## EDISON STATE COLLEGE

## CURRICULUM COMMITTEE NEW PROGRAM PROPOSAL FORM

TO: CURRICULUM COMMITTEE<br>FROM: Dr. Eileen DeLuca<br>PRESENTER: Dr. Eileen DeLuca<br>DATE: 4-5-10<br>Check one: $\square$ New certificate program $\square$ New AS degree program X New Bachelor's Degree

Program Description: (Attach proposed catalog page with program information, along with samples of curricula for similar programs at other institutions)

See attached program sheet.
Similar programs at other Florida community colleges/state universities:
Colleges/State Universities offering Middle Grades Science (5-9):
Florida Institute of Technology (Private)
Florida Memorial University (Private)
Florida State University (Public)
Indian River State College (Public)
Northwest Florida State College (Public)
St. Petersburg College (Public)
Southeastern University (Private)
Warner University (Private)
Chipola College (Public)
Describe the process by which the need for the new program was identified:
The Middle Grades Science program represents a critical shortage area locally and statewide and will meet immediate needs of the school districts in ESC's region. Edison seeks approval to implement affordable Middle Grades Education programs with academic rigor and relevance that will provide students with opportunities for professional and academic advancement. The Middle Grades program will prepare graduates to secure teaching positions in fifth through ninth grade levels in various science content areas. It also provides districts with teachers prepared for instruction at the elementary, middle and high school levels to maximize content knowledge and provide smooth transitions for students.

Beginning in May 2009, Education program administrators, faculty and staff began the internal and external survey process. On May 24, 2009, the Edison State College District Board of Trustees approved a motion for the College to apply for authorization to offer Bachelor of Science Degrees in Middle Grades Education Math, Middle Grades Education Science and Middle Grades Education in Language Arts with planned implementation dates in Fall 2010. The decision to pursue these degree programs is based on several factors to include strong community support, documented workforce need, the College's successful education baccalaureate programs, and feedback from students enrolled in Edison's associate degree programs in 2008-2009.

The Florida Agency for Workforce Innovation finds that by the 2012-2013 academic year there will be a need for an additional 3,397 middle grades math, science and language arts teachers in Florida. These figures represent a significant increase in the number of new middle grades teachers needed between 2009 and 2013 in the state.

Locally, no public or private institutions of higher education in ESC's region offer Middle Grades Education programs nor do any local institutions intend to develop programs in these areas. ESC seeks to provide additional access to low income and minority students who are less likely to attend private institutions. While state universities may restrict admissions according to criteria such as high school grade point averages and scores on SAT or ACT exams, ESC remains an open-door, baccalaureate degree-granting public institution. Edison devotes considerable resources to remediating the academic skills of those who enter unprepared to take college-level courses. Those who persist to complete an associate degree have acquired the necessary skills to succeed at the baccalaureate level. Through survey research, students have expressed the desire to remain at Edison, an environment in which they have experienced success, to continue their studies.

According to the Office of Research and Evaluation of the Florida Department of Education (December 2008), the three Middle Grades programs proposed (Mathematics, Science, Language Arts) have been designated by the State Board of Education as the top critical teacher shortage areas for 20092010. The Florida Agency for Workforce Innovation finds that by the 2012-2013 academic year there will be a need for an additional 3,397 middle grades math, science and language arts teachers in Florida. These figures represent a significant increase in the number of new middle grades teachers needed between 2009 and 2013 in the state.

Project average enrollment for core courses: Each Middle Grades Education program estimates enrollment of 20 students during the 2010-2011 academic year, as reflected on each Enrollment, Performance and Budget Plan (for a total of 60 new students).

Describe how this projection was determined: The enrollment projection was determined based on student inquiry and student transcript evaluations. Previous baccalaureate programs have started with a similar number of students.

