
Calumet College



of Saint Joseph

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Calumet College of St. Joseph is a Catholic institution of higher learning dedicated to the academic, spiritual and ethical development of undergraduate and graduate students. Informed by the values of its founding religious community, the Missionaries of the Precious Blood (C.P.P.S.), the College promotes the inherent dignity of all people, social justice, an ethic of service, student empowerment, opportunity, and lifelong learning.

COURSE SYLLABUS, Summer 2019

EDUC 481B: Math & Science Methods Elementary

Instructor Information:

Instructor Name	Ms. Marianne Culver
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Office Hours:	By Appointment
Instructor Background:	

Course Information:

Course Time:	5/6/19-5/23/19 M-R: 8:00-12:00 PM
Classroom:	308
Prerequisites:	GENL 299; EDUC 300, 311, and 342
Required Books and Materials:	Provided

Learning Outcomes/ Competencies:

1. Candidates demonstrate an understanding of the 10 InTASC standards at the appropriate progression level(s)¹ in the following categories: the learner and learning; content; instructional practice; and professional responsibility. CAEP 1.1
2. Clinical experiences, including technology-enhanced learning opportunities, are structured to have multiple performance-based assessments at key points within the program to demonstrate candidates' development of the knowledge, skills, and professional dispositions, as delineated in Standard 1, that are associated with a positive impact on the learning and development of all P-12 students. CAEP 2.3
3. Recruit diverse candidates who meet state, national, regional or local needs for hard-to-staff areas, including STEM, English-language learners and students with disabilities. CAEP 3.1
4. Candidates demonstrate attributes and dispositions beyond academic ability. CAEP 3.3

5. Candidates demonstrate the ability to teach to college- and career-ready standards, and present multiple forms of evidence to indicate candidates' developing content knowledge, pedagogical content knowledge, pedagogical skills, and the integration of technology in all these domains. CAEP 3.4
6. The candidate understands the expectations of the profession, including codes of ethics, professional standards of practice, and relevant laws and policies. CAEP 3.6

Mission of the Education Program:

Respecting the diverse gifts and culture of each student, the Education Program of Calumet College of St. Joseph prepares quality teacher candidates for the 21st Century through a refining process, which entails professional preparation, continuous reflection and ongoing transformation. The Education Program promotes a multicultural community characterized by diversity, integrity, compassion and commitment.

Vision of the Education Program:

Rooted in the Catholic tradition, the Education Program of Calumet College of St. Joseph: values the dignity and worth of each teacher candidate; shapes attitudes and values; strives for social justice; instills sensitivity for the poor and the powerless; and refines professional competency and scholarship in every teacher candidate. At CCSJ we are committed to developing the natural abilities of our students, refining them into high quality professional educators.

Course Description:

EDUC 485B provides students with the opportunity to apply their knowledge of developmental psychology, educational theory, exceptionalities, curriculum development, assessment and classroom management to teaching mathematics and science at the elementary level. Teacher candidates will demonstrate a commitment to: mathematics and science learning of all students, knowledge of mathematics and science and their students; creating an environment in which students are active learners willing to take risks; employing a range of assessment methods; reflecting regularly on what and how they teach, and how to impact students more effectively; collaborating with their students' families and communities to support learning; and collaborating with other teachers and teaching professionals to improve the quality of their mathematics and science programs. The course will prepare students to teach in the Calumet College Summer Reading and Mathematics Program, with a capstone assignment of preparing a curriculum and lesson plans for the SRMP and the capstone experience of assessing their students' mathematics readiness and analyzing the results of the assessments. **Clinical Experience provided.**

Learning Strategies:

Discussions, Team Projects, Collaborative Learning and Direct Instruction.

Experiential Learning Opportunities:

Field Experience Required.

Requirements and Assessments:

Grading Scale:

100% – 92%: A	91% – 90%: A-	
89% – 88%: B+	87% – 82%: B	81% – 80%: B-
79% – 78%: C+	77% – 72%: C	71% – 70%: C-
69% – 68%: D+	67% – 62%: D	61% – 60%: D-
59% and below:	F	

Assessments

SCOPE AND SEQUENCE DOCUMENT FOR MATH 10 POINTS: Create a scope and sequence document for your classroom for the duration of the Summer Reading and Mathematics Program, designed to cover the above lesson plans, as well as your instruction for the remainder

of the SRMP. You must turn in a copy of your scope and sequence documents to me on Blackboard **by 11:59 p.m.** In addition, you should keep these documents in a binder.

