. Mary, Queen of Scots, became the first lady to play golf. (1567)
 - 3. First account of golf equipment, Scotland in 1574.
 - 4. First patent of golf ball making in 1618, Scotland.
 - 5. First record of a round of golf at Dornock in 1628.
 - 6. Influence of television and increased purse winnings.
 - a. Increased exposure spurs growth of game (more people are exposed to the game.
 - b. Marketing of the professional tours: PGA, Senior PGA, and LPGA.
 - c. International competition and events encourages country vs. country rivalry
 - d. Curtis Cup and Walker Cup for amateurs.
 - e. Ryder Cup and Solheim Cup for professionals.
 - f. All "The Majors" for PGA, Senior PGA, and LPGA.
- B. Analyze the physiological differences between genders as well as age differences in golf.

1. Gender commonalities
 - a. ~~safety~~ **Safety**
 - b. ~~overall~~ **Overall** strength
 - c. ~~overall~~ **Overall** weaknesses
 2. Recognize differences
 - a. ~~individual~~ **Individual** strengths
 - b. ~~individual~~ **Individual** weaknesses
 3. Age differences
 - a. ~~overall~~ **Overall** strengths
 - b. ~~individual~~ **Individual** weaknesses
 4. Due to Title IX, the influx of scholarships and more opportunities for women and girls to participate in the game of golf.
- C. Examine the popularity of the sport of golf due to global awareness.
1. The increased medial coverage of golf has exposed the game to various cultures internationally, i.e. Korea, Australia, Sweden, Germany, South Africa, Mexico, Spain, etc.
 2. Within the U.S.A. the breakdown of country-club rules and regulations due to discrimination laws toward minorities has bridged the gap for all those intending on purchasing a membership, i.e. Blacks, women.
 3. Golf for the adaptive is on the rise due to the Casey Martin case, Supreme Court, 2004.
 4. Various topics such as how individual men and women have brought not only fame to themselves but to their countries and the styles of play and strategies aught there.
 5. The historical media coverage of certain players have contributed to the development of the game for the wealthy, minority, women, and various countries around the world.
 - a. Arnold Palmer, Jack Nicklaus
 - b. Tiger Woods, Nancy Lopez
 - c. Annika Soranstan (Sweden), Si Ri Pak (Korea), Kari Webb (Australia), Greg Norman (Australia), Ernie Els (South Africa), Vijay Singh (India)
- D. Recognize, identify, and apply the rules of the ~~game~~, **game** of ~~etiquette/social~~ **golf**, **equipment**, ~~behaviors~~ **scoring**, ~~etiquette/social~~ **behaviors** and safety.
1. Scoring systems
 - a. ~~match~~ **Match** play
 - b. ~~stroke~~ **Stroke** play
 - c. ~~scoring~~ **Scoring**
 - d. ~~other~~ **Other** forms of play, i.e., best-ball, four-ball match play
 - e. ~~utilization~~ **Utilization** of a scorecard
 2. Rules
 - a. ~~overall~~ **Overall** objective of game
 - b. ~~definitions~~ **Definitions** and glossary of terms of golf
 - c. ~~introduction~~ **Introduction** of the rule book (U.S.G.A)

- d. ~~common~~ **Common** rule infractions
 - e. ~~boundaries~~ **Boundaries**
 - f. ~~etiquette/social~~ **Etiquette/social** behaviors
 - g. ~~safety~~ **Safety** and awareness
 - h. ~~proper~~ **Proper** dress attire
3. **Equipment used in the game of golf.**
- a. **Review of scoring irons (8, and 9 iron, pitching wedges, sand wedge and putter.**
 - b. **Review of mid irons (7, 6 and 5 iron)**
 - c. **Introduce technique of hybrid clubs**
 - d. **Introduce technique of fairway woods.**
 - e. **Introduce sand wedge in sand bunkers**
- E. Develop the student's knowledge of applied physics relative to force development and swing mechanics as it relates to putting, ~~chipping, pitching, short irons, mid irons, and full and motions hybrids for through~~ full swing motions through guided practice sessions. ~~conventional~~ Strive to perform conventional techniques and learn how to adapt based on individual strength, flexibility, and coordination.
- 1. Simple applied physics
 - a. ~~transfer~~ **Transfer** of momentum
 - 1. ~~swing~~ **Swing** speed and creating power
 - 2. ~~weight~~ **Weight** shifts, trunk rotation
 - 3. ~~swing~~ **Swing** patterns
 - b. ~~importance~~ **Importance** of a good set-up **and grip**
 - c. ~~importance~~ **Importance** of balance
 - d. ~~importance~~ **Importance** of a follow through with motion
 - e. ~~direction~~ **Direction** of force translating to direction of ball
 - 2. Intermediate descriptions and skills acquisition
 - a. ~~putting, chipping, pitching, unusual lies, full swing motions~~ **Putting,**
 - 1. ~~grips~~ **Different for different strokes** grips
 - 2. ~~hip and leg mechanics for different lies~~
 - 2. **Understanding speed and path during a putt.**
 - 3. ~~swing mechanics for different lies and distance~~ **Different address positions**
 - b. **Chipping**
 - 1. **Address position**
 - 2. **Length of stroke**
 - 3. **Different clubs for different lies and distances.**
 - c. **Pitching**
 - 1. **Address position**

- 2. **Length of stroke**
- 3. **Different clubs for different lies and distances.**
- d. **Full Swing**
 - 1. **Address position**
 - 2. **Length of stroke**
 - 3. **Different clubs for different lies and distances.**
- 3. **Learn to execute various shots**
 - a. **Bunker shots**
 - b. **Draws and hooks**
 - c. **Fades and sclices**
 - d. **Low punch shots**
 - e. **Unusual lies, up hill, down hill and side hill lies**
 - f. **Hard pan shots**
- 4. **Drills**
 - a. ~~large~~ **Large** groups
 - b. ~~small~~ **Small** groups
 - c. ~~partners~~ **Partners**
 - d. ~~individuals~~ **Individuals**
 - e. ~~modifications~~ **Modifications** for individual limitations
- F. **Understand and apply basic exercise physiology, nutrition, flexibility, and strength concepts to improve their physical condition in order to play at a more advanced level.**
 - 1. **Theories for anaerobic exercise**
 - 2. **Nutritional concepts with special notes regarding specific needs for various populations: youth, adult, older adults, highly trained athletes no matter what age, male or female. and gender.**
 - a. ~~balanced~~ **Balanced** diet for wellness
 - b. ~~pre-class~~ **Pre-class** and pre-play meals
 - c. ~~during~~ **During** play and competition meals
 - 3. **Flexibility concepts with special notes regarding specific needs for various populations: youths, adults, older adults, highly trained athletes no matter what age, male or female. and gender.**
 - a. ~~techniques~~ **Techniques** for overall flexibility
 - b. ~~techniques~~ **Techniques** specific to golf
 - c. ~~theories~~ **Theories** about stretching during a warm-up
 - d. ~~theories~~ **Theories** about stretching post-play
 - e. ~~techniques~~ **Techniques** for individuals with physical limitations
 - 4. **Strength concepts with special notes regarding specific needs for various populations: youths, adults, older adults, highly trained athletes no matter what age, males and**

~~gender. and females.~~

- a. ~~lifting~~ **Lifting** techniques for overall strength
- b. ~~lifting~~ **Lifting** techniques specific for golf
- c. ~~techniques~~ **Techniques** to avoid common injuries

G. Understand, and develop mental strategies as they apply to the execution of physical skills prior to and during a round of golf and while practicing at a golf range.

- 1. **Tension control**
- 2. **Concentration**
- 3. **Course Management**
- 4. **Visualization and imagery**
- 5. **Goal setting**

VI. Assignments

A. Readings

- 1. Textbook
- 2. Media sources, such as "Golf for Woman" and "Golf Today", "The Golf Channel"
- 3. Handouts

B. Writing

- 1. Essay concerning a Major golf tournament on television and/or an essay based upon the textbook "Fit and Well."
- 2. Short answer/multiple choice quizzes.

C. Practical - Practice golf mechanics at a local driving range for 4 hour min. 3 hours.

D. Play 9 holes of golf at an executive par 3 golf course.

VII. Methods of Instruction

Lecture and visual aids
 Discussion and problem solving performed in class
 In-class essays
 Quiz and examination review performed in class
 Homework and extended projects
 Collaborative learning and small group ~~exercises~~
exercises
Lecture/demonstration

VIII. Methods of Evaluating Objectives

- A. Skills acquisition and improvement acquired through practice in and out of class.**
- B. Quality of class participation and involvement while executing intermediate skills.**
- C. Skills test using scoring irons, mid irons, hybrids and putter.**
- D. Evaluation of written assignments based upon a major golf tournament and related topics from the textbook.**
- E. Written tests including a final examination based upon class discussions, handouts, and readings from the textbook.**

IX. Texts and Supporting References

A. ~~Text: Examples of Primary Texts and References~~ Examples of Primary Texts and References

1. *Fahey, T., P. Roth, W. Fit and Well, Brief ~~8th~~ **10th** ed., McGraw Hill Publishing Co., San Francisco, CA ~~2008~~. **2011**.

B. ~~References: Examples of Supporting Texts and References~~ Examples of Supporting Texts and References

1. Golf for Women magazine
2. Golf Today Magazines
3. ~~Cochran, Alastair. The Search For The Perfect Swing. Grass Valley, CA. The Bootlegger, 2005.~~ **Newell Steve, Ells, Ernie, and Lucas, Sharon, "The Golf Instruction Manual," Dorling Kindersley Publishing Inc., 2012**
4. Hogan, Ben. Five Lessons-The Modern Fundamentals of Golf. New York. Simon and Schuster Pub. 1997.
5. ~~Jacob, John. Practical Golf. Watson, Tom, "The Timeless Swing, " Atria Books/Simon and Schuster, New York. Quadrangle Books, Inc. 2005. New York, NY, 2011.~~



Credit - Degree Applicable
Effective Quarter: Fall 2013

I. Catalog Information

P E 51C

Active Isolated Stretching

0 5/0 Unit(s)

P E 51CX

1 0/0 Unit(s)

(See general education pages for the requirement this course meets.)

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Two hours laboratory for the one-half unit course (24 hours total per quarter); three hours laboratory for the one unit course (36 hours total per quarter).

An introduction to the discipline of Physical Education through active isolated stretching (AIS). Techniques for improving flexibility using dynamic facilitated stretching of major muscle groups. Technique modifications to account for physical limitations will be emphasized. A brief examination of the evolution of the various forms of stretching including active isolated stretching techniques will be included. With an emphasis upon exercise physiology, neurological reflexes, hydration, muscular strength and endurance, wellness concepts related to total fitness, age, gender, disabilities and/or genetics will be covered.

Course Justification: This course meets requirements in area E for General Education. In addition this course meets the requirements for transfer status to the CSU and UC systems.