List personnel resources required for implementation in addition to existing resources. Indicate in the box the number of each type of position required:
Faculty position(s)
(list discipline)
Staff position(s)

| (list title) | full time | part time |
| :--- | :--- | :--- |
| full time | part time |  |

Total annual expenses for new positions:
List annual amount required for educational materials/supplies or other operating expenses for implementation: $\quad \$ 4800.00$

Identify the funding source to be used for personnel and operating expenses:
Baccalaureate Grant Budget

JUSTIFICATION FOR CURRICULUM ACTION, OTHER EXPLANATORY INFORMATION:

For any term other than fall of the academic year following submission, approval of the Vice President of Academic and Student Affairs is required.
$\overline{\text { Signature of Vice President of Academic and Student Affairs (if required) }}$

DEPARTMENT CHAIR OR PROGRAM COORDINATOR'S ENDORSEMENT
$\qquad$
ASSOCIATE/ ACADEMIC DEAN ENDORSEMENT: $\qquad$ DATE: $\qquad$
STUDENT ASSESSMENT COMMITTEE CHAIR: $\qquad$ DATE: $\qquad$
DISTRICT DEAN OF INSTRUCTION ENDORSEMENT: $\qquad$ DATE: $\qquad$

## After reviewing and signing this proposal, the District Dean will return the proposal to the Department Chair or Program Coordinator

The Department Chair/Program Coordinator will send this proposal along with any other proposals from his/her department being submitted for review by the Curriculum Committee to the office of the Vice President of Academic and Student Affairs by the Friday before the next scheduled Curriculum Committee meeting.

NOTE: All new courses that are part of a new degree program must be approved separately and individually using the New Course Proposal Form. This proposal must be accompanied by the New Course Proposal Form for each new core and elective course that comprise the degree program along with a common course syllabus for each course.

## Bachelor of Science Middle Grades Science Education

The Bachelor of Science (BS) in Middle Grades Science Education is designed to prepare individuals to teach life and physical science in grades 5-9. The program provides an educational pathway for students who have earned an Associate in Arts degree to include specific science and education prerequisites. Upon graduation, students will meet the mandated state teaching requirements, including teacher certification exams.
Program Highlights: The Middle Grades Science Education program includes courses that prepare teacher candidates to understand the nature of the adolescent learner and the middle grades philosophy. Content courses cover general ecology, scientific processes, physical and biological sciences. In addition, teacher candidates will take courses to prepare them to teach English as a second language, students with exceptionalities, and reading competency. Throughout the program, teacher candidates will develop classroom management and assessment strategies for working with a diverse population of students. Field experience requirements are progressive in nature, building upon previous semester experiences. Students will complete field experience, teach lessons through the practicum courses, and complete a full-time teaching internship in their final semester. Courses are offered for full and part time students, with blended technology and online courses where applicable.

## General Education Requirements:

ENC 1101............................................................................... 3
ENC 1102................................................................................ 3
SPC 1017 or SPC 2023 ............................................................ 3
Humanities Electives................................................................ 6
to include 3 credits writing intensive
*Social Science Electives ......................................................... 9
to include one WOH or EUH course
College Level Mathematics Electives ..................................... 6
**Natural Science Electives w/Lab.......................................... 6
TOTAL.................................................................................. 36
Required Program Prerequisites (grades of C or better)
and electives for the Associate in Arts Degree (minimum of
$\mathbf{2 3}$ credit hours):
*EDF 2005 Intro to the Teaching Profession...................... 3
*EDF 2085 Intro to Diversity for Educators........................ 3
*EME 2040 Intro to Technology for Educators................... 3
*PSY 2012 General Psych. or DEP 2004 Dev. Psych........... 3
**BSC 1010 and 1010L Biological Science I and lab.......... 4
**BSC 1011 and 1011L Biological Science II and lab........ 4
**GLY 1010 Physical Geology and Lab........................... 4
**OCE 1001C Oceanography I......................................... 3
**MAC 2311 Calculus w/Analytic Geometry..................... 4
(Typical prerequisite math sequence: MAC 1105, MAC 1140,
MAC 1114)
Lower division courses taken during final two years:
PHY 2048 and PHY 2048 L Physics I plus lab.................... 5

