DREXEL UNIVERSITY
School of
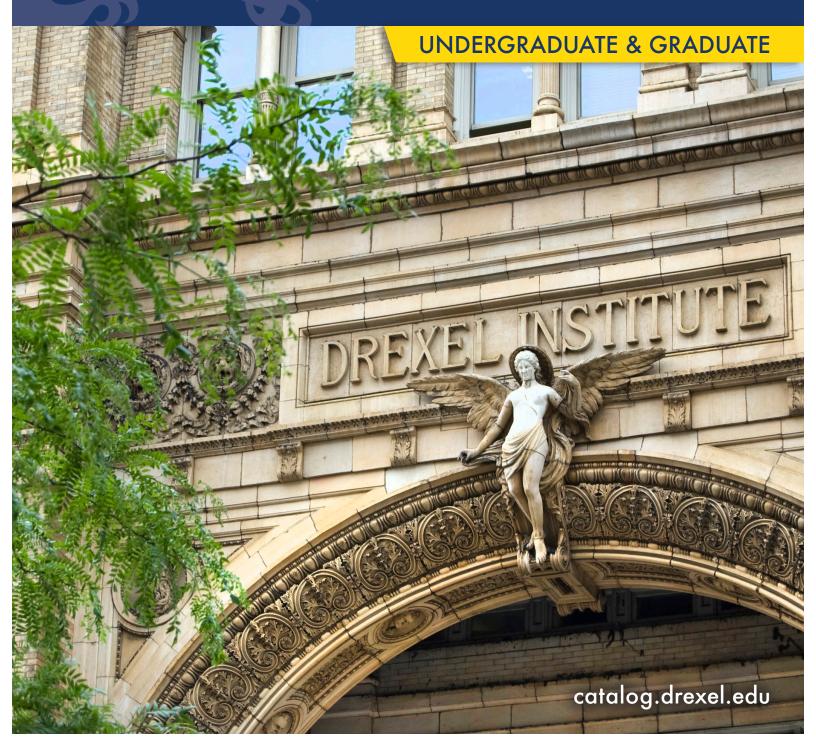Education

CATALOG
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DREXEL INSTITUTE

catalog.drexel.edu

About the School of Education: Undergraduate

The School of Education offers Pennsylvania Department of Education-approved programs to certify students who want to become teachers. Undergraduate students have the option to choose from a variety of traditional full-time and non-traditional part-time on-campus and online programs. These programs are designed to meet the needs of a variety of diverse learners who wish to pursue a bachelor's degree and Pennsylvania State Certification in elementary (grades Prek-4), middle level (grades 4-8) and/or secondary (grades 7-9).

School of Education undergraduate students have the option to choose from the following program options: BS on-campus (full or part-time) taking day or evening courses, or the part-time Online BS Degree completion program. In addition, any Drexel non-education undergraduate student who is interested in becoming a teacher has the option to enroll in either the BS/MS or BA/MS Dual Degree programs (4 or 5 year options) regardless of their major.

The School of Education (http://www.drexel.edu/soe) seeks to enrich knowledge and practice related to lifespan learning, based on the most current and appropriate research and practice. Our goal is to improve human understanding through programs and activities that emphasize creative uses of human effort, technology, leadership, and problem solving.

Majors

Minor

About the Curriculum

The School of Education's programs apply the most updated trends in theory, instruction, and leadership, with an emphasis on effective teaching integrating the sciences, enhancing teaching by using technology, two central components of every Drexel Education. In addition, this is the only such program in the country to incorporate a six-month paid internship in industry related to the student's area of certification or individual interest.

Certification for classroom instruction is organized according to the two majors, the BS in Elementary Education and the BS in Secondary Education. Below is a list of all certification areas currently offered by the School of Education.

- Elementary education
  - Elementary: PK-4
  - Elementary: PK-4 and Special Education
  - Middle Level Math and English
  - Middle Level Science and English
  - Middle Level Science and Math
- Secondary education (grades 7-12)
  - Biology
  - Chemistry
  - Earth and Space Science
  - English
  - General Science
  - Mathematics
  - Physics
  - Social Studies
  - Environmental Education (grades K-12)

Students may acquire certification in more than one subject area.

The School of Education uses university-wide resources to prepare fully qualified teachers at both the elementary and secondary levels. The Teacher Education Program at Drexel University is closely aligned with National INTASC Teaching Standards as well as the Pennsylvania Department of Education's Four Domains for Professional Teaching. In addition, the Teacher Ed Program has identified seven **Program Outcomes**, which identify the specific qualities that set the Drexel Teacher Candidate apart from other candidates in the field. These program outcomes are directly aligned with the Drexel University Student Learning Priorities (DSLP). It is expected that students exiting the Teacher Education Program at Drexel University will exhibit these seven standards in his/her professional teaching practice.

Program Outcomes:

1. The teacher candidate demonstrates independent and creative academic leadership skills that can be applied in the classroom, school community and the profession.

2. The teacher candidate understands the changing role of the educator in an increasingly diverse society, and applies this understanding in the classroom, school community and profession.

3. The teacher candidate holds a global perspective on current issues in education, understands best pedagogical practices, and utilizes this knowledge in the classroom, school community and profession.

4. The teacher candidate recognizes the importance of the application of educational research as a tool to explore critical aspects of teaching and learning in PK-12 setting.

5. The teacher candidate demonstrates a strong academic background in all subject areas that meet PDE content requirements, with strong emphasis on mathematics and science.

6. The teacher candidate can effectively integrate tools of technology in curriculum, assessment and instruction to enhance PK-12 student learning.

7. The teacher candidate demonstrates the ability to reflect upon one's professional practice through the successful completion of course work and engagement in experiential learning to promote positive, transformative change within the profession.

Pennsylvania Instructional I Teaching Certifications

There are multiple ways for Drexel University students to obtain their initial and add-on teaching certifications in Pennsylvania while pursuing their current major at Drexel. Education majors have the opportunity to achieve these certifications through the Bachelors of Science Education program, the BS/MS dual degree, the graduate level Post-baccalaureate (PBC) and Masters (MS) in Teaching Learning and Curriculum programs.

Non-teaching education majors may have the opportunity to build teacher certification into their program of study as electives, depending on their major. Those students who cannot manage the whole certification program may opt to participate in the (non-certification) education minor. Undergraduate students also have the option to enroll in as many content courses as can be managed in their undergraduate degree and then finish their teaching certification requirements through the Post-baccalaureate Teaching Certification or Masters in Teaching Learning and Curriculum programs. Additionally, undergraduate non-education majors can pursue a Master's degree in Teaching, Learning, and Curriculum with Teaching Certification through the BA/MS or BS/MS dual degree route while in their current major provided they meet and maintain the program's minimum criteria of a 3.0 cumulative GPA requirement and have completed no more than 90-120 credits at Drexel at the time of applying for the dual degree program.

*Please note that during a Drexel student's senior year, undergraduate students have the option to take up to and including 9 graduate credits in core pedagogy education courses that can be applied to a future graduate level Post-baccalaureate Teacher Certification or MS degree program at Drexel provided that these graduate credits are not required for UG degree completion and the student received a minimum grade of a "B" in those graduate courses.

Please be advised that the Pennsylvania Department of Education requires that all teacher certification candidates must maintain a 3.0 GPA in their degree or certification program in order to be recommended for state certification.

Combination certifications are available from the School of Education. Sample combinations include:

- Grades PreK-4 certification, with certification in Special Education.
- Biology certification, with courses for additional certification in chemistry.
- Chemistry certification, with courses for additional certification in biology.
- Earth and space science certification, with courses for additional certification in chemistry.
- Earth and space science certification, with courses for additional certification in physics.
- Mathematics certification, with courses for additional certification in physics.
- Physics certification, with courses for additional certification in mathematics.

Students pursuing the appropriate majors in the College of Arts and Sciences may also complete the requirements for certification within their area of study.
For more information, please contact the Program Manager or the School of Education at 215.895.6770.

Post-Graduate Opportunities

Students obtain employment in the School District of Philadelphia and neighboring school districts in Pennsylvania and such surrounding states as New Jersey, Delaware, Ohio, and New York. Often, students begin a graduate degree program in combination with their employment.

Writing-Intensive Course Requirements

In order to graduate, all students must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

A "WI" next to a course in this catalog may indicate that this course can fulfill a writing-intensive requirement. For the most up-to-date list of writing-intensive courses being offered, students should check the Writing Intensive Course List on the Drexel University Writing Center page. Students scheduling their courses in Banner/DrexelOne can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Co-Operative Education

Drexel University has long been known for its co-operative education program, through which students combine periods of fulltime, career-related employment with their studies. Internship employment is a requirement for all teacher education majors.
The BS degree is completed in four years. In addition to the Pennsylvania Department of Education's (PDE) state mandated field experiences and 12 week student teaching, this program includes one six-month internship period of full-time employment related to the student's initial area of teacher certification. The goal of the co-op program in teacher education is to provide real-world experiences for future teachers to use in their classrooms.

Students typically participate in co-ops during their fall and winter terms of their sophomore year and pursue varied positions geared directly to their area(s) of certification. Candidates are asked to pursue a position that would allow them to see other areas of education that reach beyond K-12 teaching. This caveat to the requirement allows candidates to understand the broadness and extensive nature of the field of education both nationally and internationally.

Students have interned in a variety of institutions or museums such as the Philadelphia School District, the Philadelphia's Please Touch Museum, Drexel's Academy of Natural Science (http://www.ansp.org)Museum

(http://www.ansp.org), the Philadelphia Dream Academy, Children's Hospital of Philadelphia, and the Franklin Institute Science Museum just to name a few.

While the BS/MS 5 year dual degree program offers both a co-op, PA state mandated field experiences and student teaching, the BS/MS 4 year dual degree program only requires the PA state mandated field experiences and student teaching, not a co-op experience.

Facilities

The Drexel Center for the Prevention of School-aged Violence (http://goodwin.drexel.edu/centers_posav.php) is located within the School of Education at Drexel University, 3141 Chestnut Street, Philadelphia, PA 19104. The mission of the center is to create public awareness around the need for youth-focused, evidence-based efforts aimed at preventing youth violence from occurring in environments where youth grow, learn, and recreate.

Our vision is to help ensure that all youth possess the requisite social and cognitive skills to prevent violence on their own, which includes developing conflict resolution and mediation skills. We also strive to inform policy leaders and stakeholders of the various types of evidence-based activities that prevent school-aged violence.

The Math Forum is a leading center for mathematics and mathematics education on the Internet. Operating under Drexel's School of Education, our mission is to provide resources, materials, activities, person-to-person interactions, and educational products and services that enrich and support teaching and learning in an increasingly technological world.

For more information about these and other School of Education centers, visit the Centers of Goodwin College (http://goodwin.drexel.edu/centers.php) website.

Elementary Education

About the Program

Bachelor of Science Degree 180.0-188.5. credits
Elementary school teachers instruct classes of children in several subjects. Often they work as part of a team with other teachers who are jointly responsible for a group of students in at least one subject.

The BS in Elementary Education uses university-wide resources to prepare fully qualified teachers at the primary education levels. Students in the School of Education participate in one six-month cooperative education (co-op) experience in a professional position related to their area of certification.

Primary teacher certification options include:

- Pre-Kindergarten - Grade 4 (p. 4)
- Pre-Kindergarten - Grade 4 & Special Education (p. 5)
- Middle Level (grades 4-8) Mathematics and English (p. 7)
- Middle Level (grades 4-8) Science and English (p. 9)
- Middle Level (grades 4-8) Science and Mathematics (p. 11)

Students may acquire certification in more than one subject area.

The program requires that students have a B average (3.0 GPA) in content courses needed for teacher certification in addition to the grade of B or better in each EDUC course throughout their time in the program. These requirements must be satisfied in order for Drexel to recommend the student for teacher certification upon graduation and/or be considered to have completed the program.

A benchmark to assist students in meeting the GPA and B grade requirements is the formal review of each student's content and pedagogy coursework at the end of the sophomore year. Students who meet these requirements, as well as pass the *Pre-Professional Skills Test* (PPST Reading, PPST Writing, PPST Mathematics) of the *ETS Praxis Exams* according to Pennsylvania standards at that time, are officially accepted into Drexel's Teacher Preparation Program. Students who do not meet the requirements work with their academic advisor to develop a plan of action to work toward meeting the requirements, continue in the program to work toward the BS degree without being recommended for a teaching certificate, or explore another major.

Students participate in classroom observations and limited direct teaching experiences as a component of many of their pedagogy courses beginning in their freshman year. Students have the option of the following teacher certification/concentration tracks within their major which determines their individual program of study:

Elementary Education, Pre-Kindergarten through Grade 4: focused study to work with children in pre-kindergarten, kindergarten, and grades 1-4 across subject areas (ages 3-9). The competencies for this concentration include child development (birth through age 5), language development, early literacy and math foundations for preschool years, early intervention, integrating the arts for the developing child and family and community partnerships.

Elementary Education, Pre-Kindergarten through Grade 4 and Special Education: focused study to work with children in pre-kindergarten, kindergarten, and grades 1-4 across subject areas (ages 3-9) within the competencies listed previously as well as working with students with disabilities in pre-kindergarten, kindergarten and grades 1-8 (ages 3-14). The special education competencies emphasize the Response to Intervention process, working with students at risk for and with/without disabilities, progress monitoring techniques, research-based instructional practices and interventions.

Elementary Education, Middle Level: focused study to work with students in grades 4-6 across subjects and with students in grades 7-8 in two core academic subject(s) the teacher education candidate chooses to pursue:

- Middle School Mathematics & English
- Middle School Science & English
- Middle School Science & Math

In the senior year, students who are officially accepted into the Teacher Preparation Program and maintain the GPA and grade requirements, enroll and complete the 12-week, full-time, student-teaching experience () in their primary area of certification. Students must receive a grade of at least B in (and if applicable) and in all pedagogy (EDUC) coursework, as well as maintain an overall 3.0 GPA to be recommended for teacher certification.

Students who were not officially accepted into the Teacher Preparation Program and/or do not maintain the GPA and grade requirements but who are working towards the BS degree without being recommended for teacher certification take other courses as assigned by the Teacher Education Program Director and/or academic advisor to fulfill needed credits for the degree in lieu of student teaching.

Students pursuing the appropriate majors in the College of Arts and Sciences may also complete the requirements for certification within their area of study. For more information, contact the Program Coordinator for the School of Education at 215-895-6770.

Additional information is available at the School of Education's (http://www.drexel.edu/soe) web site.

