

UNIVERSITY OF CALGARY FACULTY OF ARTS

SCHOOL OF CREATIVE AND PERFORMING ARTS DNCE 363 Dance Science and Kinesiology Winter 2017

Instructor	Sarah Kenny MSc, PhD Candidate				
Office	Sport Injury Prevention Research Centre: KNB 3300A				
Email	kennys@ucalgary.ca				
	By appointment				
Office Hours					
Day(s),time(s) and	Tuesdays and Thursdays, 9:00 – 10:50am				
location of class	CHC 002				
Learning resources:	Required (available for purchase at Campus Bookstore)				
required readings,	1. Simmel, L. (2014). Dance medicine in practice. London: Routledge.				
textbooks and	2. Clippinger, K. (2015). Dance anatomy and kinesiology (2 nd ed.). Champaign: Human				
materials	Kinetics.				
	Recommended				
	1. Calais-Germain, B. (1993). Anatomy of movement. Seattle: Eastland Press.				
	2. Farhi, D. (1996). The breathing book. New York: Henry Holt.				
	3. Fitt, S. S. (1996). Dance kinesiology (2nd ed.). New York: Shirmer Books.				
	4. Grossman, G. (2015). Dance science: Anatomy, movement analysis, conditioning. Hightstown: Princeton Book Company.				
	5. Haas, J. (2010). Dance anatomy. Champaign: Human Kinetics.				
	6. Howse, J., & McCormack, M. (2009). Anatomy, dance technique and injury				
	prevention (4th ed.). London: Bloomsbury Publishing PLC.				
	7. Koutedakis, Y., & Sharp, N. C. C. (1999). The fit and healthy dancer. Chichester:				
	Wiley.				
	8. Krasnow, D., & Wilmerding, M. V. (2015). Motor learning and control for dancers. Champaign: Human Kinetics.				
	9. Laws, K., & Sugano, A., (2008). Physics and the art of dance: Understanding movement (2nd ed.). New York: Oxford University Press, Inc.				
	10. Olsen, A. (1998). Body stories: A guide to experiential anatomy. New York: Station Hill Openings.				
	11. Quin, E., Rafferty, S., & Tomlinson, C. (2015). Safe dance practice. Champaign: Human Kinetics.				
	12. Solomon, R., Solomon, J., & Minton, S. C. (2005). Preventing dance injuries (2nd ed.). Champaign: Human Kinetics.				
	13. Taylor, J., & Estanol, E. (2015). Dance psychology for artistic and performance excellence (2nd ed). Champaign: Human Kinetics.				
	14. Thomas, J., Nelson, J., Silverman, S. (2015). Research methods in physical activity				
	(7th ed). Champaign: Human Kinetics.				
	15. Wilmerding, M. V., & Krasnow, D. (2017). Dancer wellness. Champaign: Human Kinetics.				
	Dance Science Journals				
	Journal of Dance Medicine and Science				
	Medical Problems of Performing Artists IADMS Resource Papers, Bulletins for Teachers				
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Prerequisites	Kinesiology 259 or Dance 309, and two of Dance 205, 207, 209, 211, 221, or			
	equivalent, or consent of the Division Chair, Dance.			
Supplementary fees	None.			
Course description	Kinesiological analysis of dance, and the fundamentals of Dance Science.			
Course overview	The primary focus of this course will be on the scientific study of dance and dancers, and the practical application of scientific principles to dance practice. Students will learn to analyze dance movement from a kinesiological perspective. The research process (design and methodology) will be introduced. Overall emphasis will include safe dance practice in order to optimize dance training, enhance performance potential and reduce risk of injury. Students will be expected to apply this understanding to the assessment of their own practice and to the design of a dance science research project.			
	This course will develop knowledge, comprehension, application and evaluation of: dance movement analysis (i.e. structure, function, role of gravity) biomechanics (i.e. terminology, musculoskeletal system, postural assessment) physiology (i.e. neuromuscular system, respiratory system, energy system) nutrition (i.e. energy sources, hydration, somatotypes, female athlete triad) psychology (i.e. motivation, confidence, psychological skills) somatics (i.e. kinaesthetic awareness, movement efficiency, breath patterns) safe dance practice (i.e. risk identification, injury prevention, injury management) scientific research strategies (i.e. design, methodology, quantitative, qualitative)			
	All classes will involve lecture and studio activities. In each class, we will be moving, talking, and taking notes. Observation and hands on work will facilitate the exploration of ideas. Please take care of your own comfort and dress appropriately.			
Course learning outcomes	 By the completion of this course, successful students will be able to: explain the principles of kinesiology (i.e. anatomical and biomechanical organization) that underline the performance of human movement conduct a comprehensive movement analysis of a dance phrase reflect on the application of kinesiology to their own dance practice integrate issues of health and safety into their own dance practice describe physiological, biomechanical, and psychological processes relevant to dance compare different research designs and scientific methodologies present a dance science research proposal (literature review, objective, research plan, significance) defend the importance of scientific research and its application to a dancer's training, performance enhancement, health and wellness, and injury prevention 			
Course schedule	See below.			
Assessment	Assignment 1: Participation			
components	Value: 10% of final grade			
	Description: A participation grade will be awarded for arriving to class on time, being prepared to work, being fully engaged in class (e.g. involvement in experiential work, note taking, engaging in discussions). The completion of various weekly tasks (e.g. food diary, research topic, contributing to forums on D2L) is also included. Marks will be deducted if you miss more than one week of class (i.e. 2 classes) – see Assessment Expectations below.			
	Assignment 2: Movement Analysis Exam			
	Value: 20% of final grade			

