

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE
Department of Kinesiology
**KIN 451 Adapted and Therapeutic Aquatic Exercise: Assessment, Evaluation and
Program Design**

Instructor: Mai Narasaki, M.S.
Class Day/Time: Mondays & Wednesdays/4:30-5:20pm
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Course Materials

The Aquatic Therapy Answer Book by Aquatic Resources Network

Course Description

This course is designed to introduce intermediate/advanced knowledge in adapted aquatic therapeutic exercise. Assessment and evaluation processes to be learned include observations, screenings and various measurement instruments for the purpose of designing exercise protocols for individuals and groups with special needs.

Course Objectives

Upon the completion of this course the student will be able to:

1. Define terms used in adapted aquatic therapeutic exercise (SLO 1)
2. Describe the benefits and goals of adapted aquatic therapeutic exercise (SLO 1)
3. Identify precautions and contraindications as they pertain to specific conditions and disabilities (SLO 6, 8)
4. Demonstrate the ability to select appropriate assessment instruments used in adapted aquatic therapeutic exercise (SLO 6, 8, 9)
5. Create assessment plans and exercise protocols for individuals and groups with special needs (SLO 3, 8, 9)

Outline of Course Content

Week	Mode	Topic
1	Lecture	Overview of the essential components of an adapted aquatic exercise program (warm-up, flexibility, muscular strength, muscular endurance, cardiovascular conditioning, proprioception, relaxation/cool-down)
2	Lab	Overview of aquatic equipment (pool session)
3	Lecture	Assessment, evaluation and programming for individuals and groups with orthopedic conditions
4	Lab	Orthopedic conditions (pool session)
5	Lecture	Assessment, evaluation and programming for individuals and groups with neurological, neurosurgical and neuromuscular conditions
6	Lab	Neurological, neurosurgical and neuromuscular conditions Practical Lab Exam
7	Lecture	Assessment, evaluation and programming for individuals and groups with compromised cardiopulmonary conditions Exam #1
8	Lab	Cardiopulmonary conditions (pool session)
9	Lecture	Assessment, evaluation and programming for individuals and groups with rheumatic conditions
10	Lab	Rheumatic conditions (pool session)
11	Lecture	Assessment, evaluation and programming for individuals and groups with systemic or metabolic conditions
12	Lab	Systemic and metabolic conditions (pool session) Practical Lab Exam
13	Lecture	Assessment, evaluation and programming for the pediatric population with special needs Protocols due & Literature Reviews due
14	Lab	Pediatric population (pool session) Practical Lab Exam
15	Lecture	Assessment, evaluation and programming for the individuals and groups who are older and/or healthy injured Presentations due & Final Exam
16	Lab	Individuals and groups who are older and/or healthy injured (pool session) Practical Lab Exam

All of the above individuals and groups with special needs lecture sessions will be accompanied by the following framework:

- (1) definition of terms
- (2) benefits of aquatic therapy
- (3) goals for aquatic therapy
- (4) precautions and contraindications
- (5) techniques and specifics for designing programs

Course Evaluation

(1) written tests.....	2 @ 50 points = 100 points
(2) practical lab exams.....	3 @ 10 points = 30 points
(3) assessment plan and exercise protocol design.....	1 @ 100 points = 100 points
(4) assessment plan and exercise protocol design presentation.....	1 @ 25 points = 25 points
(5) attendance.....	2 absences allowed without penalty
(* Mini review of literature.....	1 @ 50 points = 50 points

(* Graduate level students only

Written exams will be a combination of multiple-choice, fill-in, true/false, short answer and/or essay questions and will be evaluated according to the following scale:

94 – 100% = A	74 - 76% = C
90 – 93% = A-	70 - 73% = C-
87 – 89% = B+	67 - 69% = D+
84 - 86% = B	64 - 66% = D
80 - 83% = B-	60 – 63% = D-
77 - 79% = C+	59% and below = F

Practical lab exams will be given to evaluate your ability to perform aquatic specialty techniques (e.g. Watsu, Bad Ragaz, BackHab) with an individual or group.

Assessment plan and exercise protocol assignment will be graded according to the following rubric:

- ◇ List the appropriate assessment instruments to be used with a selected special needs population with regard to flexibility, muscular strength, muscular endurance, proprioception, cardiovascular fitness and relaxation/cool-down
- ◇ Include all segments of the program in order (e.g. warm-up, flexibility, muscular strength, muscular endurance, proprioception, cardiovascular fitness and relaxation/cool-down)
- ◇ Promote stability before mobility
- ◇ Progress from proximal to distal

- ◇ Move from short levers to long levers
- ◇ Gradually incorporate resistive equipment where appropriate
- ◇ Denote changes in the number of exercises, repetitions and/or sets with regard to warm-up, flexibility, muscular strength, muscular endurance, proprioception, cardiovascular fitness and relaxation/cool-down as it relates to a five-phase plan

90 – 100 points

- ⇒ Listed all of the appropriate assessment instruments
- ⇒ Included all segments of the program in order
- ⇒ All exercises promoted stability before mobility
- ⇒ Each exercise progressed from proximal to distal
- ⇒ Each exercise moved from short levers to long levers
- ⇒ Resistive equipment was included when appropriate
- ⇒ Changes in the number of exercises, repetitions and/or sets with regard to warm-up, flexibility, muscular strength and endurance, proprioception, cardiovascular fitness and relaxation/cool-down were included in a five-phase plan