## OR

CHM 2045 and 2045L General Chemistry I and lab........... 4
(CHM 2045 has a prerequisite that must be met: CHM 2025
General Chemistry)
*courses can be used to satisfy general education requirements in social sciences (in addition to specific WOH or EUH requirement)
**courses can be used to satisfy general education requirements in natural sciences

## Key

APPROVED: The course was previously approved by Curriculum Committee
TBS: To Be Submitted followed by the semester and year
CS: Currently submitted in addition to program proposals

## Sample Course Sequence:

First Semester (full time students): 14 credit hours

| EDG 4930 | Special Topics | 1 | APPROVED |
| :--- | :--- | :--- | :--- |
| ESE 4323 | Educational Assessment | 3 | APPROVED |
| CHM 2045 | General Chemistry I and lab (or PHY 2048) | 4 | APPROVED |
| EDG 3410 | Classroom Management | 3 | APPROVED |
| EDM 3230 | Middle Grades Curriculum \& Instruction | 3 | TBS 9/10 |

This course is an introduction to the field of curriculum and instruction designed specifically for the middle grades teacher. Teacher candidates will examine the uniqueness of the middle school learner, the curriculum and the roles and responsibilities of teaching; including the role of special teachers, problems of individual learners and materials and strategies appropriate for the selected area of concentration. Course content includes curriculum and instructional strategies in middle grades (5-9) content areas. Teacher candidates will connect theory to practice through the creation, implementation and evaluation of meaningful and authentic lessons and experiences. This course requires a minimum of 10 hours in a 5-9 classroom setting.

Second Semester (full-time students): 13 credit hours
TSL 4140 ESOL Curriculum, Methods 3 APPROVED
PCB 3043C General Ecology 3 APPROVED
RED 4335 Reading in the Content Areas 3 APPROVED
SCE 3320 Teaching Biology and other Life Sciences in Middle School w/practicum
APPROVED
Course Change
submitted 4/10
This course covers techniques and materials of instruction for teaching science in the middle grades (5-9). In this course students learn principles of effective curriculum design and assessment and apply these principles by designing and developing interactive biological and life science curriculum projects and assessments for middle school students. This course addresses specific Sunshine State Standards subject matter competencies and pedagogy pertinent to the discipline and required for certification. This course requires thirty-five hours of practicum in a 5-9 classroom setting.

Third Semester (full-time students' typical summer schedule): 8 credit hours
ISC 3120 Scientific Process 3
EDF 4782 Ethics and Law 2
Elective (if needed to reach 120 credit hours for graduation) 3

| RED 4350 | Literacy Content and Processes | 3 | APPROVED |
| :--- | :--- | :--- | :--- |
| EEX 3012 | Educational Needs Ex Stud | 3 | APPROVED |
| EDF 3214 | Human Development and Learning | 3 | APPROVED |
| SCE 3420 | Teaching Physical Science in Middle School w/practicum | 4 | TBS 9/10 |

This course is designed to prepare teacher candidates to teach physical science in the middle grades (5-9). Teacher candidates will apply appropriate strategies in designing and implementing standards-based lessons with physical science focus. Teacher candidates will integrate relevant technology resources for understanding physical science in their lessons. This course requires thirty-five hours of practicum in a 5-9 classroom setting.

## Fifth Semester (fall or spring only): 12 credit hours

SCE 4943 Internship: Middle Grades Science Education 12 TBS 9/10

This course requires teacher candidates to lead instruction in an area 5-9 science classroom under the supervision of a trained clinical educator. Guided by the Florida Educator Accomplished Practices, ESOL Performance Standards, and ESOL K-12 Competencies and Skills, teacher candidates will write lesson plans, choose materials, conduct lessons, and manage student behavior during one semester of full day internship. Over the course of the internship, teacher candidates will conduct systematic inquiry about their work with children in 5-9 school settings and continually revise their classroom instruction and management through a cycle of reflective practice. Teacher candidates will participate in a series of required mandatory seminars at Edison State College.