Elementary Education: PK-4

About the Concentration

Bachelor of Science Degree: 180.5 quarter credits

This certification option within the BS in Elementary Education (p. 3) enables teachers to work with children in pre-kindergarten, kindergarten, and grades 1 through 4 (ages 3-9) across subject areas. Required competencies are covered in areas such as child development, language development, early literacy and math foundations for preschool years, early intervention, integrating the arts for the developing child, and family and community partnerships.

Additional Information

For more information about the program, visit the School of Education (http://goodwin.drexel.edu/soe) website.

Degree Requirements

General Education/Content Requirements

BIO 100	Applied Cells, Genetics & Physiology	3.0
BIO 101	Applied Biological Diversity, Ecology & Evolution	3.0
CHEM 111	General Chemistry I	4.0
COM 111	Principles of Communication	3.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
ENVS 260	Environmental Science and Society I	3.0
HIST 276	The History of Philadelphia	3.0
MATH 181	Mathematical Analysis I	3.0
MATH 182	Mathematical Analysis II	3.0
MATH 183	Mathematical Analysis III	3.0
MUSC 130	Introduction to Music	3.0
PHYS 151	Applied Physics	3.0
PSY 101	General Psychology I	3.0
PSY 320 [WI]	Educational Psychology	3.0
PSY 330	Cognitive Psychology	3.0
SOC 335	Sociology of Education I	3.0
UNIV T101	The Drexel Experience	2.0
English elective course between 200-329		3.0
Nutrition elective [*]		3.0
Free electives [**]		24.0

Pedagogy Requirements

EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	3.0
EDUC 120	Child Development I: Typical Development	3.0
EDUC 121	Child Development II: Atypical Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 210	Early Language Development	3.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 236	Early Literacy I	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 265	Instructing English Language Learners	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 307	Assessment of Young Children II	4.0
EDUC 314	Science Teaching Methods	3.0
EDUC 317	Math Methods and Content: Early Childhood	3.0
EDUC 318	Math Methods & Content	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 326 [WI]	Language Arts Processes	3.0
EDUC 335	Engaging the Learner	3.0
EDUC 336	Early Literacy II	3.0
EDUC 338	Expressive Arts for PK-4	3.0
EDUC 355	Social Studies Teaching Methods	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 411	Family and Community Partnerships	3.0

Student Teaching Experience

EDUC 410	Student Teaching	9.0
Total Credits		180.5

[*]   NFS 101 is the recommended Nutrition elective.

[**]   Students wishing to receive PA Teacher Certification upon graduation in the area of Elementary Education should take EDUC 475 Conflict Resolution and Prevention School Violence as an elective.

Elementary PK-4 Concentration: Plan of Study

4 YR UG Co-op Concentration

Term 1		Credits
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 120	Child Development I: Typical Development	3.0
ENGL 101	Expository Writing and Reading	3.0
MATH 181	Mathematical Analysis I	3.0
PSY 101	General Psychology I	3.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**17.0**
Term 2		
BIO 100	Applied Cells, Genetics & Physiology	3.0

Course	Title	Credits
COM 111	Principles of Communication	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 121	Child Development II: Atypical Development	3.0
ENGL 102	Persuasive Writing and Reading	3.0
MATH 182	Mathematical Analysis II	3.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**17.0**
Term 3		
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 314	Science Teaching Methods	3.0
ENGL 103	Analytical Writing and Reading	3.0
MATH 183	Mathematical Analysis III	3.0
NFS 101	Introduction to Nutrition & Food	3.0
	Term Credits	**17.5**
Term 4		
BIO 101	Applied Biological Diversity, Ecology & Evolution	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 236	Early Literacy I	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
ENGL 200 Through ENGL 399		3.0
	Term Credits	**14.5**
Term 5		
HIST 276	The History of Philadelphia	3.0
PHYS 151	Applied Physics	3.0
EDUC 265	Instructing English Language Learners	3.0
EDUC 326 [WI]	Language Arts Processes	3.0
EDUC 317	Math Methods and Content: Early Childhood	3.0
	Term Credits	**15.0**
Term 6		
ECON 201	Principles of Microeconomics	4.0
EDUC 210	Early Language Development	3.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 246	Literacy and Content Skill Development	4.5
	Term Credits	**14.5**
Term 7		
CHEM 111	General Chemistry I	4.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
PSY 320 [WI]	Educational Psychology	3.0
SOC 335	Sociology of Education I	3.0
	Term Credits	**17.0**
Term 8		
EDUC 306	Assessment of Young Children I	3.0
EDUC 335	Engaging the Learner	3.0
EDUC 355	Social Studies Teaching Methods	3.0
EDUC 318	Math Methods & Content	3.0
ENVS 260	Environmental Science and Society I	3.0
	Term Credits	**15.0**
Term 9		
EDUC 307	Assessment of Young Children II	4.0
EDUC 336	Early Literacy II	3.0
Free Electives		9.0
	Term Credits	**16.0**
Term 10		
EDUC 338	Expressive Arts for PK-4	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 411	Family and Community Partnerships	3.0
MUSC 130	Introduction to Music	3.0
PSY 330	Cognitive Psychology	3.0
	Term Credits	**13.0**
Term 11		
EDUC 410	Student Teaching	9.0
Free Elective		3.0
	Term Credits	**12.0**
Term 12		
Free Electives		12.0
	Term Credits	**12.0**

Total Credit: 180.5

Elementary Education: PK-4 and Special Education

About the Concentration

Bachelor of Science Degree: 188.0 quarter credits

This certification option within the BS in Elementary Education (p. 3) enables teachers to work with children in pre-kindergarten, kindergarten, and grades 1 through 4 (ages 3-9) across subject areas, with the addition of being specialized to work with students at risk for disabilities or with disabilities. As with the Elementary PK-4 certification, the program covers required competencies such as child development, language development, early literacy and math foundations for preschool years, early intervention, integration of the arts for the developing child, and family and community partnerships.

Improvements in the diagnosis of learning disabilities at earlier ages have resulted in an increase in the number of students requiring special education. This program is designed to provide the information necessary to: understand the complexities of the disabled learner's needs; modify a curriculum appropriately; provide remedial instruction; use technology to address the learner's needs/progress; manage instruction for students with special needs in the inclusive classroom; as well as additional approaches to assessment and special education teaching techniques.

Additional Information

For more information about the program, visit the School of Education (http://goodwin.drexel.edu/soe) website.

Degree Requirements

General Education/Content Requirements

Course	Title	Credits
BIO 100	Applied Cells, Genetics & Physiology	3.0
BIO 101	Applied Biological Diversity, Ecology & Evolution	3.0

CHEM 111	General Chemistry I	4.0
COM 111	Principles of Communication	3.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
ENVS 260	Environmental Science and Society I	3.0
HIST 276	The History of Philadelphia	3.0
MATH 181	Mathematical Analysis I	3.0
MATH 182	Mathematical Analysis II	3.0
MATH 183	Mathematical Analysis III	3.0
MUSC 130	Introduction to Music	3.0
PHYS 151	Applied Physics	3.0
PSY 101	General Psychology I	3.0
PSY 320 [WI]	Educational Psychology	3.0
PSY 330	Cognitive Psychology	3.0
SOC 335	Sociology of Education I	3.0
UNIV T101	The Drexel Experience	2.0
English elective course between 200-329		3.0
Nutrition elective [*]		3.0
Pedagogy Requirements		
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	3.0
EDUC 120	Child Development I: Typical Development	3.0
EDUC 121	Child Development II: Atypical Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 236	Early Literacy I	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 265	Instructing English Language Learners	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 307	Assessment of Young Children II	4.0
EDUC 314	Science Teaching Methods	3.0
EDUC 317	Math Methods and Content: Early Childhood	3.0
EDUC 318	Math Methods & Content	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 326 [WI]	Language Arts Processes	3.0
EDUC 335	Engaging the Learner	3.0
EDUC 336	Early Literacy II	3.0
EDUC 338	Expressive Arts for PK-4	3.0
EDUC 355	Social Studies Teaching Methods	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 411	Family and Community Partnerships	3.0
Special Education Core Courses		
EDUC 347	Special Education Processes	4.5
EDUC 348	Emotional & Behavioral Support	4.5
EDUC 349	High Incident Disabilities	4.5
EDUC 350	Low Incident Disabilities	4.5
EDUC 351	Pervasive Developmental Disorders	4.5
EDUC 352	Integrating Technology for Learning & Achievement	4.5
EDUC 353	Special Education: Methods & Practices	4.5
Student Teaching Experience		
EDUC 410	Student Teaching	9.0
EDUC 414	Special Education: Field Placement Seminar	9.0
Total Credits		188.0

* NFS 101 is the recommended Nutrition elective.

Elementary PK-4 and Special Education Concentration: Plan of Study

4 YR UG Co-op Concentration

Term 1		Credits
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 120	Child Development I: Typical Development	3.0
ENGL 101	Expository Writing and Reading	3.0
MATH 181	Mathematical Analysis I	3.0
PSY 101	General Psychology I	3.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**17.0**
Term 2		
BIO 100	Applied Cells, Genetics & Physiology	3.0
COM 111	Principles of Communication	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 121	Child Development II: Atypical Development	3.0
ENGL 102	Persuasive Writing and Reading	3.0
MATH 182	Mathematical Analysis II	3.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**17.0**
Term 3		
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 314	Science Teaching Methods	3.0
ENGL 103	Analytical Writing and Reading	3.0
MATH 183	Mathematical Analysis III	3.0
NFS 101	Introduction to Nutrition & Food	3.0
	Term Credits	**17.5**
Term 4		
BIO 101	Applied Biological Diversity, Ecology & Evolution	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 236	Early Literacy I	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
	Term Credits	**11.5**
Term 5		
EDUC 265	Instructing English Language Learners	3.0
EDUC 317	Math Methods and Content: Early Childhood	3.0

EDUC 326 [WI]	Language Arts Processes	3.0
HIST 276	The History of Philadelphia	3.0
PHYS 151	Applied Physics	3.0
ENGL 200 Through ENGL 399		3.0
	Term Credits	**18.0**
Term 6		
ECON 201	Principles of Microeconomics	4.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 347	Special Education Processes	4.5
	Term Credits	**16.0**
Term 7		
CHEM 111	General Chemistry I	4.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 338	Expressive Arts for PK-4	3.0
EDUC 353	Special Education: Methods & Practices	4.5
PSY 320 [WI]	Educational Psychology	3.0
	Term Credits	**18.5**
Term 8		
EDUC 307	Assessment of Young Children II	4.0
EDUC 318	Math Methods & Content	3.0
EDUC 335	Engaging the Learner	3.0
EDUC 348	Emotional & Behavioral Support	4.5
EDUC 355	Social Studies Teaching Methods	3.0
ENVS 260	Environmental Science and Society I	3.0
	Term Credits	**20.5**
Term 9		
EDUC 336	Early Literacy II	3.0
EDUC 349	High Incident Disabilities	4.5
EDUC 351	Pervasive Developmental Disorders	4.5
	Term Credits	**12.0**
Term 10		
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 410	Student Teaching	9.0
EDUC 411	Family and Community Partnerships	3.0
	Term Credits	**13.0**
Term 11		
EDUC 352	Integrating Technology for Learning & Achievement	4.5
EDUC 414	Special Education: Field Placement Seminar	9.0
	Term Credits	**13.5**
Term 12		
EDUC 350	Low Incident Disabilities	4.5
MUSC 130	Introduction to Music	3.0
PSY 330	Cognitive Psychology	3.0
SOC 335	Sociology of Education I	3.0
	Term Credits	**13.5**

Total Credit: 188.0

Elementary Education: Middle Level Math and English

About the Concentration

Bachelor of Science Degree: 180.5 quarter credits

This certification option within the BS in Elementary Education (p. 3) enables to teachers to work with students in grades 4-6 across subjects, and with students in grades 7-8 in the core academic subjects of mathematics and English.

This program addresses the complexities of adolescent development, through discussion of theories. It explores the middle school environment, developmentally appropriate middle school programs, strategies for supporting students through the transition to middle school, and the impact of peer pressure on the middle school child.

In addition, this certification area provides: (1) training in how to effectively deliver standards-based academic math content, based on age-appropriate understanding, individual and groups needs; (2) courses devoted to teaching age-appropriate reading skills, how to teach and assess writing effectively, as well as a specialized course in the genre of young adult fiction.

Additional Information

For more information about the program, visit the School of Education (http://goodwin.drexel.edu/soe) website.

Degree Requirements

General Education/Content Requirements

ARTH 101	History of Art I: Ancient to Medieval	3.0
BIO 161	General Biology I	3.0
BIO 162	General Biology II	3.0
CHEM 111	General Chemistry I	4.0
COM 111	Principles of Communication	3.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
ENGL 304	Young Adult Fiction	3.0
ENVS 260	Environmental Science and Society I	3.0
HIST 276	The History of Philadelphia	3.0
LING 101	Introduction to Linguistics	3.0
MATH 181	Mathematical Analysis I	3.0
MATH 182	Mathematical Analysis II	3.0
MATH 183	Mathematical Analysis III	3.0
MUSC 130	Introduction to Music	3.0
PHYS 151	Applied Physics	3.0
PSY 101	General Psychology I	3.0
PSY 320 [WI]	Educational Psychology	3.0
PSY 330	Cognitive Psychology	3.0
SOC 335	Sociology of Education I	3.0
UNIV T101	The Drexel Experience	2.0
Select one of the following:		3.0

HIST 201	United States History to 1815	
HIST 202	United States History, 1815-1900	
HIST 203	United States History since 1900	
Nutrition elective *		3.0
Free elective **		3.0
Pedagogy Requirements		
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	3.0
EDUC 115	Reasoning about Numbers and Quantity (4-8)	3.0
EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 240	Proportional Reasoning in Middle School	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 256	Teaching Writing Grades 4-8	3.0
EDUC 257	Content Area Reading (Grades 4-8)	3.0
EDUC 265	Instructing English Language Learners	3.0
EDUC 285	Teaching Physical Science in the Middle School	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 307	Assessment of Young Children II	4.0
EDUC 310	Computer Applications in Teaching	3.0
EDUC 314	Science Teaching Methods	3.0
EDUC 318	Math Methods & Content	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 326 [WI]	Language Arts Processes	3.0
EDUC 328	Language Arts Processes 4-8	3.0
EDUC 355	Social Studies Teaching Methods	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 416	Introduction to Math Teaching Methods (4-8)	3.0
EDUC 417	Advanced Math Teaching Methods (4-8)	3.0
EDUC 432	Algebraic Reasoning	3.0
EDUC 433	Functions in Middle School Math	3.0
Student Teaching Experience		
EDUC 410	Student Teaching	9.0
Total Credits		180.5

* NFS 101 is the recommended Nutrition elective.

** Students wishing to receive PA Teacher Certification upon graduation in the area of Elementary Education should take EDUC 475 Conflict Resolution and Prevention School Violence as an elective.

