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**KIN 370
Motor Learning
and Development**

Course Guide

Independent Study in **Idaho**

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**Kinesiology 370
Motor Learning and Development**

Lewis-Clark State College
3 Semester-Hour Credits

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1-Kin 370

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Kin 370: Motor Learning and Development   3-credits: LCSC

Welcome!
Whether you are a new or returning student, welcome to the Independent Study in Idaho (ISI) program. Below, you will find information pertinent to your course including the course description, course materials, course objectives, as well as information about assignments, exams, and grading. If you have any questions or concerns, please contact the ISI office for clarification before beginning your course.

Policies and Procedures
Refer to the ISI website at **www.uidaho.edu/isi** and select *Students* for the most current policies and procedures, including information on setting up accounts, student confidentiality, exams, proctors, transcripts, course exchanges, refunds, academic integrity, library resources, and disability support and other services.

Course Description
Provides the teacher, coach, or self-instructing athlete with a comprehensive understanding of the developmental (physical, psychological, and social) processes involved in the learning of sport skills. Explores useful training ideas for all types of performers (beginners-advanced, young-old, male-female) in all types of sports and wellness professionals.
11 graded lessons, no exams

Course Materials
Required Course Materials

Both the 4th and the 3rd edition of the textbook will work for the course.

- Coker, Cheryl A., *Motor Learning & Control for Practitioners*. **4th Ed.** 2018. ISBN-13: 978-1138737013. ISBN-10: 1138737011

   OR

- Coker, Cheryl A., *Motor Learning & Control for Practitioners*. **3rd Ed.** Scottsdale: Holcomb Hathaway, 2013. Print. ISBN: 9781934432846

Course Delivery
This course is available online. An electronic course guide is accessible through Canvas at no additional cost. Refer to your *Registration Confirmation Email* for instructions on how to access Canvas.

Course Introduction
In this course, you will study motor behavior and the conditions and factors that influence the learning of motor skills.
Human movement is a complex phenomenon. For practitioners concerned with movement enhancement, that complexity presents a constant challenge. The key to meeting this challenge lies in understanding how people learn.

Course Objectives

This course is designed to help bridge the gap between research and practice by providing students with the necessary tools to build a solid foundation for assessing performance, such as effective instruction and designing practice, rehabilitation techniques, and training experiences that will optimize skill acquisition and performance.

At the end of the course, the student will be able to:

- Demonstrate a basic knowledge of biomechanics.
- Identify critical elements for basic motor skills and develop appropriate sequences.
- Demonstrate with competence basic motor skills, rhythms, and physical activities (sport and games, lifelong leisure activities, and dance).
- Describe and demonstrate concepts and strategies related to skillful movement and physical activity.
- Incorporate interdisciplinary learning experiences that allow learners to integrate knowledge and skills from multiple subject areas.
- Describe and apply disciplinary knowledge (concepts and principles) to skillful movement, physical activity, and fitness.
- Analyze current physical activity issues based on historical, philosophical, sociological, and psychological perspectives.
- Describe the organic, skeletal, and neuromuscular structures of the human body, identify how these systems adapt to skillful movement, physical activity, and fitness and analyze their contributions to motor performance.
- Employ concepts, assumptions, and debates central to inquiry in the study of physical activity.
- Create and use appropriate instructional cues and prompts for basic motor skills, rhythms, and physical activity.
- Support and encourage learner expression through movement.
- Use a variety of developmentally appropriate practices to motivate learners to participate in physical activity inside and outside of school.
- Use strategies to help learners demonstrate responsible personal and social behaviors that promote positive relationships and a productive environment.
- Use strategies to promote mutual respect, support for others, safety, and cooperative participation.
- Use managerial and instructional routines which create smoothly functioning learning experiences.
- Organize, allocate, and manage resources (e.g., time, space, equipment, activities, and teacher attention) to provide active and equitable learning experiences.
- Use strategies to help learners become self-motivated in their learning.
- Describe strategies to teach learners various behavior management techniques.
- Design and implement learning experiences that are safe, appropriate, realistic, relevant, and based on principles of effective instruction.
- Use demonstrations and explanations to link physical activity concepts to appropriate learning experiences.
- Use a variety of formal and informal assessment techniques to assess learner performance, provide feedback, and communicate learner progress.