MATH UNIT LESSON PLAN 20 POINTS

Choose a particular mathematics skill appropriate for the age and grade level you are working with. Some possibilities are:

- *adding and subtracting positive and negative integers;
- *calculating the areas of two dimensional shapes;
- *add within 100;
- *plot and compare whole numbers up to 100 on a number line;
- *recognize and generate equivalent fractions;
- *show how the commutative and associative properties do not change value;
- *solve long division problems using different strategies; and
- *compute fluently with positive fractions and positive decimals

Develop a unit lesson plan to teach the skill to your Summer Reading and Mathematics Program. Your plan should cover at least the first four days of the SRMP (Monday through Thursday) and include:

- a review of prerequisite skills;
- relevant vocabulary;
- demonstration, whole-class practice, individual practice (gradual release);
- a hands-on component; and
- real-world problem practice

You must turn in a copy of your plan to me on BlackBoard **by 11:59 p.m.** In addition keep all lesson plans created for this class in a binder.

MATH MANIPULATIVES LESSON PLAN AND REFLECTION LP (20 POINTS) DUE JUNE 22; REFLECTION (10 POINTS)

Choose a type of manipulative from among those explored in class. Develop a lesson plan to show how you will teach it to your group of students. Complete a CCSJ lesson plan; describe it in class; after you teach the plan, complete a one-page reflection on your experience. Your reflection should include what went well and what did not; what happened that you did NOT plan for; whether you believe the lesson was effective in meeting its objectives, and why or why not; what was easiest for you and what you found most difficult; and how you would revise the lesson next time to take advantage of what went well or was easy and to become more effective at what you found most difficult. ***Hand in the lesson to BlackBoard plan by 11:59 p.m. Hand in the reflection on BlackBoard by 11:59 p.m.***

MATH CENTER ACTIVITY 20 POINTS, DUE TO BE PRESENTED

Create a math center activity that you will use as part of your classes. Each activity should be adaptable for both individual and small group use and be able to actively engage students for a period of fifteen to twenty minutes (10 minutes, for K-1st grade). You will be asked to explain and describe your activity to the class and provide samples of materials for all class members and the instructor. You may want to use your math game as a starting point. This project will be explained further during class, and examples will be shown. ***Materials are to be handed in in class, in hard copy, at the time you present your activity.***

REFLECTION ON PRE-TEST RESULTS 10 POINTS, DUE BEFORE CLASS

Hand in a reflection at least one page long (double-spaced) describing the conclusions you draw from your reading and math test results, and how your lesson plans will take account of those results. ***Hand in on BlackBoard before class.***

LABORATORY EXERCISE LESSON PLAN 20 POINTS, TO BE PRESENTED IN CLASS

Prepare a **one-day lesson plan** with a laboratory exercise. Include all CCSJ LP elements. Create and include:

- instructions for your students, together with questions for them to answer (at least one question must require evaluation or synthesis);
- a lab report template with developmentally-appropriate versions of these sections: Title, Problem, Hypothesis, Procedure, Data (table or graph), Analysis (questions), Conclusion.

Materials and lesson plan are to be handed in in class, in hard copy, at the time you present your activity.

FIELD TRIP PLANNING PACKAGE 20 POINTS, TO BE PRESENTED IN CLASS

Prepare for a science-centered field trip. Choose a destination and prepare the following items:

- a request to be signed by your principal, including, among other things, a request for transportation;
- a permission slip (be sure to include cost and emergency contact info, and to consider lunch plans);
- a request for parent chaperones;
- an activity for your students, including whatever handout(s) your students need in order to complete it; and
- a summary indicating your learning objective for the trip, academic standards covered, how you will prepare your students before the trip, what they will do during the trip and how you will follow up after the trip.

Materials are to be handed in in class, in hard copy, at the time you present your activity.

CRITICAL ESSAY 20 POINTS, DUE JULY 2 You will write a critical essay comparing the three instructional approaches we reviewed: gradual release, flipped classroom and centers. Your essay should be 5 pages long, and should:

- briefly describe each of the approaches;
- describe advantages and disadvantages of each;
- identify one as most useful for you; and
- explain why the approach you chose seems most useful for you, at least at this point in your development as a teacher.