Middle Level Math and English: Plan of Study

4 YR UG Co-op Concentration /Middle Level Math & English

Term 1		Credits
BIO 161	General Biology I	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 123	Adolescent Development	3.0
ENGL 101	Expository Writing and Reading	3.0
MATH 181	Mathematical Analysis I	3.0
	Term Credits	**16.0**
Term 2		
COM 111	Principles of Communication	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 115	Reasoning about Numbers and Quantity (4-8)	3.0
ENGL 102	Persuasive Writing and Reading	3.0
MATH 182	Mathematical Analysis II	3.0
UNIV T101	The Drexel Experience	2.0
	Term Credits	**15.0**
Term 3		
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
ENGL 103	Analytical Writing and Reading	3.0
LING 101	Introduction to Linguistics	3.0
MATH 183	Mathematical Analysis III	3.0
EDUC 314	Science Teaching Methods	3.0
	Term Credits	**17.5**
Term 4		
BIO 162	General Biology II	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
PSY 101	General Psychology I	3.0
	Term Credits	**14.5**
Term 5		
EDUC 240	Proportional Reasoning in Middle School	3.0
EDUC 265	Instructing English Language Learners	3.0
EDUC 328	Language Arts Processes 4-8	3.0
HIST 276	The History of Philadelphia	3.0
PHYS 151	Applied Physics	3.0
	Term Credits	**15.0**
Term 6		
ECON 201	Principles of Microeconomics	4.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 257	Content Area Reading (Grades 4-8)	3.0
ENGL 304	Young Adult Fiction	3.0
	Term Credits	**17.5**

Term 7

CHEM 111	General Chemistry I	4.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
PSY 320 [WI]	Educational Psychology	3.0
SOC 335	Sociology of Education I	3.0
	Term Credits	**17.0**

Term 8

EDUC 256	Teaching Writing Grades 4-8	3.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 355	Social Studies Teaching Methods	3.0
ENVS 260	Environmental Science and Society I	3.0
EDUC 318	Math Methods & Content	3.0
	Term Credits	**15.0**

Term 9

EDUC 307	Assessment of Young Children II	4.0
EDUC 310	Computer Applications in Teaching	3.0
EDUC 326 [WI]	Language Arts Processes	3.0
EDUC 416	Introduction to Math Teaching Methods (4-8)	3.0
EDUC 432	Algebraic Reasoning	3.0
	Term Credits	**16.0**

Term 10

EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 417	Advanced Math Teaching Methods (4-8)	3.0
EDUC 433	Functions in Middle School Math	3.0
MUSC 130	Introduction to Music	3.0
PSY 330	Cognitive Psychology	3.0
	Term Credits	**13.0**

Term 11

EDUC 410	Student Teaching	9.0
Free Elective		3.0
	Term Credits	**12.0**

Term 12

ARTH 101	History of Art I: Ancient to Medieval	3.0
NFS 101	Introduction to Nutrition & Food	3.0
Select one of the following:		3.0
HIST 201	United States History to 1815	
HIST 202	United States History, 1815-1900	
HIST 203	United States History since 1900	
Free Elective		3.0
	Term Credits	**12.0**

Total Credit: 180.5

Elementary Education: Middle Level Science and English

About the Concentration

Bachelor of Science Degree: 180.5 quarter credits

This certification option within the BS in Elementary Education (p. 3) enables to teachers to work with students in grades 4-6 across subjects, and with students in grades 7-8 in the core academic subjects of science and English.

This program addresses the complexities of adolescent development, through discussion of theories. It explores the middle school environment, developmentally appropriate middle school programs, strategies for supporting students through the transition to middle school, and the impact of peer pressure on the middle school child.

In addition, this certification area provides: (1) training and methodology for teaching physical and life sciences (including using an inquiry-based model of learning, developing authentic assessments, drawing upon a variety of tools, creating and maintaining a safe laboratory) as well as other skills necessary to meet the needs of diverse learners in science education; (2) courses devoted to teaching age-appropriate reading skills, how to teach and assess writing effectively, as well as a specialized course in the genre of young adult fiction.

Additional Information

For more information about the program, visit the School of Education (http://goodwin.drexel.edu/soe) website.

Degree Requirements

General Education/Content Requirements

ARTH 101	History of Art I: Ancient to Medieval	3.0
BIO 161	General Biology I	3.0
BIO 162	General Biology II	3.0
CHEM 111	General Chemistry I	4.0
COM 111	Principles of Communication	3.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
ENGL 304	Young Adult Fiction	3.0
ENVS 260	Environmental Science and Society I	3.0
HIST 276	The History of Philadelphia	3.0
LING 101	Introduction to Linguistics	3.0
MATH 181	Mathematical Analysis I	3.0
MATH 182	Mathematical Analysis II	3.0
MATH 183	Mathematical Analysis III	3.0
MUSC 130	Introduction to Music	3.0
PHYS 151	Applied Physics	3.0
PSY 101	General Psychology I	3.0
PSY 320 [WI]	Educational Psychology	3.0
PSY 330	Cognitive Psychology	3.0
SOC 335	Sociology of Education I	3.0
UNIV T101	The Drexel Experience	2.0
Select one of the following:		3.0
HIST 201	United States History to 1815	
HIST 202	United States History, 1815-1900	
HIST 203	United States History since 1900	
Nutrition elective [*]		3.0
Free electives [**]		9.0

Pedagogy Requirements

EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	3.0
EDUC 115	Reasoning about Numbers and Quantity (4-8)	3.0
EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 240	Proportional Reasoning in Middle School	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 265	Instructing English Language Learners	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 307	Assessment of Young Children II	4.0
EDUC 310	Computer Applications in Teaching	3.0
EDUC 314	Science Teaching Methods	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
EDUC 318	Math Methods & Content	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 326 [WI]	Language Arts Processes	3.0
EDUC 328	Language Arts Processes 4-8	3.0
EDUC 355	Social Studies Teaching Methods	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 416	Introduction to Math Teaching Methods (4-8)	3.0
EDUC 417	Advanced Math Teaching Methods (4-8)	3.0
EDUC 432	Algebraic Reasoning	3.0
EDUC 433	Functions in Middle School Math	3.0
Student Teaching Experience		
EDUC 410	Student Teaching	9.0
Total Credits		180.5

*   NFS 101 is the recommended Nutrition elective.

**   Students wishing to receive PA Teacher Certification upon graduation in the area of Elementary Education should take EDUC 475 Conflict Resolution and Prevention School Violence as an elective.

Middle Level Science and English: Plan of Study

4 YR UG Co-op Concentration

Term 1		Credits
BIO 161	General Biology I	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 123	Adolescent Development	3.0
ENGL 101	Expository Writing and Reading	3.0
MATH 181	Mathematical Analysis I	3.0
UNIV T101	The Drexel Experience	1.0
Term Credits		**17.0**
Term 2		
COM 111	Principles of Communication	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
ENGL 102	Persuasive Writing and Reading	3.0
MATH 182	Mathematical Analysis II	3.0
MUSC 130	Introduction to Music	3.0
UNIV T101	The Drexel Experience	2.0
Term Credits		**15.0**
Term 3		
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 314	Science Teaching Methods	3.0
ENGL 103	Analytical Writing and Reading	3.0
LING 101	Introduction to Linguistics	3.0
MATH 183	Mathematical Analysis III	3.0
Term Credits		**17.5**
Term 4		
BIO 162	General Biology II	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
HIST 276	The History of Philadelphia	3.0
PSY 101	General Psychology I	3.0
Term Credits		**17.5**
Term 5		
EDUC 265	Instructing English Language Learners	3.0
EDUC 284	Teaching Life Science in the Middle School	3.0
EDUC 285	Teaching Physical Science in the Middle School	3.0
EDUC 328	Language Arts Processes 4-8	3.0
PHYS 151	Applied Physics	3.0
Term Credits		**15.0**
Term 6		
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 257	Content Area Reading (Grades 4-8)	3.0
ENGL 304	Young Adult Fiction	3.0
Term Credits		**13.5**
Term 7		
CHEM 111	General Chemistry I	4.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
PSY 320 [WI]	Educational Psychology	3.0
SOC 335	Sociology of Education I	3.0
Term Credits		**17.0**
Term 8		
EDUC 256	Teaching Writing Grades 4-8	3.0
EDUC 306	Assessment of Young Children I	3.0

EDUC 318	Math Methods & Content	3.0
EDUC 355	Social Studies Teaching Methods	3.0
ENVS 260	Environmental Science and Society I	3.0
	Term Credits	**15.0**
Term 9		
EDUC 286	Teaching Earth & Space Science for Middle School	3.0
EDUC 307	Assessment of Young Children II	4.0
EDUC 310	Computer Applications in Teaching	3.0
EDUC 328	Language Arts Processes 4-8	3.0
Free Elective		3.0
	Term Credits	**16.0**
Term 10		
ECON 201	Principles of Microeconomics	4.0
EDUC 292	Science Methods for Middle School	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
PSY 330	Cognitive Psychology	3.0
Free Elective		3.0
	Term Credits	**14.0**
Term 11		
EDUC 410	Student Teaching	9.0
Free Elective		3.0
	Term Credits	**12.0**
Term 12		
ARTH 101	History of Art I: Ancient to Medieval	3.0
NFS 101	Introduction to Nutrition & Food	3.0
Select one of the following:		3.0
HIST 201	United States History to 1815	
HIST 202	United States History, 1815-1900	
HIST 203	United States History since 1900	
Free Elective		3.0
	Term Credits	**12.0**

Total Credit: 181.5

Elementary Education: Middle Level Science and Math

About the Concentration

Bachelor of Science Degree: 180.5 quarter credits

This certification option within the BS in Elementary Education (p. 3) enables to teachers to work with students in grades 4-6 across subjects, and with students in grades 7-8 in the core academic subjects of science and mathematics.

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In addition, this certification area provides: (1) training in how to effectively deliver standards-based academic math content, based on age-appropriate understanding, individual and groups needs; (2) training and methodology for teaching physical and life sciences (including using an

inquiry-based model of learning, developing authentic assessments, drawing upon a variety of tools, creating and maintaining a safe laboratory) as well as other skills necessary to meet the needs of diverse learners in science education.

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ARTH 101	History of Art I: Ancient to Medieval	3.0
BIO 161	General Biology I	3.0
BIO 162	General Biology II	3.0
CHEM 111	General Chemistry I	4.0
COM 111	Principles of Communication	3.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
ENVS 260	Environmental Science and Society I	3.0
HIST 276	The History of Philadelphia	3.0
MATH 181	Mathematical Analysis I	3.0
MATH 182	Mathematical Analysis II	3.0
MATH 183	Mathematical Analysis III	3.0
MUSC 130	Introduction to Music	3.0
PHYS 151	Applied Physics	3.0
PSY 101	General Psychology I	3.0
PSY 320 [WI]	Educational Psychology	3.0
PSY 330	Cognitive Psychology	3.0
SOC 335	Sociology of Education I	3.0
UNIV T101	The Drexel Experience	2.0
Select one of the following:		3.0
HIST 201	United States History to 1815	
HIST 202	United States History, 1815-1900	
HIST 203	United States History since 1900	
Nutrition elective [*]		3.0
Free electives [**]		9.0
Pedagogy Requirements		
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	3.0
EDUC 115	Reasoning about Numbers and Quantity (4-8)	3.0
EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 240	Proportional Reasoning in Middle School	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
EDUC 246	Literacy and Content Skill Development	4.5

EDUC 265	Instructing English Language Learners	3.0
EDUC 284	Teaching Life Science in the Middle School	3.0
EDUC 285	Teaching Physical Science in the Middle School	3.0
EDUC 286	Teaching Earth & Space Science for Middle School	3.0
EDUC 292	Science Methods for Middle School	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 307	Assessment of Young Children II	4.0
EDUC 310	Computer Applications in Teaching	3.0
EDUC 314	Science Teaching Methods	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
EDUC 318	Math Methods & Content	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 355	Social Studies Teaching Methods	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 416	Introduction to Math Teaching Methods (4-8)	3.0
EDUC 417	Advanced Math Teaching Methods (4-8)	3.0
EDUC 432	Algebraic Reasoning	3.0
EDUC 433	Functions in Middle School Math	3.0
Student Teaching Experience		
EDUC 410	Student Teaching	9.0
Total Credits		180.5

* NFS 101 is the recommended Nutrition elective.

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Middle Level Science and Math Concentration: Plan of Study

4 YR UG Co-op Concentration

Term 1

		Credits
BIO 161	General Biology I	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 123	Adolescent Development	3.0
ENGL 101	Expository Writing and Reading	3.0
MATH 181	Mathematical Analysis I	3.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**17.0**

Term 2

COM 111	Principles of Communication	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
ENGL 102	Persuasive Writing and Reading	3.0
MATH 182	Mathematical Analysis II	3.0
MUSC 130	Introduction to Music	3.0
UNIV T101	The Drexel Experience	2.0
	Term Credits	**15.0**

Term 3

EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 115	Reasoning about Numbers and Quantity (4-8)	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 314	Science Teaching Methods	3.0
ENGL 103	Analytical Writing and Reading	3.0
MATH 183	Mathematical Analysis III	3.0
	Term Credits	**17.5**

Term 4

BIO 162	General Biology II	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
HIST 276	The History of Philadelphia	3.0
	Term Credits	**14.5**

Term 5

EDUC 240	Proportional Reasoning in Middle School	3.0
EDUC 265	Instructing English Language Learners	3.0
EDUC 284	Teaching Life Science in the Middle School	3.0
EDUC 285	Teaching Physical Science in the Middle School	3.0
PHYS 151	Applied Physics	3.0
	Term Credits	**15.0**

Term 6

ECON 201	Principles of Microeconomics	4.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 246	Literacy and Content Skill Development	4.5
PSY 101	General Psychology I	3.0
Free Elective		3.0
	Term Credits	**17.5**

Term 7

CHEM 111	General Chemistry I	4.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
PSY 320 [WI]	Educational Psychology	3.0
SOC 335	Sociology of Education I	3.0
	Term Credits	**17.0**

Term 8

EDUC 306	Assessment of Young Children I	3.0
EDUC 318	Math Methods & Content	3.0
EDUC 355	Social Studies Teaching Methods	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
ENVS 260	Environmental Science and Society I	3.0
	Term Credits	**15.0**

Term 9

EDUC 286	Teaching Earth & Space Science for Middle School	3.0
EDUC 307	Assessment of Young Children II	4.0
EDUC 310	Computer Applications in Teaching	3.0
EDUC 416	Introduction to Math Teaching Methods (4-8)	3.0
EDUC 432	Algebraic Reasoning	3.0
	Term Credits	**16.0**

Term 10

EDUC 292	Science Methods for Middle School	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 417	Advanced Math Teaching Methods (4-8)	3.0
EDUC 433	Functions in Middle School Math	3.0
PSY 330	Cognitive Psychology	3.0
	Term Credits	**13.0**
Term 11		
EDUC 410	Student Teaching	9.0
Free Elective		3.0
	Term Credits	**12.0**
Term 12		
ARTH 101	History of Art I: Ancient to Medieval	3.0
NFS 101	Introduction to Nutrition & Food	3.0
Select one of the following:		3.0
HIST 201	United States History to 1815	
HIST 202	United States History, 1815-1900	
HIST 203	United States History since 1900	
Free Electives		3.0
	Term Credits	**12.0**

Total Credit: 181.5

BS in Teacher Education

About the Program

Bachelor of Science Degree 180.0-191.5. credits

The Bachelor of Science in Teacher Education program uses university-wide resources to prepare fully qualified teachers at the secondary education levels in various subjects of certification. The program applies the microcomputer in teaching and learning, and it is the only such program in the country to incorporate a six-month paid internship in industry related to the student's area of certification (for example, a prospective chemistry teacher might co-op at a chemical company).