SLO (1): Ability to understand the concept of active isolated stretching and be able to apply it,

SLO (2): Ability to develop an individual program that uses the Active Isolated Stretching (AIS) method to provide effective dynamic facilitated stretches of major muscle groups.

SLO (3): Apply knowledge of basic fitness concepts as they apply to health and wellness.

II. Course Objectives

- A.** Examine the global and historical concept of stretching, how it has changed to include many forms including the Active Isolated Stretching (AIS) method, benefiting all individuals no matter what age, gender or physical abilities.
- B.** Appraise and implement concepts of Active Isolated Stretching(AIS) techniques for effective dynamic facilitated stretching of major muscle groups.
- C.** Adapt techniques to meet the needs of individuals with physical limitations and/or disabilities.
- D.** Identify and perform the five I's of Active Isolated Stretching (AIS) methods.
- E.** Understand and describe the benefits of a rigorous stretching program and how it effects biomechanical balance.
- F.** Recognize and apply fundamental exercise physiology, nutrition, hydration and wellness concepts in regards to age, gender, and genetics.

G. Application of the principles of AIS individually or with a partner.

III. Essential Student Materials

Proper exercise attire

IV. Essential College Facilities

Gymnasium with audio/visual aids

V. Expanded Description: Content and Form

- A. Examine the global and historical concept of stretching, how it has changed to include many forms including the Active Isolated Stretching (AIS) method, benefiting all individuals no matter what age, gender or physical abilities.
 1. Aaron L. Mattes, develops Active Isolated Stretching (AIS) method to provide effective dynamic facilitated stretch of major muscle groups.
 2. Method is recognized for it's ability to provide functional and physiological restoration of flexibility in the myofacial planes.
 3. Known as an effective therapeutic treatment for deep and superficial myofascial release, restoring proper flexibility for optimal physiologic functioning.
 4. Stretching as a key component to preventing injuries and increasing performance in athletic endeavors.
 - a. Philosophies/theories underlying these techniques
 - b. The evolution of the various forms of stretching and how it may reflect the cultural values of the country the style it emanates from.
 5. Mattes concept of Active Isolated Stretching vs the philosophies/theories underlying other techniques used throughout the ages.
 6. Physicians, chiropractors, physical therapists, exercise physiologists, massage therapists, professional sports teams and others, concerned about wellness and health find the AIS method of stretching informative and effective.
 - a. How the AIS method is used for performance enhancement in sports.
 - b. AIS is used for injury prevention, rehabilitation and neuromuscular re-education..
- B. Appraise and implement concepts of Active Isolated Stretching(AIS) techniques for effective dynamic facilitated stretching of major muscle groups.
 1. Ability to restore body balance through the AIS method of stretching.
 2. Create and provide effective dynamic facilitated stretches of major muscle groups.
 3. Ability to control the body's stretch reflexes in conjunction with specific isolated manual release of individual muscles and their corresponding muscle groups.
 4. Demonstrate and activate the antagonistic muscle group contraction, showing the full range of motion and flexibility.
- C. Adapt techniques to meet the needs of individuals with physical limitations and/or disabilities.
 1. Understand the benefits of AIS as an effective method for postural restoration, performance enhancement, injury prevention and rehabilitation.
 2. Understand the contribution of AIS to the science of kinesiology and it practical application to special populations.

3. Create and understand the various techniques of AIS that allow for gentle stretching movements invigorating the circulatory and neuromuscular systems which help to alleviate many symptoms for persons with special needs.
- D. Identify and perform the five I's of Active Isolated Stretching (AIS) methods.**
1. Identify the specific muscles to be stretched.
 2. Isolate the muscles to be stretched by using precise localized movements.
 3. Intensify the contractile effort of the agonist muscles opposite to the antagonist muscles that are reciprocally relaxing and lengthening on the opposite side of the joint.
 4. Innervation reciprocal innervation (tissue signaled to contract) contracting action of a muscle or muscle group which is neurologically encouraged to contract while the opposite side muscles are prepared to relax.
 5. Inhibition - Reciprocal inhibition reaction of a muscle or muscle group which neurologically signaled to relax while the opposite side muscles receive nerve signal to contract.
- E. Understand and describe the benefits of a rigorous stretching program and how it effects biomechanical balance.**
1. Improve preparation for athletic activity.
 2. Optimize muscle and tendon range of motion.
 3. Facilitate biomechanical balance.
 4. Reduce risk of muscle, tendon, ligament, and joint injuries.
 5. Reduced postural changes that frequently occur in the aging process.
 6. Rehabilitate muscle, tendon, and ligament injuries.
 7. Enhance athletic performance by increasing the muscle tendon fascia returning it to it's optimal length.
 8. Maximize potential and level of athletic performance.
- F. Recognize and apply fundamental exercise physiology, nutrition, hydration and wellness concepts in regards to age, gender, and genetics.**
1. Components of a "healthy lifestyle" and how these concepts can vary based upon gender, genetics, and age.
 2. Importance of cardiovascular exercise, strength training, flexibility and body composition in achieving a healthy lifestyle.
 3. Definitions of a "healthy lifestyle"
 4. Benefits of strength development
 5. Benefits of flexibility
 - a. Importance of nutrition and the overall well-being of an individual.
 - b. Diets: cultural variations and healthy choices, vegan, vegetarian, fad diets.
 - c. Fat loss theories: individual metabolic rates, gender and genetic variations, age variations.
 - d. The effects of a poor diet on flexibility.
 6. Importance of nutrition, proper hydration to prevent injuries and cramps.
 7. FITT Principle (frequency, intensity, time and type) and it's relevance to a healthy program of fitness.

G. Application of the principles of AIS individually or with a partner.

1. Components of a "healthy lifestyle" and how these concepts can vary based upon gender, genetics, and age.
 - a. Definitions of a "healthy lifestyle"
 - b. Importance of cardiovascular exercise, strength training, flexibility and body composition in achieving a healthy lifestyle.
 - c. Cardiovascular/Aerobic Exercise Defined
 - d. Benefits of strength development
 - e. Benefits of flexibility
 - f. Importance of Nutrition
2. FITT Principle (frequency, intensity, time and type) and it's relevance to a healthy program of fitness.

VI. Assignments**A. Reading**

1. Textbook
2. Handouts

B. Writing

1. Written assessment
2. Essay based upon the textbook, handouts and class discussion.
3. Written exam based upon the textbook readings, lecture/demonstrations, and handouts.

C. Practical

1. Practice the AIS system of stretching individually and with a partner twice a week to learn the concepts and benefits of this technique.
2. Practice the AIS stretching techniques and be able to identify specific muscles being stretched.

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
 Quiz and examination review performed in class
 Collaborative learning and small group exercises
 Lecture/demonstration

VIII. Methods of Evaluating Objectives

- A.** Written flexibility and posture assessments based upon pre and post measurements of various stretching exercises.
- B.** Written paper that requires some research documenting three outside sources, one from a book, one from a magazine and one from websites. This assignment is to describe three exercises (with pictures if possible) to help the student stretch out their tightest muscles.
- C.** Practical exam in which the student demonstrates the ability to perform AIS stretching exercises using proper techniques.
- D.** Comprehensive written exam on the principles of AIS, the techniques, and identification of the

muscles being stretched during flexibility exercises.

IX. Texts and Supporting References

A. Examples of Primary Texts and References

1. *Text: Fahey, Thomas, Insel, Paul and Roth, Walton. "Fit and Well Brief 10th Edition." McGraw-Hill Publishing Co., San Francisco, CA, 2011.

B. Examples of Supporting Texts and References

1. Blahnik, Jay, "Full-Body Flexibility," Human Kinetics, Champaign, IL, 2004
2. McAtee, Robert E., Charland, Jeff, "Facilitated Stretching," Human kinetics, Champaign, IL, 2007
3. Forman, Jeffrey, "Managing Physical Stress with Therapeutic Massage, Thompson Delmar Learning, Clifton Park, NY, 2007
4. Mattes, Aaron L., "Active Isolated Stretching: The Mattes Method,": Aaron L. Mattes Publishing, Sarasota, FL, 2000.



Credit - Degree Applicable
Effective Quarter: Fall 2013

I. Catalog Information

P E 52T	Integrated Pilates Mat Exercise	0 1/2 Unit(s)
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P E 52TX 1 0/0 Unit(s)

(See general education pages for the requirement this course meets.)

Prerequisite: Physical Education 2P or 2PX or approval of instructor.

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Two hours laboratory for the one-half unit course (24 hours total per quarter); three hours laboratory for the one unit course (36 hours total per quarter).

An introduction to Physical Education through integrated Pilates mat exercise. A variety of equipment will be used to develop core strength and flexibility in this course. Intermediate to advanced Pilates exercises will be practiced to increase and develop muscle mass, discipline of the mind, and rhythmic breathing techniques. Includes exercise physiology concepts, and nutrition.

Course Justification: This course meets requirements in area E for General Education. In addition this course meets the requirements for transfer status to the CSU and UC systems.

SLO (1): Apply knowledge of basic fitness concepts as they apply to health and wellness.

SLO (2): Assimilate proper Pilates techniques while using a variety of equipment.

SLO (3): Ability to practice movement sequences for postural, static and motor skills as they apply to everyday functional activities.

II. Course Objectives

- A.** Examine the global and historical perspective/philosophy of the Pilates training routine from its early development to inclusion within physical education curriculum.
- B.** Expand personal mind and body awareness through practice of the Pilates method while using integrated techniques.
- C.** Create and incorporate Pilates practices for the mind, body and emotions into daily routine.
- D.** Examine and apply basic exercise physiology, nutrition, flexibility, strength, and emotional concepts to improve one's physical condition with consideration for variables due to age, gender, and physical differences.
- E.** Develop movement sequences to improve postural, static, and motor skills as they apply to everyday functional activities.