Due Date: Tuesday January 31, 2017 at 9:00am

Type: Written exam

Description: Short-answer questions will assess your knowledge of material covered in class and weekly readings from weeks 1-3. You will conduct a series of movement analyses (e.g. movement planes, major joints, primary muscles) of simple dance movements.

Assignment 3: Self Profile Essay

Value: 30% of final grade

Due Date: Tuesday March 21, 2017 at 9:00am

Type: Written essay

Description: The Self Profile Essay will address a personal observation(s) made on at least one of the following topics: nutrition, psychology, biomechanics, somatics, or physiology. Rather than try to change anything, you will simply observe and reflect upon the impact that your observation(s) has had on your current dance training. To conclude, recommendations for continued personal improvement in your dance practice, specific to your observation, will be made. Relevant literature will support your essay and a bibliography will be included. Referencing will follow the format of the Journal of Dance Medicine and Science (JDMS).

Assessment Criteria

By the completion of this assessment, successful students will be able to:

- describe and analyze a personal observation(s) using appropriate scientific terminology
- discuss the impact of this personal observation(s) on your current dance training
- formulate recommendations for an improved, injury free dance practice in relation to personal observation(s)
- support all discussion points with relevant, current dance science literature
- write a clear and coherent 5-page essay with an introduction, body, and conclusion that is free from grammatical and spelling errors

Assignment 4: Research Proposal

Value: 40% of final grade

Due Date: Thursday April 6, 2017 at 9:00am

Type: Individual Written Paper (20%); Group Oral Presentation (20%)

Description: You will be required to work together in partners to propose a specific dance science research project. The proposal will be referred to in future tense (i.e. will, will be). With reference to material covered in class, current dance science literature and an understanding of scientific methodology, you will discuss why you think this particular research project is necessary (background, objective) and how it could be implemented (research plan – participants, procedures, analysis). The conclusion (significance) will explain the impact that your project will have on future dance practice and dance science research as a whole.

Your research proposal will be assessed in two ways:

- 1. Individually, each student will write and submit a 5-page written paper of the proposal.
- 2. Together, the group will deliver an oral presentation of the research proposal.

Assessment Criteria

By the completion of this assessment, successful students will be able to:

- describe the relevance of the proposed dance science research project to dance practice
- design an appropriate research plan to execute the proposed project
- explain how the proposed project will impact dance science research on the whole
- follow standard scientific framework

Specific to individual written paper

 write a clear and coherent 5-page research proposal that is free from grammatical and spelling errors

Specific to group oral presentation

- present effectively (i.e. coherent PowerPoint slides (or equivalent), clear speaking, eye contact, easeful transitions between group members)
- answer questions and expand ideas as required

Assessment expectations

Guidelines for Submitting Assignments

Movement Analysis Exam: The exam will take place during class time (9:00 – 10:50am).

Self Profile Essay: A hard copy of your essay will be handed in at the beginning of class (9:00am).

Research Proposal: A hard copy of the written paper, as well as all PowerPoint (or equivalent) slides for the oral presentation will be handed in at the beginning of class (9:00am). If anyone is absent on the day of presentation, your group will be expected to continue without you.

Criteria That Must Be Met To Pass

See Assessment Criteria for each Assignment above. In order to achieve a passing grade in the course, the minimum requirement is D.

Expectations for Writing

Writing skills are important to academic study across all disciplines. Consequently, instructors may use their assessment of writing quality as a factor in the evaluation of student work. Please refer to the Undergraduate Calendar E.2 Writing Across the Curriculum policy for details.