Students pursuing the appropriate majors in the College of Arts and Sciences may also complete the requirements for certification within their area of study.

The BS in Teacher Education, is focused on secondary education, and provides graduates with the background to work with students in grades 7-12* in a specific subject area. Students may work with their academic advisor to satisfy teacher certification requirements for multiple areas if desired. Available certification areas include:

- Biology (p. 13)
- Chemistry (p. 14)
- Earth & Space Science (http://catalog.drexel.edu/undergraduate/schoolofeducation/teachereducation/earthandspacescience)
- Environmental Education (p. 16)*
- English (p. 18)
- General Science (p. 20)
- Mathematics (p. 21)
- Physics (p. 23)
- Social Studies (p. 24)

* Environmental Education is grades K-12 certification area.

The program requires that students have a B average (3.0 GPA) in content courses needed for teacher certification in addition to the grade of B or better in each EDUC course throughout their time in the program. These requirements must be satisfied in order for Drexel to recommend the student for teacher certification upon graduation and/or be considered to have completed the program.

A benchmark to assist students in meeting the GPA and B grade requirements is the formal review of each student's content and pedagogy coursework at the end of the sophomore year. Students who meet these requirements, as well as pass the *Pre-Professional Skills Test* (PPST Reading, PPST Writing, PPST Mathematics) of the *ETS Praxis Exams* according to Pennsylvania standards at that time, are officially accepted into Drexel's Teacher Preparation Program. Students who do not meet the requirements work with their academic advisor to develop a plan of action to work toward meeting the requirements, continue in the program to work toward the BS degree without being recommended for a teaching certificate, or explore another major.

Students participate in classroom observations and limited direct teaching experiences as a component of many of their pedagogy courses beginning in their freshman year.

In the senior year, students who are officially accepted into the Teacher Preparation Program and maintain the GPA and grade requirements, enroll and complete the 12-week, full-time, student-teaching experience () in their primary area of certification. Students must receive a grade of at least B in (and if applicable) and in all pedagogy (EDUC) coursework, as well as maintain an overall 3.0 GPA to be recommended for teacher certification.

Students who were not officially accepted into the Teacher Preparation Program and/or do not maintain the GPA and grade requirements but who are working towards the BS degree without being recommended for teacher certification take other courses as assigned by the Teacher Education Program Director and/or academic advisor to fulfill needed credits for the degree in lieu of student teaching.

Students pursuing the appropriate majors in the College of Arts and Sciences may also complete the requirements for certification within their area of study. For more information, contact the Program Coordinator for the School of Education at 215-895-6770.

Additional information is available at the School of Education's (http://www.drexel.edu/soe) web site.

Teacher Education: Biology

About the Biology Concentration

Bachelor of Science Degree: 183.0 quarter credits
Certification is for grades 7- 12

This certification option within the BS in Teacher Education (p. 13) emphasizes coursework in the biological sciences, including genetics, morphology and physiology, biochemistry, microbiology, and ecology. Students may also choose to pursue a second certification in chemistry and/or environmental education.

Additional Information

For more information about the program, visit the School of Education (http://goodwin.drexel.edu/soe) website.

Degree Requirements

Degree Requirements

ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
HIST 280	History of Science: Ancient to Medieval	3.0
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
MATH 123	Calculus III	4.0
PHIL 251	Ethics	3.0
PSY 101	General Psychology I	3.0
PSY 320 [WI]	Educational Psychology	3.0
UNIV T101	The Drexel Experience	2.0
English elective course betweeen 200-329		3.0
Science Requirements		
BIO 122	Cells and Genetics	4.5
BIO 124	Evolution & Organismal Diversity	4.5
BIO 126	Physiology and Ecology	4.5
BIO 201	Human Physiology I	4.0
BIO 214	Principles of Cell Biology	3.0
BIO 215 [WI]	Techniques in Cell Biology	2.5
BIO 217	Evolution	4.0
BIO 218	Principles of Molecular Biology	4.0
BIO 219 [WI]	Techniques in Molecular Biology	2.5
BIO 220	Essential Microbiology	3.0
BIO 271	Developmental Biology Laboratory	2.0
BIO 306	Biochemistry Laboratory	2.0
BIO 404	Structure and Function of Biomolecules	4.0
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
CHEM 241	Organic Chemistry I	4.0
CHEM 242	Organic Chemistry II	4.0
CHEM 244	Organic Chemistry Laboratory I	3.0
CHEM 245	Organic Chemistry Laboratory II	3.0
ENVS 230	General Ecology	3.0
ENVS 284 [WI]	Physiological and Population Ecology	3.0
PHYS 152	Introductory Physics I	4.0
PHYS 153	Introductory Physics II	4.0
Pedagogy Requirements		
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	3.0
EDUC 113	Organizational Structure of Secondary Schools	3.0
EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 205	Sophomore Pedagogy Seminar	1.0

EDUC 216	Diversity and Today's Teacher	3.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 258	Reading in the Content Areas	3.0
EDUC 265	Instructing English Language Learners	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 310	Computer Applications in Teaching	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
Student Teaching Experience		9.0
Total Credits		183.0

Biology Concentration: Plan of Study

Teacher Education: Chemistry

About the Concentration

Bachelor of Science Degree: 185.0 quarter credits
Certification is for grades 7 - 12

This certification option within the BS in Teacher Education (p. 13) emphasizes coursework in such areas as organic chemistry, physical chemistry, biochemistry, analytical chemistry, and inorganic chemistry. Students may also choose to pursue a second certification in biology.

Additional Information

For more information about the program, visit the School of Education (http://goodwin.drexel.edu/soe) website.

Degree Requirements

General Education Requirements

HIST 280	History of Science: Ancient to Medieval	3.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
MATH 123	Calculus III	4.0
PHIL 251	Ethics	3.0
PSY 101	General Psychology I	3.0
PSY 320 [WI]	Educational Psychology	3.0
UNIV T101	The Drexel Experience	2.0
English elective course between 200-329		3.0
Science Requirements		
BIO 107	Cells, Genetics & Physiology	3.0
BIO 108	Cells, Genetics and Physiology Laboratory	1.0
BIO 109	Biological Diversity, Ecology & Evolution	3.0

BIO 110	Biological Diversity, Ecology and Evolution Laboratory	1.0
BIO 306	Biochemistry Laboratory	2.0
CHEC 352	Physical Chemistry and Applications II	4.0
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
CHEM 103	General Chemistry III	5.0
CHEM 230	Quantitative Analysis	4.0
CHEM 231 [WI]	Quantitative Analysis Laboratory	2.0
CHEM 241	Organic Chemistry I	4.0
CHEM 242	Organic Chemistry II	4.0
CHEM 243	Organic Chemistry III	3.0
CHEM 244	Organic Chemistry Laboratory I	3.0
CHEM 245	Organic Chemistry Laboratory II	3.0
CHEM 253	Thermodynamics and Kinetics	4.0
CHEM 357 [WI]	Physical Chemistry Laboratory I	2.5
CHEM 420	Molecular Symmetry and Group Theory Applied Chemistry	3.0
CHEM 421	Inorganic Chemistry I	3.0
CHEM 430	Analytical Chemistry I	3.0
ENVS 401	Chemistry of the Environment	3.0
PHEV 145	Weather I: Climate and Global Change	4.0
PHYS 101	Fundamentals of Physics I	4.0
PHYS 102	Fundamentals of Physics II	4.0
PHYS 201	Fundamentals of Physics III	4.0
Pedagogy Requirements		
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 113	Organizational Structure of Secondary Schools	3.0
EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 258	Reading in the Content Areas	3.0
EDUC 265	Instructing English Language Learners	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 310	Computer Applications in Teaching	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
Student Teaching Experience		
EDUC 410	Student Teaching (Chemistry)	9.0
Total Credits		185.0

Chemistry Concentration: Plan of Study
4 YR UG Co-op Concentration

Term 1		Credits
CHEM 101	General Chemistry I	3.5
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
ENGL 101	Expository Writing and Reading	3.0
MATH 121	Calculus I	4.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**15.5**
Term 2		
CHEM 102	General Chemistry II	4.5
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 113	Organizational Structure of Secondary Schools	3.0
ENGL 102	Persuasive Writing and Reading	3.0
MATH 122	Calculus II	4.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**16.5**
Term 3		
CHEM 103	General Chemistry III	5.0
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
ENGL 103	Analytical Writing and Reading	3.0
	Term Credits	**16.5**
Term 4		
BIO 107	Cells, Genetics & Physiology	3.0
BIO 108	Cells, Genetics and Physiology Laboratory	1.0
CHEM 230	Quantitative Analysis	4.0
CHEM 231 [WI]	Quantitative Analysis Laboratory	2.0
CHEM 241	Organic Chemistry I	4.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
MATH 123	Calculus III	4.0
	Term Credits	**19.0**
Term 5		
BIO 109	Biological Diversity, Ecology & Evolution	3.0
BIO 110	Biological Diversity, Ecology and Evolution Laboratory	1.0
CHEM 242	Organic Chemistry II	4.0
CHEM 244	Organic Chemistry Laboratory I	3.0
COOP 101	Career Management and Professional Development	0.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 265	Instructing English Language Learners	3.0
	Term Credits	**17.0**
Term 6		
CHEM 243	Organic Chemistry III	3.0
CHEM 245	Organic Chemistry Laboratory II	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5

EDUC 258	Reading in the Content Areas	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
PHYS 101	Fundamentals of Physics I	4.0
	Term Credits	**18.5**
Term 7		
CHEM 420	Molecular Symmetry and Group Theory Applied Chemistry	3.0
CHEM 421	Inorganic Chemistry I	3.0
EDUC 322	Evaluation of Instruction	3.0
PHYS 102	Fundamentals of Physics II	4.0
	Term Credits	**13.0**
Term 8		
EDUC 310	Computer Applications in Teaching	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
PHEV 145	Weather I: Climate and Global Change	4.0
PHYS 201	Fundamentals of Physics III	4.0
	Term Credits	**14.0**
Term 9		
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 324	Current Research in Curriculum & Instruction	3.0
PSY 101	General Psychology I	3.0
Engligh (ENGL) course between 200-239		3.0
	Term Credits	**13.5**
Term 10		
CHEC 352	Physical Chemistry and Applications II	4.0
CHEM 251	Physical Chemistry I	3.0
CHEM 357 [WI]	Physical Chemistry Laboratory I	2.5
EDUC 216	Diversity and Today's Teacher	3.0
ENVS 401	Chemistry of the Environment	3.0
	Term Credits	**15.5**
Term 11		
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 410	Student Teaching	9.0
	Term Credits	**13.0**
Term 12		
CHEM 430	Analytical Chemistry I	3.0
HIST 280	History of Science: Ancient to Medieval	3.0
PHIL 251	Ethics	3.0
PSY 320 [WI]	Educational Psychology	3.0
	Term Credits	**12.0**

Total Credit: 184.0

Teacher Education: Environmental Education

About the Concentration

Bachelor of Science Degree: 182.0 quarter credits
Certification is for grades K - 12

This certification option within the BS in Teacher Education (p. 13) emphasizes coursework in such areas of environmental issues as biology and chemistry. Students may also choose to pursue a second certification in biology.

Additional Information

For more information about the program, visit the School of Education (http://goodwin.drexel.edu/soe) website.

Degree Requirements

General Education Requirements

ECON 201	Principles of Microeconomics	4.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
HIST 280	History of Science: Ancient to Medieval	3.0
HIST 285	Technology in Historical Perspective	3.0
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
MATH 123	Calculus III	4.0
PHIL 251	Ethics	3.0
PSY 101	General Psychology I	3.0
PSY 320 [WI]	Educational Psychology	3.0
UNIV T101	The Drexel Experience	2.0
English elective course between 200-329		3.0
Science Requirements		
BIO 122	Cells and Genetics	4.5
BIO 124	Evolution & Organismal Diversity	4.5
BIO 126	Physiology and Ecology	4.5
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
ENVS 230	General Ecology	3.0
ENVS 260	Environmental Science and Society I	3.0
ENVS 270	History of Life on Earth	4.0
ENVS 272	Physical Geology	4.0
ENVS 284 [WI]	Physiological and Population Ecology	3.0
ENVS 285	Population Ecology Laboratory	2.0
ENVS 286	Community and Ecosystem Ecology	3.0
ENVS 287	Community Ecology Laboratory	2.0
ENVS 330	Aquatic Ecology	3.0
ENVS 390	Marine Ecology	3.0
ENVS 441 [WI]	Issues in Global Change I: Seminar	2.0
PHEV 145	Weather I: Climate and Global Change	4.0
PHEV 146	Weather II: Analysis and Forecasting	4.0
PHYS 101	Fundamentals of Physics I	4.0
PHYS 102	Fundamentals of Physics II	4.0
PHYS 131	Survey of the Universe	3.0
Pedagogy Requirements		
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	3.0
EDUC 113	Organizational Structure of Secondary Schools	3.0

EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 258	Reading in the Content Areas	3.0
EDUC 265	Instructing English Language Learners	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 310	Computer Applications in Teaching	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
Student Teaching Experience		
EDUC 410	Student Teaching	9.0
Total Credits		182.0

