

# Minnesota State University Moorhead

## EXS 302: Strength and Conditioning Program Design

### A. COURSE DESCRIPTION

Credits: 2

Lecture Hours/Week: 2

Lab Hours/Week: 0

OJT Hours/Week: \*.\*

Prerequisites:

EXS 202 - Strength and Conditioning Exercise Techniques

Corequisites: None

MnTC Goals: None

The purpose of this course is to design strength and conditioning training programs that are safe, effective, and maximize athletic performance.

**B. COURSE EFFECTIVE DATES:** 02/03/2022 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Principles of test selection and administration
2. Administration, scoring and interpretation of selected tests
3. Resistance training program design
4. Plyometric training program design
5. Speed, agility and speed-endurance development
6. Aerobic endurance exercise training
7. Periodization
8. Rehabilitation and reconditioning
9. Facility layout and scheduling
10. Developing a policy and procedure manual
11. Facility maintenance and risk management
12. Performance enhancing substances

#### **D. LEARNING OUTCOMES (General)**

1. Assign training loads, volumes, and rest periods based on training goals.
2. Define the General Adaptation Syndrome and its relationship to resistance training.
3. Describe the four periods of the periodization model.
4. Describe the measuring parameters of athletic performance.
5. Design a plyometric program based on training guidelines.
6. Design a speed and agility training program.
7. Determine the exercise order using the most common methods of ordering resistance exercises.
8. Determine training frequency based on training status and sport season.
9. Discuss the application of program design to training seasons and special issues.
10. Discuss the mechanics of running speed.
11. Discuss the physiology and mechanics of plyometrics.
12. Discuss the principles of test selection and administration.
13. Evaluate the requirements and characteristics of the sport and an assessment of the athlete.
14. Explain the factors related to an aerobic endurance program.
15. Explain the reasons for test selection and administration.
16. Review the different types of aerobic endurance training program.
17. Review the safety considerations for plyometric exercises.
18. Reviews the technique of sprinting and agility.
19. Select exercises for a resistance training program.
20. Describe the rehabilitation and reconditioning strategies in designing strength and conditioning programs.
21. Develop program goals, staff policies and facility administration.
22. Discuss litigation issues including supervision, medical clearance, emergency care, record keeping, and liability insurance.
23. Discuss the guidelines in designing the strength and conditioning facility.
24. Discuss the importance of the Sports Medicine Team.
25. Discuss the principles of applying sport seasons to the periodization periods.
26. Discuss the risks and benefits of performance enhancing substances.
27. Explain the different phases of tissue healing.
28. Identify the importance of maintaining and cleaning equipment to promote a safe strength and conditioning facility.

#### **E. Minnesota Transfer Curriculum Goal Area(s) and Competencies**

None

#### **F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

#### **G. SPECIAL INFORMATION**

None noted