In discussing each approach, you might consider (among other issues) its appropriateness for the grade level you are teaching in the SRMP, and how well (or not) it fits with your educational philosophy. ***Hand in the essay on BlackBoard by 8:00 a.m.***

OBSERVATION ZERO POINTS, EARLY DAYS OF TEACHING I will observe you and provide feedback, using the CCSJ Elementary Mathematics and Science Methods Clinical Experience Evaluation Form, during the first few days that you teach in the SRMP. My feedback will not count toward your grade in this course, but I urge you to take the experience seriously, as it will be the first of numerous classroom observations you experience throughout your career. I will give you advance notice of the date of the observation. Please be available for feedback on the day of the observation, immediately after your SRMP students leave the campus.

I reserve the right to change this schedule to meet the needs of the class.

Responsibilities	
Attending Class	You cannot succeed in this class if you do not attend. We believe that intellectual growth and success in higher education occur through interaction in the classroom and laboratories. Being absent doesn't excuse you from doing class work; you have more responsibilities to keep up and meet the objectives of this course.
Turning In Your Work	You cannot succeed in this class if you do not turn in all your work when due.
CCSJ Student Honor Code	This course asks students to reaffirm the CCSJ Student Honor Code: I, as a student member of the Calumet College academic community, in accordance with the college's mission and in a spirit of mutual respect, pledge to: <ul style="list-style-type: none"> • Continuously embrace honesty and curiosity in the pursuit of my educational goals; • Avoid all behaviors that could impede or distract from the academic progress of myself or other members of my community; • Do my own work with integrity at all times, in accordance with syllabi, and without giving or receiving inappropriate aid; • Do my utmost to act with commitment, inside and outside of class, to the goals and mission of Calumet College of St. Joseph.
Using Electronic Devices	Electronic devices can only be used in class for course-related purposes. If you text or access the Internet for other purposes, you may be asked to leave, in which case you will be marked absent.
Participating in Class	You must be on time, stay for the whole class and speak up in a way that shows you have done the assigned reading. If you are not prepared for class, you may be asked to leave, in which case you will be marked absent.
Doing Your Own Work	If you turn in work that is not your own, you will be subject to judicial review by the Faculty-Student Grievance Committee. These procedures can be found in the Student Planner. The maximum penalty for any form of academic dishonesty is dismissal from the College. Using standard citation guidelines to document sources avoids plagiarism. You'll find guides to the major citation methods at the CCSJ Specker Library Web page at http://www.ccsj.edu/library/subjectsplus/subjects/guide.php?subject=cite PLEASE NOTE: All papers may be electronically checked for plagiarism.
Sharing Your Class Experience	At the end of the term, you will have the opportunity to evaluate your classroom experience. These confidential surveys are essential to our ongoing efforts to ensure that you have a great experience that leaves you well prepared for your future. Take the time to complete your course evaluations – we value your feedback!
Withdrawing from Class	After the last day established for class changes has passed (see the College calendar in the CCSJ Course Catalog), you may withdraw from a course by following the policy outlined in the Course Catalog.

Resources

CCSJ Book Rental Program	The CCSJ Book Program ensures that everyone has the right course materials on the first day of class to be successful. You pay a book rental fee each semester, and in return, receive all the materials for all your classes prior to the beginning of classes. At the end of the semester, simply return the books. For traditional students, the Book Rental Program is conveniently located in the library, where students can pick up and return their books. For students in accelerated programs and graduate programs, books will be delivered to their homes and they can return them by mail. For more information, see http://www.ccsj.edu/bookstore . All books must be returned at the end of the semester or you will incur additional fees, which will be charged to your student account.
Student Success Center:	The Student Success Center provides faculty tutors at all levels to help you master specific subjects and develop effective learning skills. It is open to all students at no charge. You can contact the Student Success Center at 219 473-4287 or stop by the Library.
Disability Services:	Disability Services strives to meet the needs of all students by providing academic services in accordance with Americans with Disabilities Act (ADA) guidelines. If you believe that you need a “reasonable accommodation” because of a disability, contact the Disability Services Coordinator at 219-473-4349.
Student Assistance Program	Through a partnership with Crown Counseling , Calumet College of St. Joseph provides a free Student Assistance Program (SAP) to current students. The SAP is a confidential counseling service provided to students for personal and school concerns which may be interfering with academic performance and/or quality of life. The SAP counselor is available on campus once a week and off-site at the Crown Counseling offices in Crown Point or Hammond. For more information, contact Kerry Knowles SAP Counselor , at 219-663-6353 (office), 219-413-3702 (cell), or kerryk@crowncounseling.org .
CCSJ Alerts:	Calumet College of St. Joseph’s emergency communications system will tell you about emergencies, weather-related closings, or other incidents via text, email, or voice messages. Please sign up for this important service annually on the College’s website at: http://www.ccsj.edu/alerts/index.html .