III. Essential Student Materials

Proper workout attire, and towel

IV. Essential College Facilities

Gym with mat and mats

V. Expanded Description: Content and Form

- A.** Examine the global and historical perspective/philosophy of the Pilates training routine from its early development to inclusion within physical education curriculum.
 1. Joseph Pilates develops exercise program at internment camp during WWI.
 - a. During WWI the British authorities interned Pilates with other German citizens in a camp in the Isle of Man.
 - b. While in the camp Pilates method began to take shape as he trained other inmates in fitness and exercise.
 2. 1926 - First Pilates training school opens in New York City.
 - a. Joseph Pilates and his wife Clara supervised and taught students well into the 1960s.
 - b. Pilates originally called his exercise "Contrology", related to encouraging the use of the mind to control muscles.
 - c. He focused his attention on core postural muscles.
 - d. Method was used as a type of rehabilitation for dancers injuries.
 3. 1967 - Pilates dies but apprentices keep style of exercise alive.
 - a. Disciples such as Romana Kryzanowska and Jay Grimes carried on the work of Joseph Pilates.
 - b. Famous dancers such as George Balanchine and Martha Graham became devotees and regularly sent their students to Pilates for training and rehabilitation. After his death they continued to send students to his disciples because of their belief in Joseph Pilates techniques.
 4. 1991 - Institute for the Pilates method of exercise opens in Santa Fe, New Mexico.
 5. 2000 - the name "Pilates" becomes a generic both in reference to a certain type of exercise and to certain types of equipment used.
 6. 2001 the Pilates Method Alliance (PMA) was founded by Kevin A. Bowen and Colleen Glenn as a non-profit, unbiased information resource dedicated to the teachings of Joseph H. and Clara Pilates
 - a. Law suits filed to fight instructors using the Pilates name.
 - b. The inventor of Stout Pilates won battle over using the Pilates name.
 7. Americans practice Pilates.
 - a. In 2005 11 million people practice the discipline regularly.
 - b. Fourteen thousand instructors are now teaching Pilates in the United States.
 - c. In Portland, OR, the Pilates method which includes concentration is being studied in providing relief from the degenerative symptoms of Parkinson's disease.
- B.** Expand personal mind and body awareness through practice of the Pilates method while using integrated techniques.
 1. Understand the concept of concentration such as control, centering, flowing and precision

movement while using various equipment to perform Pilates exercise.

- a. Center movements while using a variety of equipment.
 - b. Demonstrate the concept of control while balancing and using integrated concepts of the Pilates method.
 - c. Ability to perform movements in a fluid and precise manner using integrated methods of the Pilates exercise program and proper breathing techniques.
2. Perform relaxed movement through mindfulness, techniques of controlled breathing and ability to balance oneself while performing integrated Pilates mat exercise.
- C. Create and incorporate Pilates practices for the mind, body and emotions into daily routine.**
1. Consciously control muscle tension through muscular relaxation techniques while performing day to day activities, and responsibilities.
 - a. While driving a vehicle.
 - b. While walking
 - c. While performing chores around the home and office.
 - d. Consciously improve posture while sitting.
 1. In front of a computer
 2. On the sofa
 3. While driving a vehicle.
 2. Use techniques of concentration to center, relax, and create mind/body harmony throughout a daily routine.
 - a. During other forms of exercise
 - b. Walking and performing day to day activities
 3. Demonstrate breath control to center, relax, and create mind/body harmony.
 - a. While performing other types of exercise
 - b. Relieving excess stress due to daily responsibilities and lifestyle choices.
- D. Examine and apply basic exercise physiology, nutrition, flexibility, strength, and emotional concepts to improve one's physical condition with consideration for variables due to age, gender, and physical differences.**
1. Theories of exercise physiology as it relates to integrated Pilates exercise using a variety of equipment.
 - a. Utilization of large and small muscle groups
 - b. Knowledge of lever actions that create various muscle contractions.
 - c. Different body positions and exercises for flexibility, core strength and relaxation.
 - d. Ability to isolating specific muscles for improvement in flexibility and core strength.
 - e. Apply and use deep breathing techniques during physical activity, and as a stress-management intervention.
 - f. Ability to perform proper exercise techniques for injury prevention and rehabilitation.
 - g. Necessity of a proper and effective warm-up and cool-down.
 2. Nutritional concepts that promote dietary balance and a healthy lifestyle

- a. Appropriate nutrition and habits for wellness
 - b. Understanding pre-class nutrition and individuality
 - c. Dietary habits to influence weight control
- 3. Increase flexibility for all including those with special needs through a program of integrated Pilates exercise.
 - a. Techniques to improve overall flexibility
 - b. Techniques to address individual problems or specific concerns, e.g., low back, hip flexors, shoulders
 - c. Pre and post exercise stretching rationale
- 4. Create a program of strength development for all including those with special needs through a program of integrated Pilates exercise that will improve and strengthen core muscles.
 - a. Techniques and exercises to improve overall strength
 - b. Techniques to address individual strength concerns
 - c. Methods for strength improvement while avoiding injury:
 - 1. Proper form and breathing
 - 2. Selection of appropriate exercise order, large muscle groups to small, using a combination of muscle groups to specific muscle groups.
- 5. Understand individual differences i.e., age, gender, and physical limitations
- 6. Understanding the concept of reversibility, i.e., exercise benefits are subject to reversal of conditioning following an extended cessation of activity
- 7. Knowledge of muscular anatomy incorporated in the movement sequences used in integrated Pilates exercise.
- 8. Knowledge of the fitness and health-related components in Pilates activity.
 - a. Using a stability ball.
 - b. Use of fitness rings
 - c. Use of other appropriate equipment as needed
- E. Develop movement sequences to improve postural, static, and motor skills as they apply to everyday functional activities.
 - 1. Create Pilates practices for the body, mind, and emotions that can be easily incorporated into daily life using knowledge of core strength, flexibility, and breath.
 - 2. Establish a personal routine based upon skills learned in class.
 - 3. Understand and experience increased personal awareness through the systematic practice of integrated Pilates exercise.

VI. Assignments

- A. Reading:
 - 1. Assigned readings from the textbook "Fit and Well."
 - 2. Handouts
 - 3. Media sources

B. Writing:

1. Written essay based upon the readings from the textbook "Fit and Well."
2. Comprehensive written exam
3. Written packet for pre and post flexibility, core strength, and posture assessments.

C. Practical

1. Practice Pilates mat exercise a minimum of 2 times a week.
2. Demonstrate the ability to make the mind/body connection while performing intermediate to advanced Pilates exercises on various types of equipment.

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
 Collaborative learning and small group exercises
 Lecture/demonstration
 Homework and extended projects

VIII. Methods of Evaluating Objectives

- A. Written essay based upon the book "Fit and Well," on the importance of Pilates in the relationship to muscular strength, muscular endurance, flexibility, the mind/body connection, and posture.
- B. Comprehensive written exam on the the textbook "Fit and Well."
- C. Written packet showing results for pre and post assessments, in core strength, flexibility, and posture.
- D. Practical exam in which the student demonstrates the ability to perform intermediate to advanced Pilates exercises both on the mat and using a variety of equipment.

IX. Texts and Supporting References**A. Examples of Primary Texts and References**

1. *Fahey, T. D., Insell, P. M., & Roth, W. T. "Fit & Well", 10th brief ed., San Francisco, CA, McGraw Hill Publishing, Co. 2012.

B. Examples of Supporting Texts and References

1. Menezes, A., "The Complete Guide to the Pilates Method", Hunter House Publishers, Boston, MA, 2002
2. Siller, B., "The Pilates Body", Broadway Books, New York, NY. 2004
3. "Pilates Intermediate Mat Workout", Gaiam Company, 2000 (video).
4. Archer, Shirley, "Pilates Mat Training", American Council on Exercise (ACE), San Diego, CA, 2004.



Credit - Degree Applicable
Effective Quarter: Fall 2013

I. Catalog Information

P E 53B High Intensity Indoor Cycling 0 1/2 Unit(s)

P E 53BX High Intensity Indoor Cycling 1 0/0 Unit(s)

(See general education pages for the requirement this course meets.)

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Two hours laboratory for the one-half unit course (24 hours total per quarter); three hours laboratory for the one unit course (36 hours total per quarter).

An introduction to the discipline of Physical Education through indoor cycling. Includes an historical examination of indoor cycling/spinning. The cycling program is an individual paced, competitive group-training program designed to develop cardiovascular fitness at higher intensity levels. Using interval training students will improve aerobic and anaerobic energy systems. Utilizing a variety of equipment student will develop core endurance and strength. Students will be able to assess and design a personal workout program for an indoor cycle.

Course Justification: This course meets requirements in area E for General Education. In addition this course meets the requirements for transfer status to the CSU and UC systems.

SLO (1): Apply knowledge of basic fitness concepts as they apply to health and wellness.

SLO (2): Ability to formulate and design a program for core strength and stabilization exercises.

SLO (3): Ability to create an interval cycling program based upon individual indoor cycling goals.

II. Course Objectives

- A.** Examine the perspective of Indoor Cycling in a historical and global context.
- B.** Formulate and organize core strength through strength and stabilization exercises.
- C.** Enhance cardiovascular endurance involving high intense interval training.
- D.** Create interval program based on individual's personal indoor cycling goals.
- E.** Demonstrate effective and safe riding technique to maximize endurance gains.

III. Essential Student Materials

Appropriate training attire, and proper footwear.

IV. Essential College Facilities

Aerobic room with stereo system and stationary bikes.

V. Expanded Description: Content and Form

- A. Examine the perspective of Indoor Cycling in a historical and global context.**
 - 1. 1980's Johnny G derived "spinning" from outdoor cycling
 - a. "spinning" is a copyrighted name
 - b. In his garage he constructed what is known as a spinning bicycle
 - c. Prior to 1989 held spinning classes in his garage
 - 2. 1989 opened own spinning studio in Santa Monica, CA
 - a. 1990 began certifying instructors
 - b. Currently in over 100 countries
 - c. 6,000 facilities
 - 3. 1994 became a corporation
 - a. Maddogathletics
 - b. Spinning.com
 - 4. IDEA (International Dance Exercise Association) incorporates spinning into their international offerings for fitness professionals (1996).
- B. Formulate and organize core strength through strength and stabilization exercises.**
 - 1. Introduction of key component of floor exercises on a mat that are used to develop core strength and stabilization.
 - 2. Concepts of increasing balance and coordination relative to core strength on an indoor cycling bike.
- C. Enhance cardiovascular endurance involving high intense interval training.**
 - 1. Perform cardiovascular strength and endurance through interval anaerobic training.
 - 2. Introduce interval exercise through low to high intensity heart rate training techniques and theory.
 - 3. Introduce cardiovascular endurance and incorporate components of aerobic exercise through steady state heart rate training.
- D. Create interval program based on individual's personal indoor cycling goals.**
 - 1. Student will learn concepts of interval training
 - 2. Student will learn to build a personalized interval indoor cycling program
- E. Demonstrate effective and safe riding technique to maximize endurance gains.**
 - 1. Terminology, equipment, and riding guidelines
 - a. Safety procedures for indoor cycling
 - b. Warm-up with stretches
 - c. Bike set-up
 - d. Proper mounting and dismounting
 - 2. Proper riding technique and use of equipment
 - a. Hand Positions (3)
 - b. 5 Core movements
 - 1. Seated flats

2. Standing Flats
 3. Seated Hills
 4. Standing hills
 5. Jumps
3. Pedaling cadence and proper workload.
 - a. Spinning routines
 - b. Jumps
 - c. Sprints
 - d. Timed combination workouts
 - e. Cooldown
 4. Achieve target heart rate in classes ranging from beginners to elite athletes.
 5. Instructor-guided practice of daily spinning workout utilizing training heart-rate levels.