Assignments

Overview

In general, the course will follow the textbook chapter by chapter. There will be an assignment or assignments associated with each chapter topic area. Typically there will be one or two exploratory activities that give you practical experience in learning about a topic area. There is usually a section of review questions.

You are encouraged to read the entire chapter before beginning the exploratory activities.

Depending on the topic, there may be websites to reference for additional information.

When submitting assignments, be sure to include the question prior to your answer.

Assignment Source

All assignments come from or are adapted from the required textbook.

Coker, Cheryl A. *Motor Learning & Control for Practitioners*. 3rd Ed. Scottsdale: Holcomb Hathaway, 2013. Print. ISBN: 9781934432846

Study Hints:
- Keep a copy of every assignment submitted.
- Complete all reading assignments.
- Set a schedule allowing for course completion one month prior to your personal deadline. An Assignment Submission Log is provided for this purpose.
- Web pages and URL links in the World Wide Web are continuously changing. Contact your instructor if you find a broken Web page or URL.

Refer to the *Course Rules* in Canvas for further details on assignment requirements and submission.

Grading

The course grade will be based upon the following considerations:

		Points
Chapter 1	Introduction to Motor Learning	40
Chapter 2	Understanding Movement	50
Chapter 3	Behavioral Theories	50
Chapter 4	Neural Mechanisms	45
Chapter 5	Stages of Learning	25
Chapter 6	Pre-Instruction Considerations	25
Chapter 7	Skill Presentation	40
Chapter 8	Principles of Practice Design	30
Chapter 9	Practice Schedules	50
Chapter 10	Diagnosing Errors	10
Chapter 11	Correcting Errors	25
Total		390

The final course grade is issued after all assignments and exams have been graded.

Acts of academic dishonesty, including cheating or plagiarism are considered a very serious transgression and may result in a grade of F for the course.

About the Course Developer

Your course developer is Dr. Michael G. Collins, a professor in the Kinesiology Department at Lewis-Clark State College, located in Lewiston Idaho. Dr. Collins is also the head cross country and track coach at the college where he applies many of the theories and techniques talked about in this course. As a coach, he has been named Conference Coach of the Year ten times and has produced over 100 All-Americans in the sports of cross country and track & field. He has been at Lewis-Clark State College since 1997 and has taught a variety of courses for the college. In his spare time, he enjoys fly fishing, doing triathlons, and reading. He is married and has two daughters.

Contacting Your Instructor

Instructor contact information is posted on your Canvas site under *Course Rules.*

Assignment Submission Log

Use this log to help you keep track of your progress through the course.

Lesson	Assignments	Date Submitted	Grade
1: Introduction to Motor Learning and Control	Exploration Activity (20 pts) Chapter Review Questions (20 pts)		
2: Understanding Movement Preparation	Choice Reaction Time (10 pts) Limited Attentional Capacity (10 pts) Selective Attention (10 pts) Chapter Review Questions (20 pts)		
3: Behavioral Theories of Motor Control	Signature Analysis (10 pts) Organismic, Environmental, and Task Constraints (20 pts) Chapter Review Questions (20 pts)		
4: Neural Mechanisms: Contributions and Control	Visual Dominance (5 pts) Ambient vs. Focal Vision (5 pts) Eye Dominance (5 pts) Proprioception (5 pts) Knee Jerk Reflex (5 pts) Chapter Review Questions (20 pts)		
5: Stages of Learning	Juggling Reflection (5 pts) Automatic Behaviors (5 pts) Chapter Review Questions (15 pts)		
6: The Learner: Pre-instruction Considerations	Self-Analysis (15 pts) Chapter Review Questions (10 pts)		
7: Skill Presentation	Verbal Instructions (10 pts) Evaluating Skill Presentation Effectiveness (20 pts) Chapter Review Questions (10 pts)		
8: Principles of Practice Design	Speed-Accuracy Tradeoff (10 pts) Mental Imagery (10 pts) Chapter Review Questions (10 pts)		
9: Practice Schedules	Time on Task (40 pts) Chapter Review Questions (10 pts)		
10: Diagnosing Errors	Chapter Review Questions (10 pts)		
11: Correcting Errors	Guidance Properties of KR (25 pts)		

