

Cedar Crest College
BIO 260, ST: Kinesiology
Spring 2009

Instructor: Mrs. Judith Malitsch

Office: Miller 23; **Office Hours:** M 4-5, W 4-5, R 12-2, 4-5 and by appointment.

Telephone: 610-606-4666, Ext. 3605; Administrative Assistant, Mrs. Molchany: Ext. 3378

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Meeting Times/Places/Important Dates:

W 1-4, SC 106; SC 102, Dance Studio as announced

Spring Break: 3/9 – 3/13

Easter Break: 4/10-4/13

Course Withdrawal Deadline: 4/14 @ 4 PM

Classes End: 5/5 on a Friday Schedule

Final Exams: TBA 5/6-5/13

From The Provost's Office: “Your obligations for this course include attendance at the final exam. Do not make travel arrangements until the final exam schedule is published; if you must make plans early, you should schedule your travel after the last final exam day.”

BIO 260: ST: Kinesiology

3 credits, Integrated lecture and lab

This course analyzes human movement based on anatomical and mechanical principles relevant to the art of dance and dance technique, dance health, human movement, exercise and athletic performance. Three systems of the body will be studied in order to analyze the interrelationships of these systems in creating human motion as well as a holistic approach to a healthy lifestyle. The systems are (1) Skeletal, (2) Muscular and (3) Nervous with an application of nutrition, cardio-respiratory health, bone health, and dance injury management and prevention. In addition to dance, this course also provides many applications in the fields of physical therapy, occupational therapy, exercise physiology, clinical rehabilitation and sports medicine.
No prerequisites

Required Text, Online Information and Materials:

Clippinger, Karen S. (2007) *Dance Anatomy & Kinesiology*. Human Kinetics, IL.

Register for the free website, www.WinkingSkull.com.

Notebook and folder

Optional: Anatomy Flash Cards

Course Objectives: Students will examine the scientific principles of anatomy, physiology and biomechanics as they apply to dance technique, movement and everyday activities in general with an appreciation for understanding and maintaining healthy tissues. Supporting activities will develop the student's understanding of basic anatomical terms and principles, musculoskeletal terminology, movement analysis, alignment assessment, and kinesiological principles.

Learning Outcomes and Assessment:

- A. Students will demonstrate an understanding of basic anatomical terms, tissues, body orientation, alignment, and kinesiological principles.
Assessment: laboratory activities, postural analysis, application assignments and exams
- B. Students will demonstrate knowledge of the human skeletal system by labeling bones and their surface anatomy.
Assessment: laboratory activities, application assignments and exams.
- C. Students will be able to identify and label the major muscles and muscle groups, their origins, insertions, functions, and also palpate these muscles.
Assessment: laboratory activities, application assignments, oral presentation project and exams
- D. Students will describe and demonstrate the musculoskeletal anatomy for major joints of the body.
Assessment: laboratory activities, application assignments, oral presentation project and exams
- E. Students will be able to analyze the biomechanics of joint movements, dance technique and injury prevention.
Assessment: laboratory activities, application assignments, demonstrations, oral presentation project and exams
- F. Students will apply anatomical/kinesiological terminology to dance movements.
Assessment: laboratory activities, studio demonstrations, field observations and exams
- G. Students will evaluate their postural alignment, overall health and nutritional status.
Assessment: laboratory activities, analysis assignment, self-assessment
- H. Students will evaluate a dance class, workshop, or athletic event on the basis of observations and kinesiological principles.
Assessment: Written report
- I. Students will develop critical thinking, reasoning, research and communication skills.
Assessment: research an appropriate journal article, summarize and apply principles in a written report, and an oral presentation project
- J. Students will monitor and make changes in their own level of fitness and wellness by introspective reflective and making responsible decisions to promote musculoskeletal health and overall well-being
Assessment: Written report incorporating a nutritional analysis

Policies On:

Attendance: **Expected;** if an *unavoidable* absence occurs on the test days, you must notify me prior to the start of class for **any** make-up consideration. Additionally, documentation from the Dean of Student's Office is required. The test must be completed within one week. Non-compliance of the above will result in a zero. If you are late for a test you will forfeit that time for completing the test. *Test/Assignment Etiquette* will be enforced which means that unnecessary writing, diagrams or comments are not permitted and subject to penalty. Extended illnesses must also be reported to the Dean of Student's Office. For absences on non-test days, ask a classmate to collect any handouts for you and review the notes with you. Since this course meets once a week, it is advisable not to be absent. **You** are responsible for any missed information, assignments and due dates. Excessive tardiness may also be penalized at my discretion. It is disruptive and violates classroom protocol.