VI. Assignments

- A. Progression journal throughout the quarter
- B. Essay based on specific chapters relating to indoor cycling.
- C. Lectures and handouts from the textbook about health and fitness.
- D. Assessments at the beginning and end of quarter. Assessments will include push-ups, core strength and leg exercises.
- E. Assigned reading from textbook and other related materials to health and fitness.

VII. Methods of Instruction

Lecture and visual aids
 Homework and extended projects
 Discussion and problem solving performed in class
 Discussion of assigned reading
 In-class essays
 Collaborative learning and small group exercises
 Lecture/demonstration

VIII. Methods of Evaluating Objectives

- A. Written test on equipment safety and riding guidelines
- B. Assessment Measurements from the beginning to the end of quarter
- B. Eight question essay form final
- C. Essay based upon textbook and progression journal throughout the quarter.

IX. Texts and Supporting References

- A. Examples of Primary Texts and References
 1. Fahey, Insel, and Roth, "Fit and Well, Brief 10th Edition." Mc Graw-Hill Publishing Co., San Francisco, CA, 2012.
- B. Examples of Supporting Texts and References

1. Corbin, Charles B., Welk, Gregory J., Corbin, William R., "Concepts of Fitness and Wellness" 6th edition, San Francisco, CA, McGraw Hill, 2004.
2. DVD by Healthy Living, "Indoor Cycling Training".
3. Video, by Healthy Living, "Indoor Cycling Interval Training",
www.spinning.com
4. Powers, Scott K., Dodd, Stephen L., "Total Fitness and Wellness" 4th edition, San Francisco, CA, Pearson Publishing Co., 2005.
5. Thygerson, Alton L., "Fit to be Well," Sudbury, MA, Jones & Bartlett, Publishers, 2005.



Credit - Degree Applicable

Effective Quarter: Fall 2013

I. Catalog Information

P E 54H Massage Therapy Internship in Adaptive Physical Education Lab 1 Unit(s)

P E 54J 2 Unit(s)

P E 54K 3 Unit(s)

Prerequisite: Physical Education 54 and successfully completion of the class selected for internship. Student must also receive approval from the instructor of the class in order to participate.

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).

Students shall assume the role of Adaptive Physical Education Assistant under the supervision of Adaptive Physical Education instructors. Schedule is determined by agreement between student and Adaptive Physical Education intern supervisor.

Course Justification: Many hours of practical experience are required for State and National certification. It is hands on practical experience for the student to become efficient at administering effective treatments as a massage therapist. Diversified internship opportunities help expose students to all aspects of the massage therapy industry.

SLO (1): Be able to perform a therapeutic massage on a student with a physician's verified physical limitation.

SLO (2): Be able to document treatments in SOAP note format.

II. Course Objectives

- A.** Review each client's medical history through the client interview and with Adaptive Physical Education instructor in order to develop a suitable massage plan.
- B.** Perform massage techniques on a variety of Adaptive Physical Education students.
- C.** Utilize a variety of massage techniques based on the therapist's own analysis and time constraints.
- D.** Develop a plan, if needed, for subsequent treatments.
- E.** Exhibit skill and proficiency in SOAP note charting techniques.
- F.** Enhance communication skills.

III. Essential Student Materials

Linens & massage lotion

IV. Essential College Facilities

Massage Table

V. Expanded Description: Content and Form

- A.** Review each client's medical history through the client interview and with Adaptive Physical Education instructor in order to develop a suitable massage plan.
 1. Review the medical history form and research all pathologies they are unfamiliar with.
 2. Perform a thorough client interview.
 3. Physical assessments through palpation, ROM tests etc. documenting observations in SOAP notes.
 4. Design a safe massage treatment program keeping any contraindications in mind.
- B.** Perform massage techniques on a variety of Adaptive Physical Education students.
 1. Perform massage treatments or assist students with their individualized exercise plan developed by the Adaptive Physical Education Instructor.
 2. Get first hand experience working with different pathologies.
- C.** Utilize a variety of massage techniques based on the therapist's own analysis and time constraints.
 1. Massage sequence.
 - a. Utilize the information gained from the assessment and instructor input and interview to tailor each session to the individual needs of the client.
 - b. Utilize a wide variety of strokes.
 - c. To help the APE student achieve their educational objectives.
 2. Flexibility and adaptability.
 - a. Be able to perform a effective massage from anywhere from 10 to sixty minutes.
 - b. Be able to adapt treatments with respect to the physical limitations of the client.
- D.** Develop a plan, if needed, for subsequent treatments.
 1. Assess client post-massage.
 - a. Utilize same test as pre-massage assessment to note changes.
 - b. Document changes due to massage in the SOAP note.
 2. Document future treatment plan.
 - a. Supply client with home treatment plan and determine future massage frequency.
 - b. Make note of any techniques that worked well, those that did not work well and areas you'd like to focus on for next time.
- E.** Exhibit skill and proficiency in SOAP note charting techniques.
 1. Clear, concise SOAP note chart completed for each client worked with.
 2. Exhibit skill and proficiency in SOAP notes daily for approval by supervisor.
 3. Utilize prior SOAP notes to create on-going treatment plan and assess progress.
- F.** Enhance communication skills.

1. This internship will offer the student the opportunity to develop effective communication skills with other health care professionals ie: the instructor.
2. Gain experience communicating with clients with physical limitations.
3. Practice effective listening skills.

VI. Assignments

A. Completion of daily SOAP notes for APE Internships.

1. Submitted, signed off and turned in before finals week each quarter.
2. SOAP Note format must be followed and printed legibly in ink.
3. Sign and date each SOAP note in ink.

B. Hours Log.

1. Record hours worked daily.
2. Log must be signed daily by supervisor.

VII. Methods of Instruction

Discussion and problem solving
Collaborative learning

VIII. Methods of Evaluating Objectives

- A.** Assessment of SOAP notes.
- B.** Supervisor's evaluation of student's progress and techniques.
- C.** Hours logged- 36 hours required for each unit of internship per quarter.

IX. Texts and Supporting References

A. Examples of Primary Texts and References

1. Beck, Mark. The Theory and Practice of Therapeutic Massage. Albany, NY: Milady Publishing Company, 2011. 5th edition.

B. Examples of Supporting Texts and References

1. Travell, Janet and David Simons. Myofascial Pain and Dysfunction. Vol I and II. Baltimore, MD: Williams and Wilkins, 1999.
2. Forman, Jeffrey. Managing Physical Stress with Therapeutic Massage. Clifton Park, NY, Thompson Delmar Learning, 2007.

1 of 3

V. Expanded Description: Content and Form

- A.** Thoroughly review all of the strokes, techniques and modalities instructed in the class.
 - 1. Understand the concepts involved with each skill instructed.
 - 2. Demonstrate the skills pertinent to the class using proper form.
- B.** Through demonstration and explanation help less advanced students understand concepts and apply strokes properly.
 - 1. Assist instructor with helping students learn proper draping, posture and body mechanics, and stroke applications and techniques in the classroom setting under the direct supervision of the instructor.
 - 2. Assist instructor with classroom setup and break down.
- C.** Give constructive feedback to students reinforcing proper posture and body mechanics.
 - 1. Be able to effectively communicate with students in regards to correcting their posture, body mechanics and skill performance.
 - 2. Be able to demonstrate proper technique.
- D.** Complete a 4 treatment case study documenting the treatments in Soap format and submitting the completed soapnotes.
 - 1. Clear, concise SOAP (cad) note charts completed for each treatment.
 - 2. Utilize prior Soap notes to create on-going treatment plan and assess progress.

VI. Assignments

- A.** Completion of Case Study with Soap notes.
 - 1. Case study and soap notes due by tenth week of quarter
 - 2. SOAP Note format must be followed and printed legibly.
 - 3. Sign and date each SOAP Note.
- B.** Hours Log
 - 1. Record hours worked daily
 - 2. Log must be signed daily by supervisor

VII. Methods of Instruction

Reading and reviewing all massage theories being instructed in class.
Review and demonstration of all practical skills being presented by instructor in class.

VIII. Methods of Evaluating Objectives

- A.** Assessment of Soap notes and case study.
- B.** Supervisor's evaluation of student's progress and techniques.
- C.** Hours logged- 36 hours required for each unit of internship per quarter.

IX. Texts and Supporting References

- A.** Examples of Primary Texts and References
 - 1. Beck, Mark. The Theory and Practice of Therapeutic Massage. Albany, NY: Milady

Publishing Company, 2011. 5th edition.

B. Examples of Supporting Texts and References

1. Travell, Janet and David Simons. Myofascial Pain and Dysfunction. Vol I and II. Baltimore, MD: Williams and Wilkins, 1999.
2. Forman, Jeffrey. Managing Physical Stress with Therapeutic Massage. Clifton Park, NY, Thompson Delmar Learning, 2007.



Credit - Degree Applicable
Effective Quarter: Fall 2013

I. Catalog Information

P E 54P	Sports Massage Internship	1 Unit(s)
P E 54Q		2 Unit(s)
P E 54R		3 Unit(s)

Prerequisite: Physical Education 54 and 54B and permission from sports massage instructor.

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter).

With instructor approval students shall assume the role of Sports Massage Therapist working in the training room, under the supervision of an athletic trainer or with an athletic team, under the supervision of a coach. This hands on opportunity will provide the student a chance to refine their sports massage skills by working with athletes prior to competition, post competition and on their health maintenance between events.

Course Justification: To help hone their skills so that they can administer efficient and effective treatments a massage therapist must have the opportunity to participate in a variety of hands-on practical experience. These hours of practical experience are required for State and National certifications.

SLO (1): Conduct an effective sports massage based upon the results of physical assessment and competition status.

SLO (2): Document all treatments using proper soap note format.

II. Course Objectives

- A. Review each athletes medical history and treatment goals through an oral interview and physical assessments
- B. Perform massage techniques on a variety of athletes and in a variety of settings and athletic venues.
- C. Utilize numerous massage techniques based on the therapist's own analysis, time constraints and the athletic status of the client.
- D. Develop a plan, if needed, for subsequent treatments.
- E. Exhibit skill and proficiency in SOAP note charting techniques.