Lesson 1
Introduction to Motor Learning and Control

Instructional Insight

This chapter gets into primarily the introduction and some of the basic background needed for beginning to understand motor learning and development. As a long-time coach and professor, I sometimes have to make myself go back to this information as it is very easy to begin to overcomplicate things when it comes to teaching and coaching. We often think that more is better and to get someone to "learn" we have to do a bunch of certain things. This is not always the case and often the furthest from the truth. The old KISS adage (Keep It Simple Stupid) is often the most helpful in determining the best way to help someone in the learning process.

Learning Objectives

After reading this chapter and completing the assignment, you should understand that:

- learning and performance are not synonymous.
- there are multiple classification systems for motor skills.
- all learners do not learn the same way or at the same speed with the same teaching strategy.
- individuals have differences that may enhance or limit their potential to learn new tasks.

Reading

Chapter 1 in *Motor Learning & Control for Practitioners*

Assignment Source

All assignments come from or are adapted from the required textbook:

Both the 4th and the 3rd edition of the textbook will work for the course.

- Coker, Cheryl A., *Motor Learning & Control for Practitioners*. **4th Ed.** 2018. ISBN-13: 978-1138737013. ISBN-10: 1138737011

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Written Assignment

Exploration Activity (20 points)

EQUIPMENT NEEDED: 2 tennis balls and some space to move.

GOAL: To successfully juggle two tennis balls using your nondominate hand.

PROCEDURE: To start, place both tennis balls in your nondominant hand. Toss one ball upward. As the ball reaches its peak height, toss the second ball upward, leaving the hand empty to catch the first ball. Continue this pattern, attempting to achieve as many successive catches as possible. Repeat for 10

minutes, recording the number of successful catches you achieve on each trial (from the starting position to the time you drop or miss a catch).

- Assuming that you were eventually able to make two or more catches, can you conclude that you have learned how to juggle two balls with your nondominate hand? Why or why not?
- Let's say in that in the first nine minutes of juggling, you spent more time chasing balls than catching them. Up until the nine-minute mark, your record number of catches was two. All of a sudden, in the last minute you catch six. Does this mean you have learned how to juggle?
- Based on this juggling experience, formulate a definition for learning.
- What learner, task, and environmental factors affected your performance and learning?

Chapter Review Questions (20 points)

Be sure that you have read Chapter 1 before answering the questions below. Be sure to include the entire question when submitting your answers.

1. Compare and contrast motor learning and motor control.
2. Define learning. What is the relationship between learning and performance?
3. What four criteria must a task meet if it is to be classified as a skill?
4. How are skills and abilities different?
5. Explain why most of the classification systems discussed involved a continuum.
6. Briefly summarize each classification system.
7. Explain how Gentile's taxonomy differs from the other classification types. Why is this significant?
8. Explain the controversy over general vs. specific motor abilities.
9. Explain why predicting future performance success is not always accurate.
10. What is the relevance of the interaction of the learner, the task, and the environment in human movement?

Websites of Interest

Simple-to-Complex Progression
http://www.youtube.com/watch?v=Yc6DPo0r1yY

Talent Identification
www.youtube.com/watch?v=8d5e3Enny98

www.uksport.gov.uk/pages/talent-id/

www.youtube.com/watch?v=o6V8fe8R-TE