Environmental Education Concentration: Plan of Study

4 YR UG Co-op Concentration

Term 1		Credits
BIO 122	Cells and Genetics	4.5
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
ENGL 101	Expository Writing and Reading	3.0
MATH 121	Calculus I	4.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**16.5**
Term 2		
BIO 124	Evolution & Organismal Diversity	4.5
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 113	Organizational Structure of Secondary Schools	3.0
ENGL 102	Persuasive Writing and Reading	3.0
MATH 122	Calculus II	4.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**16.5**
Term 3		
BIO 126	Physiology and Ecology	4.5
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
ENGL 103	Analytical Writing and Reading	3.0
	Term Credits	**16.0**
Term 4		

EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
ENVS 230	General Ecology	3.0
MATH 123	Calculus III	4.0
PHYS 101	Fundamentals of Physics I	4.0
	Term Credits	**16.5**
Term 5		
COOP 101	Career Management and Professional Development	0.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 265	Instructing English Language Learners	3.0
ENVS 270	History of Life on Earth	4.0
PHYS 102	Fundamentals of Physics II	4.0
PSY 101	General Psychology I	3.0
	Term Credits	**17.0**
Term 6		
CHEM 101	General Chemistry I	3.5
EDUC 258	Reading in the Content Areas	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
ENVS 284 [WI]	Physiological and Population Ecology	3.0
ENVS 286	Community and Ecosystem Ecology	3.0
	Term Credits	**13.5**
Term 7		
CHEM 102	General Chemistry II	4.5
EDUC 322	Evaluation of Instruction	3.0
ENVS 272	Physical Geology	4.0
ENVS 285	Population Ecology Laboratory	2.0
ENVS 441 [WI]	Issues in Global Change I: Seminar	2.0
	Term Credits	**15.5**
Term 8		
EDUC 310	Computer Applications in Teaching	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
HIST 285	Technology in Historical Perspective	3.0
PHEV 145	Weather I: Climate and Global Change	4.0
	Term Credits	**13.0**
Term 9		
ECON 201	Principles of Microeconomics	4.0
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 324	Current Research in Curriculum & Instruction	3.0
ENVS 287	Community Ecology Laboratory	2.0
	Term Credits	**13.5**
Term 10		
EDUC 216	Diversity and Today's Teacher	3.0
ENVS 260	Environmental Science and Society I	3.0
ENVS 390	Marine Ecology	3.0
PHEV 146	Weather II: Analysis and Forecasting	4.0
PSY 320 [WI]	Educational Psychology	3.0
	Term Credits	**16.0**
Term 11		
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 405	Senior Pedagogy Seminar	1.0

EDUC 410	Student Teaching	9.0
	Term Credits	**13.0**
Term 12		
ENVS 330	Aquatic Ecology	3.0
HIST 280	History of Science: Ancient to Medieval	3.0
PHIL 251	Ethics	3.0
PHIL 251	Ethics	3.0
PHYS 131	Survey of the Universe	3.0
	Term Credits	**15.0**

Total Credit: 182.0

Teacher Education: English

About the Concentration

Bachelor of Science: 180.5 quarter credits
Certification is for grades 7 - 12

This certification option within the BS in Teacher Education (p. 13) emphasizes coursework in areas such as American and British Literature, young adult fiction, and techniques for effectively teaching reading and writing skills. Students may also choose to pursue a second certification in any of the other certification areas.

Additional Information

For more information about the program, visit the School of Education (http://goodwin.drexel.edu/soe) website.

Degree Requirements

General Education Requirements

ARTH 101	History of Art I: Ancient to Medieval	3.0
COM 230	Techniques of Speaking	3.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
ENVS 260	Environmental Science and Society I	3.0
INFO 101	Introduction to Information Technology	3.0
LING 101	Introduction to Linguistics	3.0
MATH 181	Mathematical Analysis I	3.0
MATH 182	Mathematical Analysis II	3.0
MATH 183	Mathematical Analysis III	3.0
MUSC 130	Introduction to Music	3.0
NFS 101	Introduction to Nutrition & Food	3.0
PSY 101	General Psychology I	3.0
PSY 320 [WI]	Educational Psychology	3.0
SOC 335	Sociology of Education I	3.0
PHYS 181	Astronomy	3.0
WRIT 225 [WI]	Creative Writing	3.0
WRIT 301 [WI]	Writing Poetry	3.0
UNIV T101	The Drexel Experience	2.0
American History (HIST) course between 200-203		3.0
Elective		3.0

Science Sequence		8.0
Select one of the following:		
Chemistry Sequence		
CHEM 111	General Chemistry I	
CHEM 112	General Chemistry II	
Physics Sequence		
PHYS 103	General Physics I	
PHYS 104	General Physics II	
Electives/Minor in English		
ENGL 200 [WI]	Classical to Medieval Literature	3.0
ENGL 201	Renaissance to the Enlightenment	3.0
ENGL 204	Post-Colonial Literature II	3.0
ENGL 205 [WI]	American Literature I	3.0
ENGL 206 [WI]	American Literature II	3.0
ENGL 211 [WI]	British Literature I	3.0
ENGL 212	British Literature II	3.0
ENGL 304	Young Adult Fiction	3.0
ENGL 325	Topics in World Literature	3.0
Literature (ENGL) Elective [*]		3.0
Diversity in Literature (ENGL) Elective [**]		3.0
Pedagogy Requirements		
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	3.0
EDUC 113	Organizational Structure of Secondary Schools	3.0
EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
EDUC 258	Reading in the Content Areas	3.0
EDUC 265	Instructing English Language Learners	3.0
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 310	Computer Applications in Teaching	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
Student Teaching Experience		
EDUC 410	Student Teaching	9.0
Total Credits		171.5

[*] ENGL 335 Mythology is the recommended elective.

[**] ENGL 355 Women and Literature [WI] is the recommended elective.

English Concentration: Plan of Study

4 YR UG Co-op Concentration

Term 1		Credits
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
ENGL 101	Expository Writing and Reading	3.0
MATH 181	Mathematical Analysis I	3.0
PHYS 103 or CHEM 111	General Physics I General Chemistry I	4.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**15.0**
Term 2		
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 113	Organizational Structure of Secondary Schools	3.0
ENGL 102	Persuasive Writing and Reading	3.0
MATH 182	Mathematical Analysis II	3.0
PHYS 104 or CHEM 112	General Physics II General Chemistry II	4.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**15.0**
Term 3		
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
ENGL 103	Analytical Writing and Reading	3.0
MATH 183	Mathematical Analysis III	3.0
PSY 101	General Psychology I	3.0
	Term Credits	**17.5**
Term 4		
COM 230	Techniques of Speaking	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
INFO 101	Introduction to Information Technology	3.0
LING 101	Introduction to Linguistics	3.0
Select one of the following:		3.0
HIST 201	United States History to 1815	
HIST 202	United States History, 1815-1900	
HIST 203	United States History since 1900	
	Term Credits	**17.5**
Term 5		
COOP 101	Career Management and Professional Development	0.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 265	Instructing English Language Learners	3.0
ENGL 201	Renaissance to the Enlightenment	3.0
NFS 101	Introduction to Nutrition & Food	3.0
WRIT 301 [WI]	Writing Poetry	3.0
	Term Credits	**15.0**
Term 6		

Term 6 (cont.)		
EDUC 258	Reading in the Content Areas	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
ENGL 200 [WI]	Classical to Medieval Literature	3.0
ENGL 204	Post-Colonial Literature II	3.0
WRIT 225 [WI]	Creative Writing	3.0
	Term Credits	**13.0**
Term 7		
EDUC 322	Evaluation of Instruction	3.0
ENGL 304	Young Adult Fiction	3.0
MUSC 130	Introduction to Music	3.0
PHYS 181	Astronomy	3.0
	Term Credits	**12.0**
Term 8		
ECON 201	Principles of Microeconomics	4.0
EDUC 310	Computer Applications in Teaching	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 338	Expressive Arts for PK-4	3.0
ENGL 335	Mythology	3.0
Literature (ENGL) elective		3.0
	Term Credits	**19.0**
Term 9		
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 325	Multimedia in Instructional Design	3.0
ENGL 205 [WI]	American Literature I	3.0
ENGL 212	British Literature II	3.0
	Term Credits	**13.5**
Term 10		
ARTH 101	History of Art I: Ancient to Medieval	3.0
EDUC 216	Diversity and Today's Teacher	3.0
ENGL 211 [WI]	British Literature I	3.0
ENGL 355 [WI]	Women and Literature	3.0
PSY 320 [WI]	Educational Psychology	3.0
	Term Credits	**15.0**
Term 11		
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 410	Student Teaching	9.0
ENGL 325	Topics in World Literature	3.0
	Term Credits	**13.0**
Term 12		
ENGL 206 [WI]	American Literature II	3.0
ENVS 260	Environmental Science and Society I	3.0
SOC 335	Sociology of Education I	3.0
Diversity in Literature (ENGL) elective		3.0
Free elective		3.0
	Term Credits	**15.0**

Total Credit: 180.5

Teacher Education: General Science

About the Concentration

Bachelor of Science Degree: 181.5 quarter credits
Certification is for grades 7 - 12

This certification option within the BS in Teacher Education (p. 13) is a well-rounded program incorporating biology, chemistry, mathematics, and physics. Students may also choose to pursue a second certification in any of the other certification areas. A sample plan of study is available.

Additional Information

For more information about the program, visit the School of Education (http://goodwin.drexel.edu/soe) website.

Degree Requirements

ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
MATH 123	Calculus III	4.0
PHIL 251	Ethics	3.0
PSY 101	General Psychology I	3.0
PSY 320 [WI]	Educational Psychology	3.0
UNIV T101	The Drexel Experience	2.0
HIST 280	History of Science: Ancient to Medieval	3.0
BIO 107	Cells, Genetics & Physiology	3.0
BIO 108	Cells, Genetics and Physiology Laboratory	1.0
BIO 109	Biological Diversity, Ecology & Evolution	3.0
BIO 110	Biological Diversity, Ecology and Evolution Laboratory	1.0
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
CHEM 103	General Chemistry III	5.0
ENVS 270	History of Life on Earth	4.0
ENVS 272	Physical Geology	4.0
ENVS 284 [WI]	Physiological and Population Ecology	3.0
ENVS 285	Population Ecology Laboratory	2.0
ENVS 286	Community and Ecosystem Ecology	3.0
ENVS 390	Marine Ecology	3.0
PHEV 145	Weather I: Climate and Global Change	4.0
PHYS 101	Fundamentals of Physics I	4.0
PHYS 102	Fundamentals of Physics II	4.0
PHYS 131	Survey of the Universe	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 113	Organizational Structure of Secondary Schools	3.0
EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 258	Reading in the Content Areas	3.0
EDUC 265	Instructing English Language Learners	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 310	Computer Applications in Teaching	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 410	Student Teaching	9.0

General Science Concentration: Plan of Study

4 YR UG Co-op Concentration

Term 1		Credits
CHEM 101	General Chemistry I	3.5
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
ENGL 101	Expository Writing and Reading	3.0
MATH 121	Calculus I	4.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**15.5**
Term 2		
CHEM 102	General Chemistry II	4.5
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 113	Organizational Structure of Secondary Schools	3.0
ENGL 102	Persuasive Writing and Reading	3.0
MATH 122	Calculus II	4.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**16.5**
Term 3		
CHEM 103	General Chemistry III	5.0
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
ENGL 103	Analytical Writing and Reading	3.0
	Term Credits	**16.5**
Term 4		
BIO 107	Cells, Genetics & Physiology	3.0
BIO 108	Cells, Genetics and Physiology Laboratory	1.0
EDUC 205	Sophomore Pedagogy Seminar	1.0

EDUC 244	Inclusionary Practices for Exceptional Students	4.5
MATH 123	Calculus III	4.0
	Term Credits	**13.5**
Term 5		
BIO 109	Biological Diversity, Ecology & Evolution	3.0
BIO 110	Biological Diversity, Ecology and Evolution Laboratory	1.0
COOP 101	Career Management and Professional Development	0.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 265	Instructing English Language Learners	3.0
ENVS 270	History of Life on Earth	4.0
PHYS 101	Fundamentals of Physics I	4.0
	Term Credits	**18.0**
Term 6		
EDUC 258	Reading in the Content Areas	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
ENVS 284 [WI]	Physiological and Population Ecology	3.0
PHYS 102	Fundamentals of Physics II	4.0
PSY 101	General Psychology I	3.0
	Term Credits	**14.0**
Term 7		
EDUC 322	Evaluation of Instruction	3.0
ENVS 272	Physical Geology	4.0
ENVS 285	Population Ecology Laboratory	2.0
PHYS 131	Survey of the Universe	3.0
Free Elective		3.0
	Term Credits	**15.0**
Term 8		
EDUC 310	Computer Applications in Teaching	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
ENVS 286	Community and Ecosystem Ecology	3.0
PHEV 145	Weather I: Climate and Global Change	4.0
Free Elective		3.0
	Term Credits	**16.0**
Term 9		
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 324	Current Research in Curriculum & Instruction	3.0
HIST 280	History of Science: Ancient to Medieval	3.0
Free Elective		3.0
	Term Credits	**13.5**
Term 10		
EDUC 216	Diversity and Today's Teacher	3.0
ENVS 390	Marine Ecology	3.0
PSY 320 [WI]	Educational Psychology	3.0
Science, Technology and Human Affairs Elective (See degrees requirements list)		3.0
Free Elective		3.0
	Term Credits	**15.0**
Term 11		
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 405	Senior Pedagogy Seminar	1.0

EDUC 410	Student Teaching	9.0
	Term Credits	**13.0**
Term 12		
PHIL 251	Ethics	3.0
English (ENGL) course between 200-329		3.0
Science, Technology and Human Affairs elective (See degrees requirements list)		3.0
Free Electives		6.0
	Term Credits	**15.0**

Total Credit: 181.5

Teacher Education: Mathematics

About the Concentration

Bachelor of Science Degree: 180.5 quarter credits
Certification is for grades 7 - 12

This certification option within the BS in Teacher Education (p. 13) emphasizes coursework in such areas of mathematics as calculus, linear algebra, differential equations, probability and statistics, techniques of mathematical proof, and discrete mathematics. Students may also choose to pursue a second certification in physics or one of the other sciences.

Additional Information

For more information about the program, visit the School of Education (http://goodwin.drexel.edu/soe) website.