III. Essential Student Materials

Linens and massage lotion

IV. Essential College Facilities

Massage Table

V. Expanded Description: Content and Form

- A.** Review each athletes medical history and treatment goals through an oral interview and physical assessments
 1. Review the medical history form and research pathologies.
 2. Perform a thorough client Interview.
 3. Physical assessment through palpation, ROM tests etc.
 4. Document observations in SOAP note.
 5. Design a safe massage treatment program keeping contraindications and event status in mind.
- B.** Perform massage techniques on a variety of athletes and in a variety of settings and athletic venues.
 1. Work with De Anza College athletes under the supervision of the trainers and coaches.
 2. Perform pre event , post event and maintenance massages for athletes
- C.** Utilize numerous massage techniques based on the therapist's own analysis, time constraints and the athletic status of the client.
 1. Massage sequence
 - a. Utilize the information gained from the intake form, assessments and interview to tailor each session to the individual needs of the athlete.
 - b. Utilize a wide variety of strokes.
 - c. Document techniques and modalities used in the SOAP notes.
 2. Flexibility and adaptability
 - a. Be able to perform an effective massage from anywhere from 10 to sixty minutes.
 - b. Be willing to work in a variety of settings.
- D.** Develop a plan, if needed, for subsequent treatments.
 1. Assess client post-massage
 - a. Utilize same tests for pre-massage assessment to note changes
 - b. Document changes due to massage in the SOAP note.
 2. Document future treatment plan.
 - a. Supply client with home treatment plan and determine future massage frequency.
 - b. Make note of any techniques that worked well, those that did not work well and areas you'd like to focus on for next time.
- E.** Exhibit skill and proficiency in SOAP note charting techniques.
 1. Clear, concise SOAP note chart completed for each client worked with.
 2. Submit completed SOAP notes daily for approval by supervisor.
 3. Utilize prior SOAP notes to create on-going treatment plan and assess progress.

VI. Assignments

- A.** Completion of daily SOAP Notes for Sports Massage Internships.
 - 1. Submitted, signed off and turned in before finals week each quarter.
 - 2. SOAP Note format must be followed and printed legibly
 - 3. Sign and date each SOAP note
- B.** Hours Log
 - 1. Record hours worked daily
 - 2. Log must be signed daily by supervisor

VII. Methods of Instruction

Technique instruction by athletic trainers
 Feedback from athletes, athletic trainers and coaches.
 Online or textbook review of pathologies and recommended treatment protocols for this pathology.

VIII. Methods of Evaluating Objectives

- A.** Assessment of Soap Notes.
- B.** Supervisor's evaluation of student's progress and techniques.
- C.** Hours logged- 36 hours required for each unit of internship.

IX. Texts and Supporting References

- A.** Examples of Primary Texts and References
 - 1. Beck, Mark. The Theory and Practice of Therapeutic Massage. Albany, NY: Milady Publishing Company, 2011. 5th edition.
- B.** Examples of Supporting Texts and References
 - 1. Travell, Janet and David Simons. Myofascial Pain and Dysfunction. Vol I and II. Baltimore, MD: Williams and Wilkins, 1999.
 - 2. Forman, Jeffrey. Managing Physical Stress with Therapeutic Massage. Clifton Park, NY, Thompson Delmar Learning, 2007.



Credit - Degree Applicable
Effective Quarter: Fall 2013

I. Catalog Information

P E 56D

Advanced Beginning Golf

0 1/2 Unit(s)

P E 56DX

1 0/0 Unit(s)

(See general education pages for the requirement this course meets.)

Prerequisite: Physical Education 16A or 16AX, or permission of instructor.

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Two hours laboratory for the one-half unit course (24 hours total per quarter); three hours laboratory for the one unit course (36 hours total per quarter).

An introduction to the discipline of Physical Education through the sport of golf at the advanced beginning level. Includes a global and historical examination of the sport, rules, equipment, facilities, etiquette, and safety. The skills portion of the course will encourage

Course Justification: This course meets requirements in area E for General Education. In addition this course meets the requirements for transfer status to the CSU and UC systems.

SLO (1): Ability to perform swing strokes, and putting skills at advanced beginner level.

SLO (2): Knowledge of and use of the mid irons, for distance and specific shot requirements.

SLO (3): Apply knowledge of basic fitness concepts as they apply to health and wellness.

II. Course Objectives

- A.** Examine golf in a historical and cultural context from the 1400's to the present.
- B.** Utilize media sources, texts, and the Internet to examine significant events in world history, which have influenced the development of the game of golf.
- C.** Analyze the physiological differences between gender and age and their influences on the development of golf skills.
- D.** Recognize, identify and apply the rules, and equipment of the game, scoring, etiquette/social behaviors and safety.
- E.** Develop knowledge of applied physics relative to force development and swing mechanics as it relates to putting, chipping, pitching, and full swing motions through guided practice sessions using mid irons i.e. 7, 6, and 5.
- F.** Describe technological changes in equipment and how it has changed the way in which children, adults, and older adults play the game.
- G.** Understand and apply basic exercise physiology, nutrition, flexibility, and strength concepts to

enhance physical condition for playing the game of golf at a more advanced level.

III. Essential Student Materials

Appropriate golf attire, appropriate golf shoes, and nine practice golf balls

IV. Essential College Facilities

Golf range, golf mats, golf clubs, classroom, video monitor, and player.

V. Expanded Description: Content and Form

- A.** Examine golf in a historical and cultural context from the 1400's to the present.
 1. Understand how the game of golf has evolved since the 1400's.
 - a. The Dutch called it KOLF. Played on the frozen canals.
 - b. France and Belgium utilized various cross-country variations.
 - c. Scotland called it GOWF. Blamed golf for interfering with the practice of archery for defense efforts. Could therefore, play golf only on Sundays.
 2. Mary, Queen of Scots, became the first lady to play golf(1567).
 3. First account of golf equipment, Scotland in 1574.
 4. First patent of golf ball making in 1618, Scotland
 5. First record of a round of golf at Dornock in 1628.
 6. The increased medial coverage of golf has exposed the game to various cultures internationally, i.e. Korea, Australia, Sweden, Germany, South Africa, Mexico, Spain, etc.
 7. Within the U.S.A. the breakdown of country-club rules and regulations due to discrimination laws towards minorities has bridged the gap for all those intending on purchasing a membership, i.e. Blacks, women.
 8. Golf for disabled individuals is on the rise due to the Casey Martin case, Supreme Court, 2000.
- B.** Utilize media sources, texts, and the Internet to examine significant events in world history, which have influenced the development of the game of golf.
 1. Golf as a pastime during war.
 2. Influence of television and increased purse winnings.
 - a. Increased exposure spurs growth of game (more people are exposed to the game).
 - b. Marketing of the professional tours: PGA, Senior PGA, and LPGA.
 - c. International competition and events encourages country vs. country rivalry.
 1. Curtis Cup and Walker Cup for amateurs.
 2. Ryder Cup and Solheim cup for professionals.
 3. All "The Majors" for PGA, Senior PGA, and LPGA.
 - d. The historical media coverage of certain players have contributed to the development of the game for the wealthy, minority, women, and various countries around the world.
 1. Arnold Palmer, and Jack Nicklaus.
 2. Tiger Woods, and Nancy Lopez.

3. Annika Soranstan (Sweden), Si Ri Pak (Korea), Kari Webb (Australia), Greg Norman (Australia), Ernie Els (South Africa), and Vijay Singh (India).
- C. Analyze the physiological differences between gender and age and their influences on the development of golf skills.
 1. Gender commonalities
 - a. Safety
 - b. Overall strengths
 - c. Overall weaknesses
 2. Gender differences
 - a. Individual strengths
 - b. Individual weaknesses
 3. Age differences
 - a. Overall strengths
 - b. Overall weaknesses
 - c. Title IX, and the influx of scholarships and more opportunities for women and girls to participate in the game of golf.
- D. Recognize, identify and apply the rules, and equipment of the game, scoring, etiquette/social behaviors and safety.
 1. Scoring systems
 - a. Match play
 - b. Stroke play
 - c. Scoring
 - d. Other forms of play, i.e., best-ball, four-ball match play, scramble.
 - e. Utilization of scorecard
 2. Basic Rules
 - a. Overall objective of game
 - b. Definitions and glossary of terms of golf
 - c. Common rule infractions
 - d. Introduction of the rule book (U.S.G.A)
 - e. Boundaries
 - f. Etiquette/social behavior
 - g. Safety and awareness
 - h. Proper dress attire
 3. Equipment used in the game of golf.
 - a. Review of scoring irons
 - b. Introduce mid irons - 7, 6 and 5
- E. Develop knowledge of applied physics relative to force development and swing mechanics as it relates to putting, chipping, pitching, and full swing motions through guided practice

sessions using mid irons i.e. 7, 6, and 5.

1. Simple applied physics
 - a. Transfer of momentum
 - b. Swing speed and creating power
 - c. Weight shifts, trunk rotation
 - d. Swing patterns
 - e. Importance of a good set-up, and grip
 - f. Importance of balance
 - g. Importance of a follow through with motion
 - h. Direction of force translating to direction of ball
2. Fundamental descriptions and skills acquisition
 - a. Vocabulary
 - b. Putting, chipping, pitching, and full swing motions.
 - c. Different grips
 - d. Different setups
 - e. Different swing mechanics
 1. Scoring irons vs. mid irons
 2. Different lies
 3. Use of clubs while on fairway grass vs. long and thick grass.
 - f. Chipping; bump and run
 - g. Pitching: quarter, half, and three-quarter swing for shots within 100 yards.
3. Drills
 - a. Large groups
 - b. Small groups
 - c. Partners
 - d. Individuals
 - e. Modifications for individual limitations
4. Strive to perform conventional techniques and learn how to adapt based on individual strength, flexibility, and coordination.
- F. Describe technological changes in equipment and how it has changed the way in which children, adults, and older adults play the game.
 1. Changes in materials/golf club composition- graphite, boron, light weight steel, titanium.
 2. Changes in club fitting techniques
 - a. Static fit
 - b. Dynamic fit
 3. Changes in measurements of golf club-length, lie, loft, flex, weight

4. Implications - how the game has changed
 - a. Younger, older/weaker players can swing the club faster and easier.
 - b. Golf club composition imparts more power with less effort
 - c. Players can hit the ball farther due to more club-head speed
 - d. Improved technology with equipment has improved the game of golf.
 - e. Technology and aerodynamics have greatly improved the construction of the golf ball for different distances and trajectories.
 - f. Replacement of metal spikes with soft spikes in golf shoes have protected the grasses on putting surfaces.
5. Use of cart
 - a. Walking vs. riding in a cart
 - b. Carrying equipment vs. pulling a cart
- G. Understand and apply basic exercise physiology, nutrition, flexibility, and strength concepts to enhance physical condition for playing the game of golf at a more advanced level.
 1. Aerobic vs. anaerobic exercise
 2. Nutritional concepts with special notes regarding specific needs for various populations: youth, adult, older adults, highly trained athletes, and gender.
 - a. Balanced diet for wellness
 - b. Pre-class and pre-play meals
 - c. Meals during play and competition
 3. Flexibility concepts with special notes regarding specific needs for various populations: youth, adult, older adults, highly trained athletes and gender.
 - a. Techniques for overall flexibility
 - b. Techniques specific to golf
 - c. Techniques for individuals with physical limitations
 - d. Theories about stretching during warm-up and post play
 4. Strength concepts with special notes regarding specific needs for various populations: youths, adults, older adults, highly trained athletes and gender.
 - a. Techniques for overall strength
 - b. Techniques specific to golf
 - c. Techniques to avoid common injuries

VI. Assignments

A. Readings

1. Textbook
2. Media sources, such as "Golf for Woman" and "Golf Today", "The Golf Channel", and Internet
3. Handouts

B. Writing

1. Write a two page essay concerning a major golf tournament viewed on television.
 2. Write a two page essay based on the textbook "Fit and Well," about basic exercise physiology, including, muscular strength and endurance, flexibility, and cardiovascular endurance.
- C. Practical - practice golf mechanics at a local driving range 3 times during the quarter.