Guidelines for Formatting Assignments

Self Profile Essay: You will put a title, your name and UCID on a cover sheet. The body of the essay will be at maximum 5 pages, typed, single sided, double spaced, 12 point font, with default margins. A separate reference page will complete the essay with a minimum of 4 references that follow the formatting structure of the Journal of Dance Medicine and Science (on D2L).

Research Proposal:

Individual Written Paper – You will put a title, your name and UCID on a cover sheet. The body of the written paper will follow standard scientific framework (i.e. background, objective, research plan – participants, procedures, analysis, and significance). It will be at maximum 5 pages, typed, single sided, double spaced, 12 point font, with default margins. A separate reference page will complete the essay

with a minimum of 4 references that follow the formatting structure of the Journal of Dance Medicine and Science (on D2L).

Group Oral Presentation – Your 10-minute oral presentation of a potential dance science research project will follow standard scientific framework (i.e. background, objective, research plan – participants, procedures, analysis, and significance).

Late Assignments

The Self Profile Essay will not be accepted beyond the day that it is due: Tuesday March 21, 2017. If it is submitted after 9:00am, then your grade will be affected by as much as 10%.

Expectations for Attendance and Participation

Please refer to the Undergraduate Calendar E.3 Attendance for details.

FOR GRADED DANCE STUDIO COURSES

- A significant part of your grade is based on participation. Participation means not only showing up for class, but also attending to the material at hand with effort and engagement.
- With regard to participation, classes are considered equivalent to assignments.
 Thus, more than 2 absences per term will have an adverse effect on your final grade.
- If you miss more than one week of classes (i.e. 2 classes), your final grade will begin to drop by as much as 10% per missed class.
- If you miss more than two weeks of classes (i.e. 4 classes), you have the potential to fail the course.
- If you show up late for or leave early from class, this will be counted as half an absence.
- If for some reason you are feeling unwell during class time, a substitute form of participation may be arranged; however, you may not obtain this privilege more than once and you will receive half an absence.
- For studio courses, if you opt out of full participation and choose to sit for a
 portion of the class, this will be counted as non-participation and will be marked as
 half an absence.
- Students are responsible for any and all material missed during an absence.
- If you sustain a significant injury during the term that will impact your participation for longer than a week's worth of classes (i.e. 2 classes) and if this injury is verified by a medical practitioner's note, your case will be submitted to the Dance Division Committee to address your situation.

Grading scale

For the course as a whole, letter grades should be understood as follows, as outlined in the section F.2 Undergraduate Grading System of the Undergraduate Calendar for 2016-2017:

Grade	Percent	GPA	Description
A+	96-100	4.00	Outstanding.
Α	91-95	4.00	Excellent-superior performance, showing comprehensive
			understanding of subject matter.
A-	86-90	3.70	
B+	81-85	3.30	
В	76-80	3.00	Good - clearly above average performance with knowledge
			of subject matter generally complete.
B-	71-75	2.70	

	C+	66-70	2.30	
	С	61-65	2.00	Satisfactory - basic understanding of the subject matter.
	C-	56-60	1.70	Receipt of a grade point average of 1.70 may not be sufficient for promotion or graduation. (See individual undergraduate faculty regulations.)
	D+	51-55	1.30	, , , ,
	D	46-50	1.00	Minimal pass - marginal performance; generally insufficient preparation for subsequent courses in the same subject.
	F	45 and	0	Fail - unsatisfactory performance or failure to meet course
		below		requirements.
	The following numerical equivalencies will apply:			
	A+	96 - 100	C+	66 - 70
	Α	91 - 95	С	61 - 65
	A-	86 - 90	C-	56 - 60
	B+	81 - 85	D+	51 - 55
	В	76 - 80	D	46 - 50
	B-	71 - 75	F	below 46
Academic accommodation	, , , , , , , , , , , , , , , , , , , ,			Services (SAS); SAS will process the request and issue
	letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit ucalgary.ca/access/ . Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at ucalgary.ca/policies/files/policies/student-accommodation-policy_0.pdf .			
Academic integrity,				
plagiarism	The University of Calgary is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are referred to the section on plagiarism in the University Calendar (ucalgary.ca/pubs/calendar/current/k-2.html) and are reminded that plagiarism—Using any source whatsoever without clearly documenting it—is an extremely serious academic offence. Consequences include failure on the assignment, failure in the course and possibly suspension or expulsion from the university. You must document not only direct quotations but also paraphrases and ideas where they appear in your text. A reference list at the end is insufficient by itself. Readers must be able to tell exactly where your words and ideas end and other people's words and ideas begin. This includes assignments submitted in non-traditional formats such as Web pages or visual media, and material taken from such sources. Please consult your instructor or the Student Success Centre (TFDL 3rd Floor) if you have any questions regarding how to document sources.			
Student misconduct	ucalgar	/.ca/pubs/ca	alendar/o	current/k.html
FOIP	ucalgar	v.ca/secreta	riat/priva	acy
Emergency evacuation	ASSEME For mor	BLY POINT For e information	OR CRAIC on, see th	ncies have been identified across campus. THE PRIMARY GIE HALL IS THE PROFESSIONAL FACULTIES FOOD COURT. ne University of Calgary's Emergency Management encyplan/assemblypoints
Internet and electronic	elearn.u	ıcalgary.ca/	category	