89 – 80 points

- ⇒ Listed most of the appropriate assessment instruments
- ⇒ Included four of the five segments of the program in order
- ⇒ Most exercises listed promoted stability before mobility
- ⇒ Most exercises progressed from proximal to distal
- ⇒ Most exercises moved from short levers to long levers
- ⇒ Resistive equipment was included when appropriate
- ⇒ Changes in the number of exercises, repetitions and/or sets with regard to warm-up, flexibility, muscular strength and endurance, proprioception, cardiovascular fitness and relaxation/cool-down were included in a five-phase plan

79 – 70 points

- ⇒ Listed some of the appropriate assessment instruments
- ⇒ Included three of the five segments of the program in order
- ⇒ Some exercises listed promoted stability before mobility
- ⇒ Some exercises progressed from proximal to distal
- ⇒ Some exercises moved from short levers to long levers
- ⇒ Resistive equipment was included when appropriate
- ⇒ Changes in the number of exercises, repetitions and/or sets with regard to warm-up, flexibility, muscular strength and endurance, proprioception, cardiovascular fitness and relaxation/cool-down were included in a five-phase plan

69-60 points

- ⇒ Listed a few of the appropriate assessment instruments
- ⇒ Included two of the five segments of the program in order
- ⇒ Few exercises listed promoted stability before mobility
- ⇒ Few exercises progressed from proximal to distal
- ⇒ Few exercises moved from short levers to long levers
- ⇒ Resistive equipment was included when appropriate
- ⇒ Changes in the number of exercises, repetitions and/or sets with regard to warm-up, flexibility, muscular strength and endurance, proprioception, cardiovascular fitness and relaxation/cool-down were included in a five-phase plan

< 59 points

- ⇒ Rewrite and resubmit

Assessment plan and exercise protocol presentation will be graded according to the following guidelines:

Slides covering all of the above areas (appropriate assessment instruments, warm-up, flexibility, muscular strength, muscular endurance, cardiovascular fitness, proprioception, relaxation/cool-down and five-phase plan)

Points for the slides (20)

Points for the organization of information (5)

Mini review of literature will be graded according to the following guidelines:

- Used APA format (5 points)
- Three – five pages in length (1 point)
- Included at least one article pertaining to at least four of the following areas: warm-up, flexibility, muscular strength, muscular endurance, cardiovascular fitness, proprioception, relaxation and/or cool-down (4 points)
- Writing (40 points)

30 - 40 points

- ◇ All four areas were addressed
- ◇ Wrote an introductory and summary paragraph
- ◇ Ideas were presented in a clear and logical order
- ◇ Free of spelling errors
- ◇ Skillful sentence structure

20 – 29 points

- ◇ Three of the four areas were addressed
- ◇ Wrote an introductory and summary paragraph
- ◇ Most ideas were presented in a clear and logical order
- ◇ Most of the paper was free from spelling errors
- ◇ Acceptable sentence structure

10 – 19 points

- ◇ Two of the four areas were addressed
- ◇ Briefly introduced and summarized the paper
- ◇ Some ideas were presented in a clear and logical order
- ◇ Contained some spelling errors
- ◇ Weak sentence structure

0 – 9 points

- ◇ Paper needs to be rewritten and resubmitted within one week

Course Attendance Policy:**Attendance**

Attendance and full participation is expected everyday. You will be allowed to miss two (2) class periods without penalty, after that, five (5) points will be deducted for each missed class. Two and one-half points (2½) points will be deducted if you are late, leave early or do not participate in class activities. You are considered late or tardy if you arrive anytime after the class is scheduled to start. Leaving early is anytime you leave before the time the class is scheduled to end. If it is not possible for you to meet the attendance and participation requirements consider taking the course at another time that is more convenient for you. Please refer to the class schedule for drop dates.

Late Work

One-tenth (1/10) of the total possible points for any one assignment will be deducted for each day your assignment is late (non-class days and weekends are included). For example, if an assignment is worth 100 points and is due on Friday and you turn it in on Monday, 20 points (10 points for Saturday and 10 points for Sunday) will be deducted from your final score.

Make-up Exams

If you miss an exam, zero (0) points are recorded. You may make-up missed exams. Make-ups will be given in full essay format. **Any missed exam must be made up by the very next class meeting you attend.** It will be up to you to approach the instructor and request the make-up.

Extra Credit

You may earn up to five (5) points of extra credit by attending the technology conference. Please see instructor for details.

Students With Disabilities

This instructor, in conjunction with California State University Northridge, is committed to upholding and maintaining all aspects of the federal Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973. If you are a student with a disability and wish to request accommodations, please contact the office of Students With Disabilities Resources located in 110 Student Services Building, or call (818) 677-2684 for an appointment. Any information regarding your disability will remain confidential. Because many accommodations require early planning, requests for accommodations should be made as early as possible. Any requests for accommodations will be reviewed in a timely manner to determine their appropriateness to this setting.

Statement on Cheating and Plagiarism

Cheating or plagiarism in connection with an academic program at a campus is listed in Section 41301, Title V, California Code of Regulations, as an offense for which a student may be expelled, suspended, or given a less severe disciplinary sanction. See university catalog pages 523 through 525 for details on academic dishonesty, cheating, fabrication, facilitating academic dishonesty, plagiarism and faculty policy on academic dishonesty.