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
 Discussion and problem solving performed in class
 Quiz and examination review performed in class
 Collaborative learning and small group exercises
 Lecture/demonstration

VIII. Methods of Evaluating Objectives

- A. Practical skills testing, for mid irons including set-up, follow through, grip, balance for chipping, pitching, full swing motions and putting strokes.
- B. Quality of class participation and interaction during group discussions, demonstrations, and collaborative group exercises.
- C. Evaluation of written essay papers - one on a major golf tournament viewed on television and one based upon the readings from the textbook "Fit and Well."
- D. Written tests including a final examination based upon the textbook readings, classroom discussions, and hand-outs.

IX. Texts and Supporting References

A. Examples of Primary Texts and References

1. Fahey, T., Roth, P., Insel, W. "Fit and Well - Brief 10th Edition," San Francisco, CA, McGraw-Hill Publishing Co., 2011.

B. Examples of Supporting Texts and References

1. Newell, Steve, Ells, Ernie, and Lucas, Sharon, "The Golf Instruction Manual," Dorling Kindersley Publishing Inc., 2012
2. "Golf Today" magazines
3. "Golf for Women" magazine
4. Hogan, Ben. "Five Lessons - The Modern Fundamentals of Golf." New York. Simon and Schuster Pub. 1997.
5. Watson, Tom, "The Timeless Swing," Atria Books/Simon and Schuster, New York, NY, 2011.

1 of 3

- A.** Employ physical measurement skills.
 - 1. Tools used in measuring motor performance.
 - 2. History of human motor performance theory.
- B.** Recognize flexibility in human movement.
 - 1. Gender differences in flexibility.
 - 2. Static and dynamic flexibility.
 - 3. Structural limits to flexibility.
 - 4. Flexibility and motor performance.
- C.** Assess cardiorespiratory fitness level.
 - 1. Cardiorespiratory control areas.
 - 2. Stimulation, innervation and action of the Cardiorespiratory areas.
 - 3. Cardiorespiratory control at rest and during exercise.
- D.** Assess basic muscular strength levels.
 - 1. Training methods in human strength development
 - 2. Specificity of training principle.
 - 3. The overload principle.
 - 4. Intensity, frequency and duration of effort.
- E.** Plan individual strategies for fitness development and improvement.
 - 1. Seasonal training considerations.
 - 2. Preliminary and cool-down exercises.
 - 3. Training methods for anaerobic performance.
 - 4. Periodization training methodology.
 - 5. Effects of detraining.
- H.** Understand basic exercise physiology and nutrition.
 - 1. History of exercise physiology.
 - 2. Sports Medicine and Kinesiology
 - 3. Nutrition and motor performance

VI. Assignments

- A.** Selected readings and assignments in various motor development and human performance texts.
- B.** Written assignments, short and mid length. Term paper and in-class calculations including some algebra and geometry.
- C.** Verbal and written sport specific critique and prescription.

VII. Methods of Instruction

Lecture and visual aids
Discussion of assigned reading

Discussion and problem solving performed in class
 Quiz and examination review performed in class
 Homework and extended projects
 Field observation and field trips
 Guest speakers
 Collaborative projects

VIII. Methods of Evaluating Objectives

- A.** Written exams.
 - A.** Weekly written and performance quizzes.
 - B.** Creation of a customized personalized workout document.
- B.** Written Essays
- C.** Human performance final utilizing individual motor capability.
- C.** Motor performance evaluations.
- D.** Written final examination.
- E.** Self-assessment on motor performance.

IX. Texts and Supporting References

- A.** Examples of Primary Texts and References
 - 1.** Fahey, T., Insel, P., Roth, W. Fit and Well. 10th ed. San Francisco, CA: McGraw-Hill Publishing Co., 2011.
- B.** Examples of Supporting Texts and References
 - 1.** Foss, Marie, Keteyian, Steven. Physiological Basis for Exercise and Sport, 8th edition. McGraw-Hill Companies, 2008.
 - 2.** Gallahue, David I. Goodway, Jacqueline D. Ozmun, John C. Understanding Motor Development. 7th edition. McGraw-Hill Companies, 2012.

1 of 3

IV. Essential College Facilities

Gymnasium with audio/visual equipment.

V. Expanded Description: Content and Form

- A.** Examine anaerobic training principles.
 - 1. Anaerobic power with respect to a specific muscle group.
 - 2. Anaerobic energy systems within a muscle
- B.** Evaluate periodization as a key training principle.
 - 1. The structure and sequential development of motor skill training using blocks of time.
 - 2. Macro and mesocycles of time.
- C.** Compare the major training phases in human performance.
 - 1. Off-season training regimens.
 - 2. Preseason training elements.
 - 3. In-season training regimens.
- D.** Assess the physiological effects of anaerobic training.
 - 1. ATP production and anaerobic glycolysis.
 - 2. High Intensity training and anaerobic performance.
- E.** Evaluate the level of anaerobic training on the skeletal muscle.
 - 1. Increased capacities of ATP-PC system.
 - 2. Role of enzymes and associated biochemical changes as a result of training.
 - 3. Type I versus Type II muscle fiber hypertrophy controversies.
- F.** Evaluate the effect of anaerobic training and the heart.
 - 1. The "athletic heart" and echocardiography developments in the 1970s.
 - 2. Pressure overload versus volume overload in the athletic heart.
 - 3. Controversies between aerobic and anaerobic trained athletes.
- G.** Compare and contrast anaerobic training methods to various sports.
 - 1. Motor skill variations in sport specific anaerobic applications.
 - 2. Movement patterns specific to a sport.

VI. Assignments

- A.** Reading
 - 1. Textbook
 - 2. Handouts
- B.** Writing
 - 1. Essay based upon the textbook "Fit and Well."

- 2. Written lab assignments
- 3. Written exam
- C. Practical
 - 1. Guided motor performance
 - 2. Skill practice and fine motor tuning

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
 Discussion and problem solving performed in class
 In-class essays
 In-class exploration of Internet sites
 Guest speakers
 Collaborative projects
 Lecture/demonstration

VIII. Methods of Evaluating Objectives

- A. Weekly quizzes
- B. Written essays
- C. Motor Performance evaluations
- D. Final Examination
- E. Self-assessment

IX. Texts and Supporting References

A. Examples of Primary Texts and References

- 1. Fahey, T., Insel, P., Roth, W. Fit and Well. 10th ed. San Francisco, CA: McGraw-Hill Publishing Co., 2011.

B. Examples of Supporting Texts and References

- 1. Foss, Marie, Keteyian, Steven. Physiological Basis for Exercise and Sport, 8th edition. McGraw-Hill Companies, 2008.
- 2. Gallahue, David I. Goodway, Jacqueline D. Ozmun, John C. Understanding Motor Development. 7th edition. McGraw-Hill Companies, 2012.

X. Lab Topics

- A. Anaerobic training
- B. Periodization training
- C. Sport specific training
- D. motor skill development
- E. personal motor assessment
- F. coaching aspects involved in sport performance

1 of 3

Smart Classroom
Gymnasium or multi-purpose room
Physiological measurement tools

V. Expanded Description: Content and Form

- A.** Understand the Tabata interval training theory.
 - 1. High intensity physical training.
 - 2. Tabata interval training theory as an anaerobic technique.
- B.** Perform exercises at higher intensities with longer periods of time.
 - 1. Incorporating longer and faster workouts.
 - 2. Maximum effort and metabolic increases.
- C.** Develop personal cardiovascular fitness strategies.
 - 1. Incorporating Tabata and other interval training theory into a personalized workout program.
 - 2. Utilization of plyometrics, jump ropes, cycling and running in cardio exercise.
- D.** Apply caloric burning exercise techniques.
 - 1. HIIT training methodologies.
 - 2. Contrasting rest intervals and recovery periods during exercise.
- E.** Investigate and contrast human conditions which utilize aerobic and anaerobic energy systems.
 - 1. Outdoor forms of human exercise that create aerobic and anaerobic training.
 - 2. Indoor forms of physical training that create anaerobic and aerobic training.
- F.** Explain the basic components of nutrition as they pertain to elevated work levels.
 - 1. Six essential nutrients found in foods.
 - 2. The roles and controversies regarding vitamins and minerals in the planning of ongoing exercise regime.
 - 3. Eating before, during and after exercise.

VI. Assignments

- A.** Selected readings and written responses in various kinesiology texts and internet resources.
- B.** Written assignments , short and mid length. Quarterly term paper.
- C.** Verbal and written interval training theory and application.

VII. Methods of Instruction

Lecture and visual aids
Discussion of assigned reading
Discussion and problem solving performed in class
In-class exploration of Internet sites

Quiz and examination review performed in class
Guest speakers

VIII. Methods of Evaluating Objectives

- A.** Written and performance exams based upon lectures and in class performance demonstrations.
- B.** Experiential subjective analysis of personal training outcomes.
- C.** Human performance written final examination and term paper.

IX. Texts and Supporting References

A. Examples of Primary Texts and References

- 1.** Fahey,T., Insel, P., Roth, W. Fit and Well. 10th ed. San Francisco, CA: McGraw-Hill Publishing Co., 2011.

B. Examples of Supporting Texts and References

- 1.** Foss, Marie, Keteyian, Steven. Physiological Basis for Exercise and Sport, 8th edition. McGraw-Hill Companies, 2008.
- 2.** V. Gregory Payne., Isaacs, Larry D., Human Motor Development. A Lifespan Approach, 8th ed. San Francisco CA. McGraw-Hill 2008.

1 of 3

IV. Essential College Facilities

50-meter swimming pool and classroom.

V. Expanded Description: Content and Form

A. Employ motor development theory to aquatics.

1. Aquatic motor acquisition ranging from deep water running to water polo ball handling techniques
2. Principles buoyancy and drag in the water as they relate to proper swim stroke efficiencies.

B. Recognize training differences in competitive and non-competitive aquatic motor skills.

1. Developing basic swim stroke capabilities. Modifications of stroke technique to gain motor performance advantages.
2. Understanding buoyancy and drag as it relates all major swim strokes non-competitive and competitive,

C. Engage in aquatic interval motor activities such as water running, sprinting, kicking, pulling, swimming.

1. Performance of specific aquatic motor skills such as paddle pulling and fin swimming.
2. High intensity interval swim training applications.