communication device	The in-class use of computers may be approved by your Instructor. Cell phones and other electronic communication devices should be silenced or turned off upon entering the classroom. If you violate the Instructor's policy regarding the use of electronic communication devices in the classroom, you may be asked to leave the classroom; repeated abuse may result in a charge of misconduct. No audio or video recording of any kind is allowed in class without explicit permission of the Instructor.			
Safewalk	220-5333 anytime. <u>ucalgary.ca/security/safewalk</u>			
Students' union and ombudsperson contacts	Student Union: su.ucalgary.ca/about/who-we-are/elected-officials/ Faculty of Arts reps: arts1@su.ucalgary.ca ; arts4@su.ucalgary.ca ; arts4@su.ucalgary.ca/pubs/calendar/grad/current/graduate-students-association-gsa-grad.html Student Ombudsman: ucalgary.ca/ombuds/contact			
Midterm and final examination scheduling	Final examinations may be scheduled at any time during the examination period (12-22 December for Fall 2016 term; 15-26 April for Winter 2017 term); students should therefore avoid making prior travel, employment, or other commitments for this period. If a student is unable to write an exam through no fault of his or her own for medical or other valid reasons, documentation must be provided and an opportunity to write the missed exam may be given. Students are encouraged to review all examination policies and procedures: ucalgary.ca/registrar/exams/deferred_final			
Deferrals of exams/term work	It is possible to request a deferral of term work or final examinations for reasons of illness, accident, family or domestic affliction, or religious obligations. Please check with your advisor if any of these issues make it impossible for you to sit an exam or finish term work by stated deadlines. ucalgary.ca/pubs/calendar/current/g-6.html ucalgary.ca/pubs/calendar/current/g-7.html			
SCPA Claim Your Seat Program: Student Guidelines	 The Claim Your Seat (CYS) program, funded by the Students' Union Quality Money, allows all University of Calgary students to attend on-campus School of Creative and Performing Arts (Dance, Drama and Music) events free of charge. Depending on the performance, there is a limited number of seats available for CYS. There is not a guarantee that tickets will be available for all CYS patrons for every performance, based on audience size, demand, etc. CYS tickets are a privilege. If a student receives a ticket to attend a performance, it is expected that they will respect the value of the admission and attend the performance. Process for students: On the date of the performance, from 45 minutes prior to 15 minutes prior to the performance start time, they arrive to the CYS table next to the Box Office and show their Unicard. If students arrive after 15 minutes prior to the performance start time, they can go to the Box Office and purchase a ticket at the student rate. Students should not go to the Box Office unless they are purchasing a ticket. If students have a course requirement to attend a performance for a specific date, access to the tickets will be communicated by the instructor to University Theatre Services prior to the event. The best guarantee for a free ticket is to arrive early, up to 45 minutes prior to the performance start time. Respect for the Front of House and theatre staff, performers and fellow patrons is an absolute requirement. Failure to comply with this will lead to being asked to leave the venue and could result in the revoking of CYS privileges. 			
Academic standing	ucalgary.ca/pubs/calendar/current/f.html			
Campus security	220-5333. Help phones: located throughout campus, parking lots, and elevators. They connect directly to Campus Security; in case of emergency, press the red button.			