Degree Requirements

General Education Requirements

ECON 201	Principles of Microeconomics	4.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
HIST 280	History of Science: Ancient to Medieval	3.0
INFO 108	Foundations of Software	3.0
PHIL 251	Ethics	3.0
PSY 101	General Psychology I	3.0
PSY 320 [WI]	Educational Psychology	3.0
UNIV T101	The Drexel Experience	2.0
English elective course between 200-329		3.0
Free electives		9.0
Mathematics Requirements		
EDUC 428	Cultural and Historical Significance of Mathematics	3.0
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
MATH 123	Calculus III	4.0
MATH 200	Multivariate Calculus	4.0
MATH 201	Linear Algebra	4.0
MATH 205	Survey of Geometry	3.0
MATH 210	Differential Equations	4.0
MATH 220	Introduction to Mathematical Reasoning	3.0
MATH 221	Discrete Mathematics	3.0

MATH 311	Probability and Statistics I	4.0
MATH 312	Probability and Statistics II	4.0
MATH 331	Abstract Algebra I	4.0
Science Requirements		
BIO 107	Cells, Genetics & Physiology	3.0
BIO 108	Cells, Genetics and Physiology Laboratory	1.0
BIO 109	Biological Diversity, Ecology & Evolution	3.0
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
ENVS 260	Environmental Science and Society I	3.0
PHYS 101	Fundamentals of Physics I	4.0
PHYS 102	Fundamentals of Physics II	4.0
Pedagogy Requirements		
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	3.0
EDUC 113	Organizational Structure of Secondary Schools	3.0
EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 258	Reading in the Content Areas	3.0
EDUC 265	Instructing English Language Learners	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 310	Computer Applications in Teaching	3.0
EDUC 319	Teaching Secondary Mathematics	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
Student Teaching Experience		
EDUC 410	Student Teaching	9.0
Total Credits		180.5

Mathematics Concentration: Plan of Study

4 YR UG Co-op Concentration

Term 1		Credits
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
ENGL 101	Expository Writing and Reading	3.0
MATH 121	Calculus I	4.0
PSY 101	General Psychology I	3.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**15.0**
Term 2		
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 113	Organizational Structure of Secondary Schools	3.0
ENGL 102	Persuasive Writing and Reading	3.0
INFO 108	Foundations of Software	3.0
MATH 122	Calculus II	4.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**15.0**
Term 3		
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
ENGL 103	Analytical Writing and Reading	3.0
MATH 123	Calculus III	4.0
	Term Credits	**15.5**
Term 4		
BIO 107	Cells, Genetics & Physiology	3.0
BIO 108	Cells, Genetics and Physiology Laboratory	1.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
MATH 200	Multivariate Calculus	4.0
	Term Credits	**13.5**
Term 5		
BIO 109	Biological Diversity, Ecology & Evolution	3.0
CHEM 101	General Chemistry I	3.5
COOP 101	Career Management and Professional Development	0.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 265	Instructing English Language Learners	3.0
MATH 221	Discrete Mathematics	3.0
	Term Credits	**15.5**
Term 6		
EDUC 258	Reading in the Content Areas	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
MATH 210	Differential Equations	4.0
MATH 311	Probability and Statistics I	4.0
PHYS 101	Fundamentals of Physics I	4.0
	Term Credits	**16.0**
Term 7		
EDUC 322	Evaluation of Instruction	3.0
EDUC 428	Cultural and Historical Significance of Mathematics	3.0
MATH 220	Introduction to Mathematical Reasoning	3.0
MATH 312	Probability and Statistics II	4.0
PHYS 102	Fundamentals of Physics II	4.0
	Term Credits	**17.0**
Term 8		
CHEM 102	General Chemistry II	4.5
EDUC 310	Computer Applications in Teaching	3.0
EDUC 319	Teaching Secondary Mathematics	3.0
HIST 280	History of Science: Ancient to Medieval	3.0
Free Elective		3.0
	Term Credits	**16.5**
Term 9		

ECON 201	Principles of Microeconomics	4.0
EDUC 246	Literacy and Content Skill Development	4.5
MATH 201	Linear Algebra	4.0
MATH 205	Survey of Geometry	3.0
	Term Credits	**15.5**
Term 10		
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
MATH 331	Abstract Algebra I	4.0
PSY 320 [WI]	Educational Psychology	3.0
Free Elective		3.0
	Term Credits	**16.0**
Term 11		
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 410	Student Teaching	9.0
	Term Credits	**13.0**
Term 12		
ENVS 260	Environmental Science and Society I	3.0
PHIL 251	Ethics	3.0
English (ENGL) course between 200-329		3.0
Free Elective		3.0
	Term Credits	**12.0**

Total Credit: 180.5

Teacher Education: Physics

About the Concentration

Bachelor of Science Degree: 180.5 quarter credits
Certification is for grades 7- 12

This certification option within the BS in Teacher Education (p. 13) emphasizes coursework in physics and atmospheric science, including such topics as classical mechanics, electromagnetic fields, quantum mechanics, and physics of high fidelity, and survey of the universe. Students may also choose to pursue a second certification in mathematics.

Additional Information

For more information about the program, visit the School of Education (http://goodwin.drexel.edu/soe) website.

Degree Requirements

General Education Requirements

ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
HIST 280	History of Science: Ancient to Medieval	3.0
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
MATH 123	Calculus III	4.0
MATH 200	Multivariate Calculus	4.0
MATH 201	Linear Algebra	4.0
MATH 210	Differential Equations	4.0
PHIL 251	Ethics	3.0
PSY 101	General Psychology I	3.0
PSY 320 [WI]	Educational Psychology	3.0
UNIV T101	The Drexel Experience	2.0
English elective course between 200-329		3.0
Free Elective		3.0

Science Requirements

BIO 107	Cells, Genetics & Physiology	3.0
BIO 108	Cells, Genetics and Physiology Laboratory	1.0
BIO 109	Biological Diversity, Ecology & Evolution	3.0
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
ENVS 260	Environmental Science and Society I	3.0
PHEV 141 [WI]	Atmospheric Science I: Climate and Global Change	3.0
PHYS 113	Contemporary Physics I	5.0
PHYS 114	Contemporary Physics II	5.0
PHYS 115	Contemporary Physics III	5.0
PHYS 131	Survey of the Universe	3.0
PHYS 201	Fundamentals of Physics III	4.0
PHYS 217	Thermodynamics	4.0
PHYS 311	Classical Mechanics I	4.0
PHYS 312	Classical Mechanics II	4.0
PHYS 321	Electromagnetic Fields I	4.0
PHYS 326	Quantum Mechanics I	4.0

Pedagogy Requirements

EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	3.0
EDUC 113	Organizational Structure of Secondary Schools	3.0
EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 258	Reading in the Content Areas	3.0
EDUC 265	Instructing English Language Learners	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 310	Computer Applications in Teaching	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 405	Senior Pedagogy Seminar	1.0

Student Teaching Experience

EDUC 410	Student Teaching	9.0
Total Credits		180.5

Physics Concentration: Plan of Study

4Yr UG Co-op Concentration

Term 1		Credits
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
ENGL 101	Expository Writing and Reading	3.0
MATH 121	Calculus I	4.0
PHYS 113	Contemporary Physics I	5.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**17.0**

Term 2		
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 113	Organizational Structure of Secondary Schools	3.0
ENGL 102	Persuasive Writing and Reading	3.0
MATH 122	Calculus II	4.0
PHYS 114	Contemporary Physics II	5.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**17.0**

Term 3		
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
ENGL 103	Analytical Writing and Reading	3.0
PHYS 115	Contemporary Physics III	5.0
	Term Credits	**16.5**

Term 4		
BIO 107	Cells, Genetics & Physiology	3.0
BIO 108	Cells, Genetics and Physiology Laboratory	1.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
MATH 123	Calculus III	4.0
	Term Credits	**13.5**

Term 5		
BIO 109	Biological Diversity, Ecology & Evolution	3.0
CHEM 101	General Chemistry I	3.5
COOP 101	Career Management and Professional Development	0.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 265	Instructing English Language Learners	3.0
MATH 200	Multivariate Calculus	4.0
	Term Credits	**16.5**

Term 6		
EDUC 258	Reading in the Content Areas	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
MATH 201	Linear Algebra	4.0
PHYS 217	Thermodynamics	4.0
PHYS 311	Classical Mechanics I	4.0
	Term Credits	**16.0**

Term 7		
CHEM 102	General Chemistry II	4.5
EDUC 322	Evaluation of Instruction	3.0
MATH 210	Differential Equations	4.0
PHYS 131	Survey of the Universe	3.0
PHYS 312	Classical Mechanics II	4.0
	Term Credits	**18.5**

Term 8		
EDUC 310	Computer Applications in Teaching	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
HIST 280	History of Science: Ancient to Medieval	3.0
PHEV 141 [WI]	Atmospheric Science I: Climate and Global Change	3.0
	Term Credits	**12.0**

Term 9		
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 324	Current Research in Curriculum & Instruction	3.0
PSY 101	General Psychology I	3.0
English (ENGL) course between 200-329		3.0
	Term Credits	**13.5**

Term 10		
EDUC 216	Diversity and Today's Teacher	3.0
PHYS 201	Fundamentals of Physics III	4.0
PHYS 321	Electromagnetic Fields I	4.0
PHYS 326	Quantum Mechanics I	4.0
	Term Credits	**15.0**

Term 11		
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 410	Student Teaching	9.0
	Term Credits	**13.0**

Term 12		
ENVS 260	Environmental Science and Society I	3.0
PHIL 251	Ethics	3.0
PSY 320 [WI]	Educational Psychology	3.0
Free elective		3.0
	Term Credits	**12.0**

Total Credit: 180.5

Teacher Education: Social Studies

About the Concentration

Bachelor of Science: 184.0 quarter credits
(Certification is for grades 7 - 12)

This certification option within the BS in Teacher Education (p. 13) is designed to prepare students to teach social studies using appropriate pedagogy strategies. Topics include history, geography, civics, economics and psychology.

Additional Information

For more information about the program, visit the School of Education (http://goodwin.drexel.edu/soe) website.

Degree Requirements

General Education and Concentration Content Requirements

ANTH 101	Introduction to Cultural Diversity	3.0
ANTH 110	Human Past: Anthropology and Prehistoric Archeology	3.0
ECON 201	Principles of Microeconomics	4.0
ECON 202	Principles of Macroeconomics	4.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
ENGL 205 [WI]	American Literature I	3.0
HIST 161	Themes in World Civilization I	3.0
HIST 162	Themes in World Civilization II	3.0
HIST 163	Themes in World Civilization III	3.0
HIST 201	United States History to 1815	3.0
HIST 202	United States History, 1815-1900	3.0
HIST 203	United States History since 1900	3.0
HIST 212	Themes in African-American History	3.0
HIST 216	Freedom in America	3.0
HIST 222	History of Work & Workers in America	3.0
HIST 224	Women in American History	3.0
HIST 276	The History of Philadelphia	3.0
HIST 285	Technology in Historical Perspective	3.0
MATH 181	Mathematical Analysis I	3.0
MATH 182	Mathematical Analysis II	3.0
MATH 183	Mathematical Analysis III	3.0
PSCI 110	American Government I	4.0
PSCI 140	Introduction to Comparative Political Analysis	4.0
PSCI 150	International Politics	4.0
PSCI 220	Constitutional Law I	3.0
PSCI 363	Constitutional Law II	3.0
PSCI 364	Constitutional Law III	3.0
PSCI 375	Politics of Immigration	3.0
PSY 101	General Psychology I	3.0
PSY 150	Introduction to Social Psychology	3.0
PSY 320 [WI]	Educational Psychology	3.0
SOC 101	Introduction to Sociology	3.0
SOC 210	Race and Ethnic Relations	3.0
SOC 335	Sociology of Education I	3.0
UNIV T101	The Drexel Experience	2.0

Pedagogy Requirements

EDGE 210	Geography Education	3.0
EDGE 211	Geography Education: Teacher Laboratory	1.5
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	3.0
EDUC 113	Organizational Structure of Secondary Schools	3.0
EDUC 123	Adolescent Development	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 258	Reading in the Content Areas	3.0
EDUC 265	Instructing English Language Learners	3.0
EDUC 305	Junior Pedagogy Seminar	1.0
EDUC 310	Computer Applications in Teaching	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 356	Secondary Social Studies Methods	3.0
EDUC 405	Senior Pedagogy Seminar	1.0

Student Teaching Experience

EDUC 410	Student Teaching	9.0
Total Credits		184.0

Social Studies Concentration: Plan of Study

4 YR UG Co-op Concentration

Term 1		Credits
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
ENGL 101	Expository Writing and Reading	3.0
HIST 161	Themes in World Civilization I	3.0
MATH 181	Mathematical Analysis I	3.0
PSY 101	General Psychology I	3.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**17.0**
Term 2		
HIST 162	Themes in World Civilization II	3.0
ANTH 101	Introduction to Cultural Diversity	3.0
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 123	Adolescent Development	3.0
ENGL 102	Persuasive Writing and Reading	3.0
MATH 182	Mathematical Analysis II	3.0
UNIV T101	The Drexel Experience	1.0
	Term Credits	**17.0**
Term 3		
ANTH 110	Human Past: Anthropology and Prehistoric Archeology	3.0
COOP 101	Career Management and Professional Development	0.0
EDUC 105	Freshman Pedagogy Seminar	1.0
EDUC 113	Organizational Structure of Secondary Schools	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
ENGL 103	Analytical Writing and Reading	3.0
MATH 183	Mathematical Analysis III	3.0
	Term Credits	**17.5**

Term 4

SOC 101	Introduction to Sociology	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 223	Teaching the Middle School Child	3.0
EDUC 244	Inclusionary Practices for Exceptional Students	4.5
EDUC 265	Instructing English Language Learners	3.0
	Term Credits	**14.5**

Term 5

ENGL 205 [WI]	American Literature I	3.0
HIST 276	The History of Philadelphia	3.0
HIST 201	United States History to 1815	3.0
PSCI 110	American Government I	4.0
SOC 210	Race and Ethnic Relations	3.0
	Term Credits	**16.0**

Term 6

ECON 201	Principles of Microeconomics	4.0
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 258	Reading in the Content Areas	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 356	Secondary Social Studies Methods	3.0
	Term Credits	**17.5**

Term 7

EDUC 322	Evaluation of Instruction	3.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 325	Multimedia in Instructional Design	3.0
EDUC 310	Computer Applications in Teaching	3.0
	Term Credits	**12.0**

Term 8

HIST 163	Themes in World Civilization III	3.0
SOC 335	Sociology of Education I	3.0
EDGE 210	Geography Education	3.0
EDGE 211	Geography Education: Teacher Laboratory	1.5
EDUC 305	Junior Pedagogy Seminar	1.0
PSCI 150	International Politics	4.0
	Term Credits	**15.5**

Term 9

HIST 202	United States History, 1815-1900	3.0
HIST 222	History of Work & Workers in America	3.0
HIST 285	Technology in Historical Perspective	3.0
PSCI 140	Introduction to Comparative Political Analysis	4.0
PSY 320 [WI]	Educational Psychology	3.0
	Term Credits	**16.0**

Term 10

PSCI 220	Constitutional Law I	3.0
PSCI 363	Constitutional Law II	3.0
PSY 150	Introduction to Social Psychology	3.0
HIST 203	United States History since 1900	3.0
HIST 216	Freedom in America	3.0
	Term Credits	**15.0**

Term 11

EDUC 410	Student Teaching	9.0

PSCI 364	Constitutional Law III	3.0
	Term Credits	**12.0**

Term 12

ECON 202	Principles of Macroeconomics	4.0
EDUC 405	Senior Pedagogy Seminar	1.0
HIST 212	Themes in African-American History	3.0
HIST 224	Women in American History	3.0
PSCI 375	Politics of Immigration	3.0
	Term Credits	**14.0**

Total Credit: 184.0

Minor in Education

The minor in Education provides a structured academic opportunity for students who wish to add a fundamental understanding of the field of education as well as practical knowledge in the art and science of teaching and learning to their undergraduate experience.