D. Assess aquatic team sport interaction including water polo, team relays and individual contribution.

1. Engaging and water polo team play.
2. Engaging in a team relay water contest.

E. Assess the role of stress reduction in individual aquatic participation.

1. Effects of water on heart rate, blood pressure, anxiety and stress reduction.
2. Social network theory and stress reduction in group aquatic interaction.

F. Explain the basic components of physiology and nutrition requirements for aquatic exercise.

1. Six essential nutrients and food.
2. Vitamins, minerals and respective controversies within exercise communities
3. Eating before, during and after exercise.
4. Snack foods and fast foods. Excess sugar and water intake.

VI. Assignments

A. Selected readings and responses from aquatic and motor development texts.

B. Written assignments, short and mid length. Term paper including textbook, video performance and self evaluation.

- C. Verbal and written aquatic skills critique and analysis of movement.

VII. Methods of Instruction

Lecture and visual aids
 Discussion of assigned reading
 Discussion and problem solving performed in class
 Quiz and examination review performed in class
 In-class exploration of Internet sites
 Homework and extended projects
 Guest speakers
 Field observation and field trips

VIII. Methods of Evaluating Objectives

- A. Weekly demonstration/evaluation of aquatic motor skill acquisition.
- B. Weekly written quizzes from lecture and texts.
- C. Development of a customized personal aquatic workout program.
- C. Final motor performance examination.
- D. Written final examination based upon texts and weekly lectures.

IX. Texts and Supporting References

A. Examples of Primary Texts and References

1. Fahey, T., Insel, P., Roth, W. Fit and Well. 10th ed. San Francisco CA; McGraw-Hill Publishing Co., 2011.

B. Examples of Supporting Texts and References

1. Gallahue, David I. Goodway, Jacqueline D. Ozmun, John C. Understanding Motor Development. 7th ed. McGraw-Hill Companies. 2012.
2. Langendorfer, Stephen, Bruya, Lawrence Aquatic Readiness; Developing Water Competence in Young Children. Champaign Ill. Human Kinetics Publishing. 2005.
3. Lepore, M., Gayle, G.W., Adapted Aquatic Programs: A Professional Guide Champaign, IL; Human Kinetics Publishing. 2007.
4. Maglischo, Ernest. Swimming the Fastest; The Essential Reference on Technique, Training and Program Design. Human Kinetics Publishing. Champaign, IL. 2003.



Credit- Degree applicable
Effective Quarter: Fall 2008 2013

I. Catalog Information

PHYS 2A

General Introductory Physics

5 Unit(s)

(See general education pages for the requirement this course meets.)

Prerequisite: Mathematics 1A (may be taken concurrently).

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Physics 50.

Four hours lecture, three hours laboratory (84 hours total per quarter).

~~(PHYS 2A + 2B + 2C = CAN PHYS SEQ A)~~

An elementary study of the basic physical laws describing the motion of bodies. Includes the study of oscillations, waves, and sound. Applications to everyday physical phenomena in problem solving using verbal logic, critical thinking, and ~~mathematics~~ **mathematics**. In the laboratory, ~~calculus~~ explore experimental scientific procedures by comparing theoretical models to classic experiments using standard measurement techniques, basic uncertainty analysis, and graphical interpretations of data. ~~graphical interpretations of data.~~

Course Justification: This course meets the general education requirements and requirements for many majors in the life sciences including pre-medical, biology, and some architecture.

[ORIGINAL] SLO (1): Critically examine new, previously un-encountered problems, analyzing and evaluating their constituent parts, to construct and explain a logical solution utilizing, and based upon, the fundamental laws of mechanics

[ORIGINAL] SLO (2): Gain confidence in taking precise and accurate scientific measurements, with their uncertainties, and then with calculations from them, analyze their meaning as relative, in an experimental context, to the verification and support of physics theories.

II. Course Objectives

- A. Analyze physical situations and solve problems in one dimensional kinematics.
- B. Examine vector methods as applicable to physical situations.
- C. Analyze physical situations in two dimensions and solve kinematical problems associated with them.
- D. Examine Newton's laws of motion and solve problems associated with them.
- E. Explore the concepts of work, energy, and energy conservation.
- F. Investigate momentum and momentum conservation.
- G. Discuss rotational kinematics and dynamics

- H. Analyze the equilibrium of rigid bodies.
- I. Study and discuss vibrations and waves.
- J. Explore the properties of sound.
- K. Analyze data in the laboratory using graphical, statistical, and computer based techniques.
- L. Examine the success of mechanics from its European origins to its eventual global influence as a paradigm transcending any particular cultural perspective

III. Essential Student Materials

Laboratory notebook, lab exercise book, writing tools, ruler, scientific calculator

IV. Essential College Facilities

Physics laboratory

V. Expanded Description: Content and Form

- A. Analyze physical situations and solve problems in one dimensional kinematics.
 - 1. Discuss the basic properties of motion.
 - a. Define and discuss displacement.
 - b. Define and discuss velocity.
 - c. Define and discuss acceleration.
 - 2. Explain, derive, and apply the kinematical formulas to physical situations.
- B. Examine vector methods as applicable to physical situations.
 - 1. Define the polar form and component forms of vectors.
 - 2. Examine the addition and subtraction of vectors.
- C. Analyze physical situations in two dimensions and solve kinematical problems associated with them.
 - 1. Apply vectors to problem solving for relative velocity.
 - 2. Apply vectors to problem solving for projectile motion problems.
- D. Examine Newton's laws of motion and solve problems associated with them.
 - 1. Define mass and inertia.
 - 2. Examine and discuss force.
 - 3. Discuss and examine Newton's three laws of motion.
 - 4. Apply Newton's laws to problem solving.
- E. Explore the concepts of work, energy, and energy conservation.
 - 1. Define and discuss work.
 - 2. Define and discuss the forms of energy.
 - 3. Discuss the work energy theorem and apply it to problem solving.
- F. Investigate momentum and momentum conservation.
 - 1. Define and discuss momentum.

2. Define and discuss Newton's second law in momentum form.
 - a. Examine the conservation of momentum.
 - b. Analyze the use of impulse in problem solving.
 3. Apply momentum theory to problems involving collisions.
- G.** Discuss rotational kinematics and dynamics
1. Define the rotational motion parameters of angular velocity and angular acceleration.
 2. Examine and discuss the rotational kinematical formulas.
 3. Assess rotational dynamics.
 - a. Define torque.
 - b. Examine Newton's second law for rotation.
 - c. Apply the conservation of angular momentum to problem solving.
- H.** Analyze the equilibrium of rigid bodies.
1. Define and discuss the center of mass.
 2. Examine the equilibrium of rigid and statics applications in problem solving.
- I.** Study and discuss vibrations and waves.
1. Examine and discuss the defining characteristics of oscillating systems.
 2. Analyze the dynamics of simple harmonic motion.
 3. Analyze and discuss the energy properties of simple harmonic motions.
 4. Examine wave motion and the types of waves.
- J.** Explore the properties of sound.
1. Discuss and define the sources of sound waves.
 2. Define wave refraction.
 3. Examine interference and diffraction.
 4. Discuss the Doppler effect.
- K.** Analyze data in the laboratory using graphical, statistical, and computer based techniques.
1. Take accurate measurements with confidence and understand the uncertainties associated with them.
 2. Analyze data to induce scientific conclusions.
 3. Collaborate with others as a team to produce collective results.
- L.** Examine the success of mechanics from its European origins to its eventual global influence as a paradigm transcending any particular cultural perspective
1. Analyze the failure of the Aristotelian model of the physical world
 2. Appraise the conflict between Galileo's insights and the Italian Inquisition's opposition to them
 3. Assess the failure of the Ptolemaic model and its replacement by the Copernican model

VI. Assignments

- A. Daily and weekly readings from the text
- B. Weekly readings from the laboratory manual
- C. Weekly written assignments from the text and lectures
- D. Written laboratory records during each week of lab

VII. Methods of Instruction

Lecture and visual aids
 Discussion and problem solving performed in class
 Quiz and examination review performed in class
 Laboratory experience which involve students in formal exercises of data collection and analysis
 Laboratory discussion sessions and quizzes that evaluate the proceedings weekly laboratory exercises

VIII. Methods of Evaluating Objectives

- A. ~~Two or more examinations to include questions requiring verbal answers. The required readings and assignments will be evaluated through homework, quizzes, group discussions, projects, and exams.~~
- B. Laboratory quizzes and/or periodic review and critique of laboratory ~~books~~ **notebooks.**
- C. ~~Weekly quizzes based upon homework assignments and lecture~~ **Exams are objective written tests to demonstrate the student's understanding of the course material.**
- D. A laboratory based final examination involving "hands on" practical evaluations ~~where possible and appropriate~~ **demonstrating the understanding of the learning outcomes listed in the student learning outcomes section.**
- E. A two hour comprehensive lecture final that includes the testing of verbal and conceptual understanding as well as mathematical and computational competency with respect to the theoretical basis and problem solving aspects of the ~~class~~ **class. The comprehensive final will test the overall understanding of the learning outcomes listed in the student learning outcomes section.**

IX. Texts and Supporting References

- A. ~~Examples of Primary Texts and References: References~~ **Examples of Primary Texts and References**
 1. *Halliday, Resnick, and Walker, "Fundamentals of Physics", ~~7th~~ **9th** edition, Wiley, ~~2007.~~ **2011.**
 2. Dickson/Newton., "Physics 2A Laboratory Exercises", De Anza Printing Services, ~~2007.~~ **2010.**
- B. ~~Examples of Supporting Texts and References: References~~ **Examples of Supporting Texts and References**
 1. ~~None~~ **James S.Walker, "Physics", 4th edition, Pearson, 2009.**

X. Lab Topics

- A. Measurement and Uncertainties
- B. Density
- C. Projectile motion.

- D.** Friction.
- E.** The Atwood's machine
- F.** Centripetal acceleration
- G.** The slingshot
- H.** Ballistic pendulum.
- I.** The pendulum
- J.** Oscillations and the mass on a spring



Credit- Degree applicable
Effective Quarter: Fall ~~2008~~ 2013

I. Catalog Information

PHYS 2B

General Introductory Physics

5 Unit(s)

Prerequisite: Physics 2A.

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and ~~273~~-273.

Four hours lecture, three hours laboratory (84 hours total per quarter).

~~(PHYS 2A + 2B + 2C = CAN PHYS SEQ A)~~

The laws of mechanics applied to those of electricity and magnetism. An introduction to the physical properties of that fundamental quantity called charge. Includes the study of DC and AC circuits and their elementary applications. Concludes with electromagnetic waves. In the laboratory, learn to construct elementary circuits, measure and analyze their properties with electronic equipment including the oscilloscope, and study the behavior of moving charge in magnetic fields.

Course Justification: This course meets the requirements for many majors in the life sciences including pre-medical, biology, and some architecture.

