



Future Teachers Lead through Math and Science Education

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This Session will:

- Describe the components of Jackson Community College's service learning based teacher education program
- Explain with pictures, samples, lesson plans, and curriculum, connections to math and science to enhance learning and bring individuals together
- Provide an overview of the Community Connection event that unifies pre-service teachers with the needs of the greater Jackson area
- Show key components of Michigan's largest Future Teachers Conference
- Describe how service learning methodologies are incorporated into the pre-service teacher education curriculum
- Share an overview of the Jackson area collaborations and partnerships that create the base for ongoing connections and serve the needs of the community
- Sharing and collaboration is the underlying theme of the session.

How does a Midwestern community college formalize a teacher education program and achieve national recognition within five years? Simple - connect with students at every turn. You ask students, education leaders, and community education systems, "What are the critical components of a benchmark teacher education program?" Collaboratively, answers and solutions are provided.

Curriculum

Numerous highly-successful program components have evolved over the last five years at Jackson Community College (JCC). With Teacher Education identified as one of the top five transfer programs, JCC designated a primary teacher education academic advisor and program coordinator. Faculties have developed 14 teacher education-focused general education courses. Each course integrates service learning within its rigorous coursework. Courses include:

VAE 131 – Visual Arts Education -Students explore aspects of art education with an emphasis on elementary children’s artistic development and “hands-on” art projects. Students study aspects of art related to: history, aesthetics, and art production with diversity and multicultural connections. (Includes service learning and field experience)
No prior art experience necessary.

BIO 131 – General Biology- Students survey the structure and function of cells, the production and use of energy, genetics, and the environmental & evolutionary influences on organisms. (includes a field service experience)

EDU 100 - Pre-Teaching Pathway – An introduction to the teaching profession designed for students with basic skill levels in reading, writing, and math/science. Course includes an introduction to: professional portfolio, teacher professionalism, and technology. Students will experience and investigate opportunities in teacher education. (includes field service)

EDU 221 - Exploring Teaching - Students will gain a broader knowledge of the role of the professional teacher and key education components. (includes field service)

EDU 290 - Instructional Skills Workshop (ISW) - *Option - *Graduate credit at SAU* - In depth experiences and practice in teaching and learning .

EMS 110 – CPR & First Aid – Provides instruction in adult, child and infant, and cardiopulmonary resuscitation and standard first aid. Upon successful completion, certification may be earned.

ENG 131 - Writing Experience - An intensive, personalized writing course designed to help students improve and refine their writing and critical thinking skills while exploring issues related to education.

ENG 132 - Writing Experience - Provides the second semester of writing experience with connections related to the field of teacher education.

ENG 254 - Children's Literature - Students survey the various genre of children’s literature from a critical point of view. Course emphasizes developing student competency in oral reading and presentation of children’s literature. (includes a field service experience)

CIS 101/1014 - Information Tech Education - Enhance computer knowledge. Course covers computer systems and emphasizing software applications concepts related to teacher education. (not edu focus but provides necessary skills for EDU classes)

MTH 210 - Foundations of Mathematics I- Provides background material for students preparing to teach at the elementary level. Emphasizes the structure and properties of the number system. Covers concepts, models and algorithms for whole numbers, integers, fractions, decimals, and percents.

MTH 211 - Foundations of Mathematics II- Provides the second semester of math content for elementary education majors. (includes field service experiences)

MUS 131 - Music Education - Elementary education students are taught the fundamentals of music and then given practical experience in teaching, creating, and accompanying songs and how to enhance an elementary classroom with music.

NSC 131 - Contemporary Science - An interdisciplinary course that introduces the nature of science as a process. (includes a field service experience)

***Chemistry with an EDU focus is going to be offered Winter 07.

Student Opportunities

Area math and science K-12 and pre-service teachers meet several times a year to offer support, introduce new concepts, and problem solve. Monthly *forums* offer pre-service teachers topics ranging from transfer advising to “Tips for Success” panel presentations by former students. *Community Service Connection*, a field service volunteer fair featuring more than 30 partner organizations, is offered each semester in collaboration with the Jackson Non-Profit Support Center and Spring Arbor University (SAU). *Epsilon Chi*, a formal future teacher student organization founded by JCC students at SAU, is open to all pre-service teacher education students. This active group offers a variety of experiences from monthly formal and informal professional workshops, social events, portfolio workshops, and job preparation information. Epsilon Chi provides a network of support and fellowship among students enrolled in the JCC/SAU 2+2 programs.

Students can also choose to participate in a shared list serve of job postings, state and local professional development events and field service opportunities. JCC’s pre-service students participate on the *Jackson County Teacher Education Advisory Council*, a group providing leadership and direction for the teacher education program. Linkages between JCC’s EDU classes and English as a Second Language (ESL) classes have created an integrated classroom offering ESL students math and science experiences while the EDU students gain exposure to ESL teaching and learning. Students participate in a variety of service learning field experiences including teaching special science events for area schools, as well as small group math and science lessons. Every lesson taught in the K-12 classrooms or site is aligned with state and national curriculum standards.

JCC annually co-sponsors, in conjunction with the Jackson County Intermediate School District (JCISD) and the formal teacher education university partner, Spring Arbor University (SAU), Michigan’s largest *Future and New Teacher Conference*. The success of the conference is built upon student leadership and involvement, K-12 practitioners sharing their talents and best practices, and participation by many community college and university future and new teachers.

JCC maintains a teacher education website, offers on-site transfer advising by university partners (three of whom maintain offices on JCC's main campus), and provides Michigan Basic Skills and course-specific tutoring support. JCC is also involved in a high school cadet program, and is presently piloting online science and literacy education with urban fifth graders.

Web Page: www.jccmi.edu/programs/teachereducation

Support for students

In the past 2 years, AmeriCorps Vista professional, Shannon Zoet, was placed at JCC to assist and expand service learning at the college. She has been instrumental in expanding sites and connections for the teacher education program. In the past 4 months JCC has added another AmeriCorps Vista professional to assist in the areas of literacy at the college and in Jackson County. This will also offer future teachers an opportunity to connect with best practices and experiences in literacy and teacher education.

Students are also connected to the Center for Students Success for tutoring and special help with the Michigan Basic Skills testing for teachers. There are many avenues for teacher education advising and financial aid opportunities. The Jackson Community College Foundation has just awarded several teacher education scholarships from personal donors.

Student Response

Each Teacher Education foundation course final exam asks students to identify program strengths and opportunities for improvement. These responses, as well as informal conversations and interactions with students, indicate those features most appreciated. JCC integrates college experiences, which immerse the students in the Teacher Education curriculum, from the onset. Specific features valued include: the Future Teachers Conference, having a designated advisor and personal advising sessions, supportive curriculum, caring faculty with high expectations, variety of formal and informal field experience opportunities, wide selection of EDU-focused courses, professional staff development connections with area schools and the JCISD, opportunities for participation in college and community committees and boards, designated teacher education student resource/work room, interdepartmental faculty collaboration, accessibility to on-site four-year college and university personnel, diverse and multi-cultural connections with area urban schools, and opportunities for leadership at the community and college levels. This year, 27 of the 35 newly hired teachers in the Jackson area began their career at JCC. These new teachers are opening their classroom doors to mentor the area future teachers from Jackson Community College. Strong collaboration and support continue for teachers in Michigan.

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