Designed for students with a strong interest in education and training, the minor will not necessarily lead to the student being recommended for a state teaching certificate. However, should a student decide to also pursue a teaching certificate as a component of his or her major— or in post-baccalaureate work— the courses required for the minor are applicable to Pennsylvania State certification.

Required Courses

EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 142	Special Education Foundations: Referral and Assessment	4.5
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 246	Literacy and Content Skill Development	4.5
EDUC 321	Non-Field Experience Professional Studies in Instruction	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 325	Multimedia in Instructional Design	3.0
Total Credits		27.0

Master of Science in Education Improvement and Transformation

About the Program

Master of Science: 45.0 quarter credits

One of the great challenges of our time is the improvement of the American education system from pre-school through retirement. Once the envy of the world, there are cracks in the education crucible which must be repaired or reforged. The system has endured social, intellectual, and economic challenges beyond its capacity to respond in a way that provides a sound foundation for all Americans, while keeping our country safe and competitive for the future.

The MS in Education Improvement and Transformation is designed to prepare professional educators—as well as other professionals whose career interests lie in leading significant change in education—in the process of initiating transformative (reform) in formal and informal education sectors.

The program is comprised of "stackable" certificates (p. 49), each focusing on specific topics pertaining to the improvement and transformation of education. (The certificates are also referred to as "professional development concentrations," and are made up of nine credits of courses.) After students complete four of these areas of study, reaching 36.0 credits, they finish the program with two courses that jointly form a capstone project to provide a real-life, hands-on experience in being an agent for change in tranformative education.

Students not wishing to complete entirely of the 45.0 required credits for the Master of Science program may opt to leave with the graduate-level certificate(s) earned in Education Improvement and Transformation.

Correspondingly, students completing the 45.0 credits for the MS degree may not use those credits to be awarded certificates in the program.

Additional Information

For additional information, visit Drexel University's Master of Science Program's in Education (http://goodwin.drexel.edu/soe/academic_grad.php) page.

Degree Requirements

The Master of Science in Education Transformation is comprised of 14 courses. The core of the program is made up of four "Professional Development Concentrations" in strategic education improvement areas and topics.

These concentrations are listed under the Certificate Programs in Education and Transformation (https://nextcatalog.drexel.edu/graduate/schoolofeducation/educationimprovementcert), and include areas such as assessment, strategic partnership, change leadership, educational policy, disabilities, virtual schools, charter schooling, home schooling, community engagement & development, urban education, school boards, and financing education. Additional concentrations may be developed on a topical needs or special population-based basis.

The final two courses of the program consist of a 4.5 credit Evaluation & Assessment courses and a 4.5 credit Capstone Project. The Capstone Project is an individualized course.

Degree Requirements

Students complete four areas of professional development concentration. These 9.0 credit concentrations correspond to certificates offered in the Education and Improvement and Transformation program. View those certificate programs for a list of courses.		36.0

Project/Capstone Requirements

EIT 715	EIT Evaluation, Assessment and Capstone Preparation	4.5
EDUC 799	Independent Study in Teacher Preparation (EIT Capstone Project)	4.5
Total Credits		45.0

Master of Science in Educational Administration

About the Program

Master of Science: 45.0 quarter credits

The MS in Educational Administration is designed to prepare and mentor future leaders using state and national leadership standards with the practical skills, knowledge, and internship experiences to become effective leaders in rural, urban, and suburban schools. The vision of the program is to create a collaborative and mentoring community of school leaders who contribute to a "research of practice" that significantly improves learning for all students.

Using state and national leadership standards, this master's degree is designed to prepare and mentor future elementary and secondary educational leaders with the practical skills, knowledge and internship experiences to become effective leaders in rural, city and suburban schools. This program is ideal for prospective students holding a teaching or counseling certificate who wish to advance into school administration with principal certification.

The program is designed as a part-time cohort model, and can be completed in two years. View the degree requirements (http://www.drexel.edu/catalog/masters/edu-admin.htm) for more detailed information about the courses.

Program Objectives

Graduates of the MS in Educational Administration will be prepared to:

- Meet Pennsylvania certification standards
- Facilitate the development, articulation, implementation, and stewardship of a school/district vision of learning that is shared and supported by the school community
- Advocate, nurture, and sustain a school culture and instructional program conducive to student learning and staff professional growth
- Ensure management of the organization, operations,and resources for a safe, efficient, and effective learning environment
- Collaborate with families and community members,responding to diverse community interests and needs,and mobilizing community resources
- Act with integrity, fairness, and in an ethical manner
- Understand, respond to, and influence the larger political, social, economic, legal, and cultural context

- Monitor and evaluate students' achievements and programs on challenging standards for external and internal accountability goals
- Build teacher leadership capacity and mentor principal interns
- Conduct and share action research that documents sustainability in meeting school accountability goals and has practical, immediate, and useful application for other educators

For additional information, visit the School of Education's MS in Educational Administration (http://goodwin.drexel.edu/soe/academic_grad_ea.php) web page or the Drexel e-Learning (http://www.drexel.com/Fields_of_Study/education/masters/eduadministration/index.shtml)'s web site.

Admission Requirements

Acceptance for graduate study in Drexel University's School of Education requires:

- Bachelor's degree from a regionally accredited institution.
- Undergraduate GPA of 3.0 or higher (graduate degree GPAs will be considered along with the undergraduate GPA).
- Complete graduate school application.
- Official transcripts from *all universities or colleges and other post-secondary educational institutions (including trade schools)* attended. Instead of hard copy transcripts, you may supply official electronic transcripts issued by a post-secondary institution directly to Drexel University Online (use our email address, customerservice@drexel.com). You must supply transcripts regardless of the number of credits earned or the type of school you attended. If you do not list all post-secondary institutions on your application and these are listed on transcripts received from other institutions, processing of your application will be delayed until you have submitted the remaining transcripts. Click here to use the Transcript Lookup Tool to assist you in contacting your previous institutions. If a college or university that you attended offers the option to send transcripts in a secure, password-protected electronic format, you may have the transcript sent to customerservice@drexel.com.
- Two letters of recommendation, either professional or academic.
  - Drexel University Online now accepts electronic letters of recommendation. Please access the following webpage for instructions regarding their submission: http://www.drexel.edu/apply/recommend. If a recommender prefers to submit an original, hard copy letter of recommendation, please remind the recommender that it must be signed and submitted in a sealed envelope signed across the flap by the recommender.
  - One letter of recommendation must come from the principal of the school where the applicant has worked. (Recommendation must include applicant's presentation skills and experiences in leadership roles help in a K-12 school setting as well as the skills observed that would have a strong bearing on the applicant's success as a school leader and administrator.)
- An essay describing why the applicant is interested in pursuing graduate study in this field.
  - Applicant must include two paragraphs briefly describing their educational philosophy and explaining how principals shape learning in K-12 schools.

- International Students: must submit a TOEFL score of 550 or higher. Students with transcripts from non-US institutions should have such transcripts evaluated by World Education Service (WES). The TOEFL examination is required for some non-citizens.

Degree Requirements

Core Certification Courses

EDUC 702	School Leadership & Decision Making	3.0
EDUC 705	School Law and Politics	3.0
EDUC 708	Integration of Technology with School Instruction and Management	3.0
EDUC 710	School Finance and Facilities	3.0
EDUC 712	School and Community Partnerships and Relations	3.0
EDUC 714	Instructional and Curriculum Leadership	3.0
EDUC 715	School Principal Internship: Technology	1.5
EDUC 716	School Principal Internship: Finance	1.5
EDUC 717	School Principal Internship: Leadership	1.5
EDUC 718	School Principal Internship: School and Community Relations	1.5
Core Master's Degree Courses		
EDAM 500	Leading in Urban, Rural and Suburban Settings	3.0
EDAM 502	Resource Management, Allocation and Entrepreneurship	3.0
EDAM 522	Evaluation & Assessment Competencies	3.0
EDAM 524	Mentoring and Collaborative Leadership	3.0
EDAM 526	Interpreting & Evaluating Research & Achievement Data	3.0
EDAM 528	Research Methodology for Action Research	3.0
EDAM 540	Action Research Project	3.0
Total Credits		45.0

Performances

The performances for meeting Pennsylvania leadership standards and National Leadership Standards include a Leadership Portfolio. The Leadership Portfolio includes:

- Four Log Reflections -- explaining growth in log reflection over each term
- Evidence of 600 hours across four terms logged in the Internship
- Logs over 48 weeks
- Four term Goal Statements and Reflections on accomplishments
- Two to three artifacts on each of the ELCC standards totaling 14 to 21 or more artifacts
- An explanation of how each artifact shows applications of skill on each identified standard
- Four evaluations on the ELCC Standards and Drexel Competencies completed by the school site supervising principal

In addition, students must have a passing score on 580 on the Pennsylvania PRAXIS, Administrative Ed. Leadership (0410).

Doctor of Education in Educational Leadership and Management

About the Program

Doctor of Education (EdD): 60.0 quarter credits
The Doctor of Education degree in Educational Leadership and Management is designed to prepare future leaders with the necessary skills and experience for senior administration and management positions within higher education and educational administration.

Students can specialize in Educational Administration (Superintendent Certification) or Higher Education. Regardless of chosen concentration, the program focuses equally on the understanding and critical analysis of both practice and theory.

Mission

The mission of the EdD program in Educational Leadership and Management is to prepare graduates with the foremost education and business skills related to administration, management, finance, and strategic planning to successfully lead public school districts, universities and colleges, national foundations and organizations, corporations, and government agencies. The EdD program will prepare graduates for leadership roles in improving educational practice and applying management skills to the field of education.

About the Curriculum

The EdD program incorporates an interdisciplinary approach into the curriculum through the collaborative partnership between the School of Education, Lebow College of Business, and the Goodwin College of Professional Studies. The EdD program integrates education and business practices, skills, knowledge and theory into the curriculum, courses and instructional strategies. Students engaged in best practices, current research, and innovations in technology for enhanced instruction.

Recognizing that all practice has a theoretical dimension and all theory springs from questions identified through practice, the students in the EdD program will critically examine their own practices and the practices of their colleagues from a variety of theoretical perspectives.

The program is offered through a blended delivery system combining both on-campus classes and online education. All on-campus courses have an online component.

For additional information about this program, visit the School of Education's Graduate (http://goodwin.drexel.edu/soe/academic_grad_elm.php) site.

Admission Requirements

Application Requirements for New Applicants

For details regarding the items below please review the Admission Application Checklist (http://www.drexel.edu/grad/apply/checklist). *(Please note that international students may not apply to this program.)*

- *Transcripts* from all colleges and universities attended verifying completion of a master's degree in education or an appropriate field and undergraduate degree in an appropriate major

- *Résumé* indicating at least 3 years of work experience relevant to applicant's professional goals
- *Three letters of recommendation:* Use the Electronic Letter of Recommendation (https://deptapp.drexel.edu/em/LOR) form to submit recommendation letters
- *Essay*: Discuss professional goals and aspirations, including how current skills, along with advanced study of educational leadership, will be of support in the attainment of those goals.
- *Writing sample*: Submit a 5- to 30-page writing sample that demonstrates writing abilities and potential success in the program. Examples include, but are not limited to, a journal article, a paper written for a class, or a manual or technical report.
- *Interview*: at the discretion of the application review team.

Supplemental Application Materials for New Applicants
To make your application more competitive, applicants are encouraged to submit two (2) or more of the following items:

- Detailed statement describing sustained Leadership Activities
- Detailed statement describing significant Creative Activities/Products
- Detailed statement describing significant Research Activities/ Publications
- GRE or MAT scores

Additional information about how to apply is available on the Graduate Admissions at Drexel University (http://www.drexel.edu/grad/programs/edu/apply/requirements) website.

Degree Requirements

Students in the EdD program are required to complete core courses including education courses and MBA courses. Students complete courses within their areas of specialization prior to completing required research courses. At that point, students begin the dissertation phase of the EdD program.

EdD Candidacy Requirements

In summary, the sequence of events leading to the EdD candidacy include the following:

- All courses must be passed with a grade of B or better.
- In the fifth quarter, the comprehensive exam must be passed.
- In the ninth quarter, the dissertation proposal must be approved by committee (proposal hearings; filing of the D4 and 4A forms upon approval. At this point students have completed 54 of the 60 credits required in the program.)
- In terms 10-12, students register for Dissertation. As per the current policy, students pay one credit of tuition but register for multiple credits. A minimum of two credits are needed in the twelfth quarter to accrue the needed 60 credits.

Required Courses

Core Courses

BUSN 501	Measuring and Maximizing Financial Performance	3.0
BUSN 502	Essentials of Economics	3.0
EDUC 800	Educational Leadership & Change	3.0
EDUC 802	Using and Integrating Learning Technologies	3.0
EDUC 804	Program Evaluation in Organizations	3.0

ORGB 625	Leadership and Professional Development	3.0
Concentration Course Options (See Below)		15.0-18.0
Research Courses		
EDUC 803	Educational Research Design I	3.0
EDUC 810	Educational Research Design II	3.0
EDUC 815	Writing for Research, Publication and Funding in Education	3.0
EDUC 818	Applied Research Study	3.0
EDUC 835	Quantitative Research Methods and Data Analysis	4.0
EDUC 836	Qualitative Research Methods and Data Analysis	4.0
EDUC 880	Doctoral Seminar	1.0
EdD Candidacy Courses		
EDUC 998	PhD Dissertation	6.0
Total Credits		60.0

Concentration Course Options

Students and their advisors craft a program concentration that is most appropriate for their needs and background. Concentration availability may depend on campus location as well as other factors. Students should work closely with their advisors at the School of Education.

There are two sets of concentration courses for Higher Education depending on whether or not students are already entering the program with a background in higher education.