[ORIGINAL] SLO (1): Critically examine new, previously un-encountered problems, analyzing and evaluating their constituent parts, to construct and explain a logical solution utilizing, and based upon, the fundamental laws of electricity and magnetism.

[ORIGINAL] SLO (2): Gain confidence in taking precise and accurate scientific measurements, with their uncertainties, and then with calculations from them, analyze their meaning as relative, in an experimental context, to the verification and support of physics theories.

II. Course Objectives

- A.** Analyze and apply the relevant principles of mechanics to solve problems involving charge and the electric force.
- B.** Examine electric potential and capacitance to solve problems.
- C.** Define and study DC and AC electric circuit theory and apply it to solve problems.
- D.** Apply the principles of magnetism to problem solving.
- E.** Analyze and examine electromagnetic induction.
- F.** Assess and examine electromagnetic (EM) waves.
- G.** Analyze data in the laboratory using graphical, statistical, and computer based techniques.

III. Essential Student Materials

Laboratory notebook, writing tools, ruler, scientific calculator

IV. Essential College Facilities

Physics Laboratory

V. Expanded Description: Content and Form

- A.** Analyze and apply the relevant principles of mechanics to solve problems involving charge and the electric force.
 - 1. Define electric charge and discuss its properties.
 - 2. Examine Coulomb's force law.
 - 3. Discuss the electric field.
- B.** Examine electric potential and capacitance to solve problems.
 - 1. Define electric potential and voltage.
 - 2. Analyze and discuss equipotential lines.
 - 3. Define capacitance.
- C.** Define and study DC and AC electric circuit theory and apply it to solve problems.
 - 1. Examine the electric battery.
 - 2. Define and examine current.
 - 3. Define Ohm's Law.
 - 4. Study resistors in series and in parallel.
 - 5. Define and examine Kirchhoff's rules.
- D.** Apply the principles of magnetism to problem solving.
 - 1. Define the magnetic field.
 - 2. Explore the sources of magnetism.
 - 3. Explore the force on an electric current in a magnetic field.
 - 4. Define and discuss the force on an electric charge moving in a magnetic field.
- E.** Analyze and examine electromagnetic induction.
 - 1. Define magnetic flux and the concept of induced EMF.
 - 2. Introduce and examine Faraday's law of induction and Lenz's Law.
 - 3. Analyze "motional EMF".
- F.** Assess and examine electromagnetic (EM) waves.
 - 1. Examine the causes and production of EM waves.
 - 2. Discuss and analyze light as an electromagnetic wave and the electromagnetic spectrum.
 - 3. Analyze energy and EM waves.
- G.** Analyze data in the laboratory using graphical, statistical, and computer based techniques.
 - 1. Take accurate measurements with confidence and understand the uncertainties associated with them as pertaining to the use of electrical measuring instruments including multimeters and oscilloscopes.
 - 2. Analyze data to induce scientific conclusions.

3. Collaborate with others as a team to produce collective results.

VI. Assignments

- A. Daily and weekly readings from the text
- B. Weekly readings from the laboratory manual
- C. Weekly written assignments from the text and lectures
- D. Written laboratory records during each week of lab

VII. Methods of Instruction

Lecture and visual aids
 Discussion and problem solving performed in class
 Quiz and examination review performed in class
 Laboratory experience which involve students in formal exercises of data collection and analysis
 Laboratory discussion sessions and quizzes that evaluate the proceedings weekly laboratory exercises

VIII. Methods of Evaluating Objectives

- A. ~~Two or more examinations that includes questions requiring verbal answers~~ **The required readings and assignments will be evaluated through homework, quizzes, group discussions, projects, and exams.**
- B. ~~Weekly Laboratory quizzes based upon homework assignments and/or periodic review and and critique of laboratory notebooks. lecture~~
- C. ~~Laboratory quizzes and/or periodic review and critique~~ **Exams are objective written tests to demonstrate the student's understanding of laboratory books of the course material.**
- D. A laboratory based final examination involving "hands on" practical evaluations ~~where possible and appropriate~~ **demonstrating the understanding of the learning outcomes listed in the student learning outcomes section.**
- E. A two hour comprehensive lecture final that includes the testing of verbal and conceptual understanding as well as mathematical and computational competency with respect to the theoretical basis and problem solving aspects of the ~~class~~ **class. The comprehensive final will test the overall understanding of the learning outcomes listed in the student learning outcomes section.**

IX. Texts and Supporting References

- A. ~~Examples of Primary Texts and References: References~~ **Examples of Primary Texts and References**
 1. *Halliday, Resnick, and Walker, "Fundamentals of Physics", ~~7th~~ **9th** edition, Wiley, ~~2007~~ **2011**.
 2. Newton, D. "Physics 2B Laboratory Exercises". De Anza Printing Services, ~~2007~~ **2010**.
- B. ~~Examples of Supporting Texts and References: References~~ **Examples of Supporting Texts and References**
 1. ~~None~~ **James S. Walker, "PHYSICS", 4th edition, Addison-Wesley, 2009.**

X. Lab Topics

- A. Measuring resistance.

- B.** Construct a capacitor.
- C.** Measure current and voltages.
- D.** Learn how to use the oscilloscope.
- E.** Construct an RC circuit.
- F.** Study the magnetic force on a current.
- G.** Take accurate measurements with confidence and understand the uncertainties associated with them
- H.** Analyze data using graphical, statistical, and computer based techniques
- I.** Analyze data to induce scientific conclusions
- J.** Collaborate with others as a team to produce collective results



Credit- Degree applicable
Effective Quarter: Fall ~~2008~~ 2013

I. Catalog Information

PHYS 2C

General Introductory Physics

5 Unit(s)

Prerequisite: Physics 2B.

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and ~~273~~.
273.

Four hours lecture, three hours laboratory (84 hours total per quarter).

~~(PHYS 2A + 2B + 2C = CAN PHYS SEQ A)~~

Study fluids, optics, thermodynamics, and modern physics. In the laboratory, continue to deepen an understanding of scientific procedure by applying theoretical models to classic experiments.

Course Justification: This course meets the general education requirements and requirements for many majors in the life sciences including pre-medical, biology, and some architecture.

[ORIGINAL] SLO (1): Critically examine new, previously un-encountered problems, analyzing and evaluating their constituent parts, to construct and explain a logical solution utilizing, and based upon, the fundamental laws of optics, thermodynamics, fluids, and modern physics.

[ORIGINAL] SLO (2): Gain confidence in taking precise and accurate scientific measurements, with their uncertainties, and then with calculations from them, analyze their meaning as relative, in an experimental context, to the verification and support of physics theories.

II. Course Objectives

- A. Analyze the properties of fluids.
- B. Investigate the field of optics.
- C. Explore thermal physics.
- D. Assess special relativity.
- E. Appraise quantum theory.
- F. Analyze data in the laboratory using graphical, statistical, and computer based techniques.

III. Essential Student Materials

Laboratory notebook, writing tools, ruler, scientific calculator

IV. Essential College Facilities

Physics Laboratory

V. Expanded Description: Content and Form**A. Analyze the properties of fluids.**

1. Define density.
2. Investigate pressure in fluids.
3. Discuss atmospheric pressure.
4. Examine Pascal's principle.
5. Examine Archimedes' principle.
6. Discuss Bernoulli's equation.

B. Investigate the field of optics.

1. Define and discuss geometric optics.
 - a. Discuss the ray model of light.
 - b. Define the index of refraction.
 - c. Discuss and define reflection and refraction.
 - d. Analyze the lens equation.
2. Define and discuss wave optics.
 - a. Discuss Huygen's principle.
 - b. Define and discuss interference.
 - c. Define and discuss diffraction.
 - d. Analyze polarization.

C. Explore thermal physics.

1. Examine temperature and heat
2. Define the internal energy of a system.
3. Analyze calorimetry problems.
4. Discuss the laws of thermodynamics.

D. Assess special relativity.

1. Examine the postulates of the special theory.
2. Define and discuss simultaneity.
3. Define and discuss time dilation and length contraction.
4. Discuss mass-energy equivalence.

E. Appraise quantum theory.

1. Discuss Planck's quantum hypothesis.
2. Discuss the photon theory of light.
3. Examine the wave nature of matter.
4. Examine the Heisenberg uncertainty relation.
5. Examine the Schrodinger equation and its application to atomic structure.

- F. Analyze data in the laboratory using graphical, statistical, and computer based techniques.
1. Take accurate measurements with confidence and understand the uncertainties associated with them.
 2. Synthesize the analysis of data to induce scientific conclusions.
 3. Collaborate with others as a team to produce collective results.

VI. Assignments

- A. Daily and weekly readings from the text
- B. Weekly readings from the laboratory manual
- C. Weekly written assignments from the text and lectures
- D. Written laboratory records during each week of lab

VII. Methods of Instruction

Lecture and visual aids
 Discussion and problem solving performed in class
 Quiz and examination review performed in class
 Laboratory experience which involve students in formal exercises of data collection and analysis
 Laboratory discussion sessions and quizzes that evaluate the proceedings weekly laboratory exercises

VIII. Methods of Evaluating Objectives

- A. ~~Two or more examinations to include questions requiring verbal answers. The required readings and assignments will be evaluated through homework, quizzes, group discussions, projects, and exams.~~
- B. ~~Weekly Laboratory quizzes based upon homework assignments and/or periodic review and critique of laboratory notebooks. lecture~~
- C. ~~Laboratory quizzes and/or periodic review and critique~~ **Exams are objective written tests to demonstrate the student's understanding of laboratory books of the course material.**
- D. ~~A laboratory based final examination involving "hands on" practical evaluations where possible and appropriate~~ **demonstrating the understanding of the learning outcomes listed in the student learning outcomes section.**
- E. A two hour comprehensive lecture final that includes the testing of verbal and conceptual understanding as well as mathematical and computational competency with respect to the theoretical basis and problem solving aspects of the class. **The comprehensive final will test the overall understanding of the learning outcomes listed in the student learning outcomes section.**

IX. Texts and Supporting References

- A. ~~Examples of Primary Texts and References: References~~ **Examples of Primary Texts and References**
 1. *Halliday, Resnick, and Walker, "Fundamentals of Physics", ~~7th~~ **9th** edition, Wiley, ~~2007.~~ **2011.**
 2. Newton, D., "Physics 2C Laboratory Exercises". De Anza Printing Services, ~~2007.~~ **2010.**
- B. ~~Examples of Supporting Texts and References: References~~ **Examples of Supporting Texts and References**

1. ~~None~~ **James S. Walker, "PHYSICS", 4th edition, Addison-Wesley, 2009.**

X. Lab Topics

- A.** Density, the buoyant force, and Archimede's Principle.
- B.** Geometric Optics
- C.** Wave Optics (single slit diffraction)
- D.** Wave Optics (double slit interference)
- E.** Microwave Optics (single slit)
- F.** Microwave Optics with Bragg diffraction
- G.** Atomic spectra
- H.** The E/M experiment.