FINAL EXAM TIMES CANNOT BE REARRANGED (Departmental Policy) UNLESS 3 OR MORE EXAMS OCCUR WITHIN A 24-HOUR PERIOD. ANY EXCEPTION MUST BE PETITIONED AND REVIEWED BY THE DEPARTMENT OF BIOLOGICAL SCIENCES.

Preparation for Class:

Preview the text material before class. Use the power point slides to follow the lecture along with the many diagrams. Suggested items to have for maintaining organization: (1) notebook (2) folder for handouts (3) highlighter (4) colored pens/pencils.

You may be responsible for material not presented in its entirety in class. You will be informed of this information. **You are also responsible for the following information:**

- ✓ All information covered in lecture
- ✓ Information brought out in discussions
- ✓ Information in the chapters
- ✓ Information in assigned readings and handouts
- ✓ Content of audiovisuals used in class
- ✓ Anything missed as a result of tardiness and absences.

Assignments:

All assignments must be word-processed (unless indicated otherwise), 12 font-Times New Roman, double spaced, proper margins, solid black ink (a printer low on ink is NOT an acceptable excuse), collated/**stapled** in order and on time. If the assignment is late or prerequisites are not followed, penalties will be assessed or the assignment may not be graded = zero points for that assignment. Assignments handed in after class are considered late and will be assessed a 10% penalty per day including weekends. Emailed assignments will not be accepted.

Grading: A point system will be used to calculate your final grade by dividing the earned points by the total possible points for the assignment or test. The following evaluation method and assigned points will be used. You can also record your earned points here:

| TEST/ ASSIGNMENT | POSSIBLE POINTS | EARNED POINTS |
|--|-----------------------|---------------|
| 3 Tests (written and practical format) | 600 | |
| Comprehensive Final Exam (written and possibly practical format) | 200 | |
| | | |
| Study Questions/Applications (5 per chapter) | 800 (20 pts. x 5 x 8) | |
| Postural/ Nutritional/Health Analysis | 100 | |
| Journal Article and Written Report | 100 | |
| Oral Presentation Project | 100 | |
| Dance/Athletic Event Attendance, Analysis and Written Report | 100 | |
| TOTAL POSSIBLE POINTS | 2000 | |

Grading Scale: A-F (with +, -)*

| | | | |
|----|---------------------------------|----|----------------------------|
| A | 93, 94, 95, 96, 97, 98, 99, 100 | C+ | 77, 78, 79 |
| A- | 90, 91, 92 | C | 73, 74, 75, 76 |
| B+ | 87, 88, 89 | C- | 70, 71, 72 |
| B | 83, 84, 85, 86 | D+ | 67, 68, 69 |
| B- | 80, 81, 82 | D | 60, 61, 62, 63, 64, 65, 66 |
| | | F | Below 60 |

Attendance and participation are always considered, especially in borderline cases

Explanation of Tests and Assignments:

- **Tests** will cover material as presented in the chapters and class notes.
- **The comprehensive final exam** will largely include remaining chapters/notes with important ideas or themes that were highlighted throughout the semester. I will announce those “comprehensive ideas” before the final exam.
- You may select any **5 study questions/applications** to answer from the end of the chapters.
- The **postural/nutritional/health analysis** will involve an in-class activity followed by visiting www.MyPyramid.gov to assess your nutritional plan. After performing the in-class analysis, visit the website to compare your current nutritional status with the recommended plan from the website. Finish this assignment with an overall picture of yourself, physically, emotionally and nutritionally.
- The **journal article assignment** involves selecting an article related to topics covered in the course or current research (e.g. in dance) from a magazine, journal or a chapter from another book related to this course material. Write a 1-page summary of the article/chapter and a 1-page discussion of how the information can be applied specifically to you as a dancer, athlete or well-informed individual. Include full bibliographic citations.

