

EDUCATIONAL CURRICULUM & INSTR (EDCI)

EDCI 3350 Investigating Student Learning in Middle Level Mathematics (3)

3 Semester Credit Hours (3 Lecture Hours)

THIS COURSE IS DESIGNED TO INVESTIGATE HOW STUDENTS LEARN MATHEMATICS IN THE CONTEXT OF THE MIDDLE LEVEL MATHEMATICS CURRICULUM TO INCLUDE A SURVEY OF TECHNOLOGIES AND EDUCATIONAL SOFTWARE TO DEVELOP MATHEMATICAL THINKING.

EDCI 4301 STEM Mathematics

3 Semester Credit Hours (3 Lecture Hours)

THIS COURSE PROVIDES THE CONCEPTUAL FRAMEWORK FOR EXPLORING EC-6 MATHEMATICS INTEGRATED WITH ENGINEERING FOR DEEPER UNDERSTANDING, CONNECTIONS, AND COMMUNICATION. FORMAL AND INFORMAL GEOMETRY AND MEASUREMENT CONCEPTS AND SKILLS WILL BE DEVELOPED THROUGH PROBLEM-SOLVING SCENARIOS IN COLLABORATIVE GROUPS. MANIPULATIVES AND TECHNOLOGY WILL SUPPORT THE PROBLEM-SOLVING APPROACH.

THIS COURSE IS DESIGNED TO EMPHASIZE IN-DEPTH BASIC UNDERSTANDINGS OF GEOMETRY AND MEASUREMENT, WHICH IS A CORE IDEA IN THE EC-6 MATHEMATICS CURRICULUM. COMMUNICATING CONCEPTS, PROCESSES OR SOLUTIONS EFFECTIVELY, IN ORAL AND WRITTEN FORMS, WILL BE EMPHASIZED.

EDCI 4302 STEM Science EC-6

3 Semester Credit Hours (3 Lecture Hours)

THIS COURSE PROVIDES THE CONCEPTUAL FRAMEWORK FOR EXPLORING EC-6 SCIENCE WITH DEEPER UNDERSTANDING, CONNECTIONS, AND COMMUNICATION. IT IS DESIGNED TO PROVIDE PRESERVICE TEACHERS WITH A GLOBAL UNDERSTANDING OF TEACHING SCIENCE IN THE EC-6 SCHOOL SETTING. THE MAJOR GOAL IS TO PREPARE TEACHERS WHO CAN EDUCATE STUDENTS TO BECOME SCIENTIFICALLY LITERATE. THIS AIM REQUIRES PRESERVICE TEACHERS TO LEARN ABOUT THE NATURE OF SCIENCE, TO ENGAGE IN SCIENCE INVESTIGATIONS, AND TO CONSTRUCT UNDERSTANDING OF NATURAL PHENOMENA, FORMING AN ELABORATE COGNITIVE FRAMEWORK OF SCIENTIFIC CONCEPTS. STUDENTS' PRIOR KNOWLEDGE FROM PREVIOUS COURSES WILL BE ESSENTIAL TO THEIR PERFORMANCE IN THIS COURSE, NAMELY: TECHNOLOGY IN THE CLASSROOM, LESSON PLANNING, CURRICULUM ORGANIZATION, AND STUDENT ASSESSMENT.

EDCI 4350 Assessment in Middle Level Mathematics

3 Semester Credit Hours (3 Lecture Hours)

THIS COURSE IS DESIGNED TO HELP STUDENTS IDENTIFY AND EXPLORE SOME OF THE KEY ISSUES IN ASSESSING MIDDLE LEVEL MATHEMATICS. STUDENTS WILL DEVELOP ASSESSMENT PRACTICES AND A GREATER AWARENESS OF THE IMPLICATIONS OF ASSESSMENT PRACTICE ON MATHEMATICS LEARNING.