Copyright	It is the responsibility of students and professors to ensure that materials they post or distribute to others comply with the Copyright Act and the University's Fair Dealing Guidance for Students. Further copyright information for students is available on the Copyright Office web page (library.ucalgary.ca/copyright).
Faculty of Arts program advising and student information resources	For academic advising, visit the Arts Students' Centre (ASC) for answers about course registration, graduation checks, and the 'big picture' on programs and majors. Drop in at SS102, email at ascarts@ucalgary.ca or call at 403-220-3580. You can also visit the Faculty of Arts website at arts.ucalgary.ca/undergraduate which has detailed information on common academic concerns. For academic success support, such as writing support, peer support, success seminars, and learning support, visit the Student Success Centre on the third floor of the Taylor Family Digital Library (TFDL), email them at success@ucalgary.ca or visit their website at ucalgary.ca/ssc/ for more information or to book an appointment. For enrolment assistance, including registration (add/drop/swap) changes, paying fees, and navigating your Student Centre, contact Enrolment Services at 403-210-ROCK [7625], by email at futurestudents@ucalgary.ca or visit them at the MacKimmie Block 117.
Course outlines for transfer credit	It is possible that you will be asked for copies of this outline for credit transfers to other institutions or for proof of work done. It is the student's responsibility to keep these outlines and provide them to employers or other universities when requested. Please ensure that outlines of all the courses you take are kept in a safe place for your future reference. Departments/Programs do not guarantee that they will provide copies.
Letter of permission	If you wish to study at another institution while registered at the U of C, you must have a letter of permission. You can submit your request through your Student Centre at MyUofC. Students must have the Letter of Permission before they take the course at another school. Failure to prepare may result in no credit awarded and could result in suspension from the faculty.
Undergraduate associations	DUS: Drama Undergraduate Society, CHC 005 uofcdus@gmail.com MUS: Music Undergraduate Society, CHF 219 undmusic@ucalgary.ca

DNCE 363: Dance Science and Kinesiology Course Schedule

Week	Dates	Tuesday. 900 – 1050	Thursday. 900 – 1050
		Introduction: Why is science important to	Movement Analysis: muscular function,
1	Jan 10 + 12	dance?	role of gravity, postural assessment
		Guest Alyssa Perron	Reading Clippinger Ch 8
2	Jan 17 + 19	Lower Limbs: foot, ankle, knee	Body Center: hip, spine Reading Simmel Ch 2-4, Clippinger Ch 3-4
		Reading Simmel Ch 5-6, Clippinger Ch 5-6 Upper Limbs: shoulder, arm	Review
3	Jan 24 + 26	Reading Simmel Ch 7, Clippinger Ch 7	Neview
		neading of the city of pringer on the	Nutrition: energy sources, somatotypes
4	Jan 31 + Feb 2	Due: Movement Analysis Exam	Reading Simmel Ch 9, IADMS Fueling the
		,	Dancer paper
		Nutrition: specific needs of the dancer	Motor Learning and Control
5	Feb 7 + 9	Guest Kim Wagner Jones, RD	Field Trip to Sport Medicine Centre
		Hand-in 3-day Food Diary	Guest Dr. Elaine Little
		Applied Psychology: motivation, self-	Applied Psychology: self-care, stress
6	Feb 14 + 16	confidence, psychological skills	management
	1 CN 14 + 10	Reading Simmel Ch 8, IADMS Teacher	Guest Dr. Angela Grace
		Bulletin (Miulli)	
	Feb 21 + 23	READIN	IG WEEK
		Applied Biomechanics: physics of dance	Applied Biomechanics
		Reading Simmel Ch 1, Clippinger Ch 1-2,	Field trip to Human Performance Lab
7	Feb 28 + Mar 2	IADMS Teacher Bulletin (Wilson)	Guest Jordyn Vienneau
		, ,	,
		Somatic Practice: nervous system,	Applied Physiology: energy systems,
8	Mar 7 + 9	kinaesthetic awareness, breath patterns	neuromuscular system, fatigue
	IVIGITY 1 3	Reading IADMS Somatic Studies and Dance	Reading Simmel Ch 12; p19-23, IADMS
		paper	Teacher Bulletin (Angioi, Wyon)
		Research Methods: literature search	No class: Mainstage opens
9	Mar 14 + 16	strategies, structure of a scientific study	
		Guest Hailey McLeod	
		Research Methods: study design,	Research Methods: critical appraisal,
4.5		qualitative and quantitative	study validity
10	Mar 21 + 23	Due Self Profile Essay	Hand-in Research topic for proposal
		,	, ,
		Safe dance practice: injury risk, prevention,	Group Tutorials; Guided study time
		management	
11	Mar 28 + 30	Reading Simmel Ch 11, IADMS First Aid for	
		Dancers paper, IADMS Technique Class	
		Participation paper	
12	Apr 4 + 6	Group Tutorials; Guided study time	Due Group Presentations
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13	Apr 11	Reflection	