- The **oral presentation project** is a qualitative analysis of movements in dance technique or other techniques. You will research principles involved in the movements and present ways to be more efficient in performance and overall movement. Also include information on injury prevention. This project can be fulfilled through a power point presentation or a demonstration in the dance studio and will take place during the last class. You may work in teams of 2; both members of the team will earn the same grade for the presentation.
- For **the dance/athletic event attendance** and analysis you will attend a complete performance or event, document the date and time of the event, observe and analyze musculoskeletal movements and write a 2-page report of your observations. If you would like to observe a workshop or class, please contact the professor for permission to do so.

Cedar Crest: The professors within the Department of Biological Sciences support the campus wide policies as described in the *Student Handbook*.

I fully support the **Cedar Crest College Honor Code, Academic Standards of Integrity and Classroom Protocol Code** as stated in the *Student Handbook*. If necessary, code violations should be brought to my attention. Cheating will result in a zero for the test/assignment. Violations may also result in removal from class, a forfeit of all bonus points and formally addressed by the appropriate individuals: Dr. Amy Faivre (Acting chair), Dr. Carol Pulham (Provost), Dr. Denise O’Neill (Acting Dean of Students), Christine Nowik (Director of the Academic Services), and the Honor & Judicial Board. There will be zero tolerance for disruptive, disrespectful behavior. Security will be called in the event such behavior occurs.

I fully support the College’s policy on plagiarism as described in the *Student Handbook*. Based on the severity of the offense, students may be required to redo an assignment or receive a zero for the assignment. Cases will be reported to the Provost as necessary

Students with **documented** disabilities who may need academic accommodations should discuss these needs with their professors during the first 2 weeks of class. Students who wish to request accommodations should contact the advising center.

Need to Know:

1. All students must have CCC email for course communication and it is your responsibility to check it regularly.
2. Promptness, respect and courtesy are expected in all aspects of the course.
3. Food and beverages (including anything bottled) are not permitted in the laboratory.
4. Due to the hazards in lab and abiding by the classroom protocol code establishing a learning environment for all registered students, children are not permitted to be in the lab.
5. Please switch all cell phones to vibrate during class unless there is an impending situation.

6. Guests, food, drinks, wrappers, cell phones, palm pilots, blackberries or any other electronic devices are not allowed during tests. It is highly recommended that students DO NOT sit close to each other during tests.
7. To insure greater security and safety for students at night who study in the Science Center:
 - A. Always carry your college ID.
 - B. Make an effort to come with a study partner.
 - C. Notify Campus Security (dial 'O' on any campus phone) for any help or assistance.
 - D. Use the "escort service" through Campus Security if needed.
8. Success In Class:
 - Read, Read, Read the **TEXT** noting figures and tables.
 - Take notes in class.
 - Study your notes; let your notes be your guide to studying.
 - Complete all assignments.
 - Remember these 3 important C's: *Communication, Courtesy & Curiosity (ask questions)*
 - With effort in this class, everyone should be successful! ☺

Course Outline and Dates:

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|--|---------------|
| Tissues, Terminology, Body Orientation, Analysis of Human Movement and The Skeletal System | Chapters 1, 8 |
| Skeletal Muscle Structure, Function, Origins, Attachments | Chapter 2 |
| The Vertebral Column, Spinal Muscles, Abdominal Muscles and Stability | Chapter 3 |
| The Shoulder Girdle and Upper Extremity Anatomy and Movements | Chapter 7 |
| The Pelvic Girdle and Hip Joint | Chapter 4 |
| The Knee and Patellofemoral Joints | Chapter 5 |
| The Ankle and Foot | Chapter 6 |
| What have we learned? | Chapter 8 |

Lectures will be supplemented with figures from other texts, clinical (application) information, common injuries, nutrition, and cardiovascular and respiratory connections.

Handouts may also be used to enhance class material. I will use power point presentations in class; however, they may not always be available for you before class, so, plan on taking notes.

| Test Dates | Assignment/Project Due Dates: |
|--|--|
| February 18 March 25 April 15 Final TBA | Study Questions: January 28 February 11 February 25 March 18 April 1 April 15 April 29 Final Exam Day Journal Article: By April 1 Oral Presentation: April 29 In Class Event Report: April 29 |