Higher Education [*]

EDHE 500	Foundations of Higher Education	3.0
EDHE 510	Governance, Management & Administration in Higher Education	3.0
EDHE 669	Diversity in Higher Education	3.0
EDGI 506	Comparative Higher Education Systems	3.0
EDUC 705	School Law and Politics	3.0
Total Credits		15.0

[*] For students entering the program without previous formal study in Higher Education.

Higher Education Concentration (alternative) [**]

EDAE 601	Foundations of Adult Education	3.0
EDHE 634	Proposal Writing & Sponsored Project Management	3.0
EDHE 640	Foundations of Institutional Research	3.0
EDHE 646	Survey Tools, Statistical Software & Effective Reporting	3.0
EDHE 664	Strategies for Educational Success	3.0
Total Credits		15.0

Educational Administration (Pennsylvania Superintendent Certification) [**]

EDEX 712	Instructional & Curriculum Leadership in Special Education	3.0
EDUC 817	Curriculum Models	3.0
EDUC 820	School Superintendency	3.0
EDUC 824	Parents and Schools	3.0
EDUC 827	School Superintendent's Internship: Curriculum Models	1.0
EDUC 828	School Superintendent's Internship:: Parents and Schools	1.0
EDUC 829	School Superintendent's Internship III	1.0
EDUC 830	School Superintendent's Internship IV	1.0
Total Credits		16.0

[**] For students entering the program with a strong background in Higher Education who are looking for an extension of their previous studies.

Athletic Administration Concentration

SMT 601	Sports Industry Management	3.0
SMT 602	Sport Law & Risk Management	3.0
SMT 606	Contemporary Issues in Sport	3.0
SMT 612	Development & Fundraising Strategies in Sport	3.0
SMT 635	Sport Facilities & Event Management	3.0
Total Credits		15.0

Human Resource Development Concentration

EHRD 500	Foundations of Human Resources Development [*]	3.0
EHRD 601	Leading and Evaluating Change	3.0
EHRD 602	Coaching and Mentoring for Sustainable Learning	3.0
EHRD 604	Development of Human Resources	3.0
EHRD 606	Human and Organizational Performance	3.0
Total Credits		15.0

[*] Students with an MS in Human Resource Development are not required to take EHRD 500.

Educational Policy Concentration

EDPO 620	Education Policy: Concepts, Issues, and Applications	3.0
EDPO 624	Shaping of American Education Policy: Global Forces	3.0
EDPO 628	American Educational Policy and U.S. Competitiveness	3.0
EDPO 632	Ethics in Educational Policy Making	3.0
EDPO 636	Access & Equity in Educational Policy Making	3.0
Total Credits		15.0

PhD in Educational Leadership Development and Learning Technologies

About the Program

Doctor of Philosophy: 60.0 quarter credits (beyond the master's degree requirements)

The PhD program in Educational Leadership Development and Learning Technologies is designed for those who aspire to be education researchers, university faculty or research analysts. The program is designed so that students will have the skills, knowledge and experience to be leaders and stewards of the field.

Graduates of this program will develop research and critical thinking abilities directed toward the creation of new knowledge, integration and original application and/or teaching of existing knowledge and scholarly inquiry in their field of study.

Vision

The PhD program in Educational Leadership Development and Learning Technologies is designed for those who aspire to be education researchers, university faculty or research analysts. The program is designed so that students will have the skills, knowledge and experience to be leaders and stewards of the field. Graduates from this program will develop research and critical thinking abilities directed toward the creation of new knowledge, integration and original application and/or teaching of existing knowledge and scholarly inquiry in their field of study.

Applicants to this program are expected to have high aptitude for research and inquiry in the field of education. They will express career interest in topics into which the faculty of the School are actively inquiring and researching. The assumption is that the most effective training for the PhD stems from collaborative research and inquiry into topics of mutual interest by an able student and faculty scholars and researchers. The major emphasis of the program consists of the individual students and faculty members(s) jointly researching and inquiring into an area of study to conduct scholarly research.

Mission

The emphasis of the program is philosophical underpinning and theory-driven research. In addition to study in educational leadership, policy and the foundation of education, the program requires extensive preparation in quantitative and qualitative research methods. A small cohort of students will be admitted for full-time study. Students will be immersed in an internship to scholarly life, learning to teach and conducting research with faculty while completing coursework and other program requirements. These three areas will combine to:

- convey deep scholarly knowledge of education and related areas outside of education,
- promote a broad understanding of various methods of inquiry in education and develop competency in several of those methods,
- impart broad knowledge of theory and practice, and
- promote excellence as a college teacher.

Cohort and Delivery Format

This program will be limited to a cohort of full-time students for whom full funding is available and who will be fully embraced as members of the School of Education. The program will be delivered on-campus and will be situated in the framework of collaborative, transformational learning and knowledge generation. Small seminars, independent projects and practicum opportunities are designed for an individualized program.

For additional information about this program, visit the School of Education's Graduate (http://goodwin.drexel.edu/soe/academic_doc.php) site.

Admission Requirements

The School of Education is committed to fostering the value of diversity of ideas. We aim to cultivate a graduate student body that reflects the diversity of the nation and the world. We want to develop a community of researchers who will investigate education from a variety of perspectives, and whole work will substantively contribute to the field. Admission criteria are designed to recruit students with the academic preparation, capacity, commonality of research interests with the faculty and motivation to become effective scholars; who will demonstrate the ability to contribute to their field and publish in peer-reviewed journals, present research in a professional conference and demonstrate effective teaching skills.

A statement describing their future goals and how this program addresses their needs should be submitted. Early application is recommended; please refer to the current information available from the Office of Graduate Admissions for the application deadline (http://www.drexel.edu/em/apply/edu/requirements.html).

Application Materials Required:

1. Graduate school application (http://www.drexel.edu/em/grad/apply).
2. Student must have a minimum GPA of 3.25 to 3.5 (on a 4.0 scale) a minimum Graduate Record Examination (http://www.ets.org/portal/site/ets/menuitem.fab2360b1645a1de9b3a0779f1751509/?vgnextoid=b195e3b5f64f4010VgnVCM10000022f95190RCRD) score of 600 on each of the sub-tests (Verbal and Quantitative) and 6.0 on the Analytical. The GRE report must be sent directly to the Office of Graduate Admissions (http://www.drexel.edu/em/grad).
3. Resume or curriculum vitae.
4. A statement of career goals, including specific research and scholarly interests. If possible, students should indicate how their interests coincide with those of particular School of Education faculty members. A list of current faculty research interests is available on the School of Education website.)
5. Three letters of reference from people familiar with prior academic performance.
6. Copies of students' scholarly writing, including published papers and theses or term papers. 7. The School of Education admissions committee will review each application and an interview will be required. The School of Education admissions committee makes a recommendation to the School of Education Director. This process generally takes between six and eight weeks.

Additional information about how to apply is available on the Graduate Admissions at Drexel University (http://www.drexel.edu/grad/programs/edu/apply/requirements) site.

Degree Requirements

Research/Inquiry

Research preparation is the foundation of the PhD program. Students begin research activities during the first year of the program, and continue to develop their skills by conducting various research projects with School of Education faculty, presenting research findings at conferences and writing research papers, culminating with the dissertation work. Thus, the program is designed to immerse the student in educational content, inquiry and methodology, so as to ask critical questions and design procedures to conduct research.

Course of Study

The program of study is designed to provide a breadth and length of experience that will enable students to be immersed in a culture of scholarship and learning. There is mutual enrichment and learning from

internships with faculty as students engage in teaching and research under faculty supervision and are guided in coursework. The total minimum credits for the degree is 60 graduate credits beyond a master's degree.

The curriculum has five components:

1. Leadership Core (18 Credits)
2. Research Core (17 Credits)
3. Problem-based research (9 Credits)
4. Technology Core (6 Credits)
5. Dissertation research (10 Credits minimum

Degree Requirements

Leadership Core

EDUC 800	Educational Leadership & Change	3.0
EDUC 801	Creative Strategies For Educational Leaders	3.0
EDUC 804	Program Evaluation in Organizations	3.0
EDUC 806	Linking Educational Theory to Research	3.0
EDUC 807	Multi- & Cross-Cultural Perspectives in Leadership	3.0
EDUC 813	Educational Issues Seminar	3.0
Research Core		
EDUC 803	Educational Research Design I	3.0
EDUC 810	Educational Research Design II	3.0
EDUC 815	Writing for Research, Publication and Funding in Education	3.0
EDUC 835	Quantitative Research Methods and Data Analysis	4.0
EDUC 836	Qualitative Research Methods and Data Analysis	4.0
Problem-Based Research (Independent Study)		
EDUC 799	Independent Study in Teacher Preparation	3.0
EDUC 799	Independent Study in Teacher Preparation	3.0
EDUC 799	Independent Study in Teacher Preparation	3.0
Technology Core		
EDUC 802	Using and Integrating Learning Technologies	3.0
EDUC 811	Designing and Developing Multimedia Applications For Learning	3.0
Required Doctoral Seminar and Dissertation		10.0
EDUC 818	Applied Research Study	
EDUC 880	Doctoral Seminar [*]	
EDUC 998	PhD Dissertation [*]	
Possible Electives		
EDUC 512	Focus on World Geography	
PSY 530	Principles of Neuroscience	
Total Credits		60.0

Master of Science in Global and International Education

About the Program

Master of Science: 45.0 quarter credits

The MS in Global and International Education is designed to prepare students with the skills and knowledge necessary to work effectively within the complex economic, political, cultural, and social contexts that influence education and learning in diverse parts of the world. In addition to being aware of the global trends and issues of diverse approaches to education, students will develop the attitudes necessary to support learners and learning within and beyond mainstream educational systems.

The program prepares students to work effectively with the complex global challenges, trends, and issues influencing education and learning in diverse parts of the world, including the United States.

Today, leaders are needed who are trained with the skills and practical knowledge required to work effectively within the context of global economic, political, cultural, and community influences on education; are aware of global trends and issues in the field of education; recognize the various dimensions of educational interventions and are able to analyze the implications for learners within and beyond mainstreams; and can critique the roles and approaches of international, comparative, and educational research. The MS in Global and International Education will provide these necessary tools, experiences, understandings, and related attitudes.

Program Objectives

The mission of the Master of Science in Global and International Education is to prepare students with the skills, knowledge, and attitudes necessary to work effectively with the complex economic, political, cultural, and social contexts that influence education and learning in diverse parts of the world. In addition to being aware of global trends and issues of diverse approaches to education, students will develop the attitudes necessary to support learners and learning within and beyond mainstream educational systems.

Graduates of this program will be qualified to pursue careers in higher education, ESL programs, education abroad, law firms, international education associations, accreditation agencies, local community international outreach centers, U.S. government, international development or human service agencies, non-governmental agencies, as well as act as administrators, managers, and researchers in national and international organizations, foundations, associations, and corporations.

Graduates of this program will lead their organizations in addressing the dramatic change in society and culture due to globalization and how these influence education.

The program is designed as a part-time cohort model, and can be completed in two years. View the degree requirements for more detailed information about the courses.

Additional Information

For more information about this program, contact the Program Manager/ Academic Advisor:

Samantha Mercanti-Anthony
School of Education
sm853@drexel.edu

For additional information, also visit the School of Education's MS in Global and International Education (http://goodwin.drexel.edu/soe/ academic_grad_gie.php) web page or the Drexel e-Learning (http:// www.drexel.com/Fields_of_Study/education/masters/globalinternational/ index.shtml)'s web site.

Admission Requirements

Admission to this program requires:

- **Bachelor's degree** from a regionally accredited institution
- An undergraduate **GPA of 3.0 or higher** (graduate degree GPAs will be considered along with the undergraduate GPA).
- **Graduates of foreign schools** must also have of 550 or higher in the Test of English as a Foreign Language (TOEFL).
- Completed **Application** Form.
- **Official transcripts** from *all universities or colleges and other post-secondary educational institutions (including trade schools)* attended. Instead of hard copy transcripts, applicants may supply official electronic transcripts issued by a post-secondary institution directly to Drexel University Online (sent to: customerservice@drexel.com).

  Applicants must supply transcripts regardless of the number of credits earned or the type of school attended. If an applicant does not list all post-secondary institutions on the application and these are listed on transcripts received from other institutions, processing of the application will be delayed until all remaining transcripts have been submitted the remaining transcripts.

  Click here to use our Transcript Lookup Tool to assist contact with previous institutions. If a college or university offers the option to send transcripts in a secure, password-protected electronic format, have the transcript sent to customerservice@drexel.com.
- **Two letters of recommendation** - professional or academic.
  - Drexel University Online now accepts electronic letters of recommendation. Please access the following webpage for instructions regarding their submission: http://www.drexel.edu/apply/recommend. If a recommender prefers to submit an original, hard copy letter of recommendation, please remind the recommender that it must be signed and submitted in a sealed envelope signed across the flap by the recommender.
- Personal **Essay**
- **Resume.**
- International Students (http://www.drexel.com/online-degrees/education-degrees/ms-global/international.aspx) must submit a TOEFL score of 550 or higher. Students with transcripts from non-US institutions should have such transcripts evaluated by World Education Service (WES). The TOEFL examination is required for some non-citizens. Applicants whose native language is English (who list themselves as born in or citizens of the following countries: American Samoa, Australia, Bahamas, Barbados, Belize, Bermuda, Botswana, British West Indies, Brunei Darussalam, Canada, England, Ghana, Guam, Ireland, Jamaica, Lesotho, Liberia, Malawi, Malta, Mauritius, New Zealand, Papua New Guinea, Puerto Rico, Scotland, Sierra Leone, South Africa, Swaziland, Tanzania, Trinidad/Tobago, Uganda, Virgin Islands, Wales, Zimbabwe) are exempt from the TOEFL. Applicants whose native language is not English are exempt from the TOEFL if the applicant completed 4 years of high school in the United States or completed English 101 and English 102 with a grade of C or better from a US domestic accredited institution. Applicants who received an undergraduate or graduate degree from an academic institution located in the U.S., UK or Canada are also excempt from the TOEFL.

Please refer to Drexel Online's Master of Science in Global & International Education Admissions (http://www.drexel.com/online-degrees/education-degrees/ms-global/admissions.aspx) page for additional information.

Degree Requirements

A Master of Science in Global and International Education is a part-time online program. Students complete six core courses, four primary concentration courses, three secondary concentration courses, an elective and a capstone course.

Core Courses

EDHE 680	Foundations of Evaluation	3.0
EDGI 500	Introduction to Global, International & Comparative Education	3.0
EDGI 504	History and Theory of Comparative Education	3.0
EDGI 510	Culture, Society & Education in Comparative Perspective	3.0
EDGI 512	Globalization and Educational Change	3.0
EDGI 520	Comparative Economics of Education	3.0

Primary Concentration Courses

EDGI 506	Comparative Higher Education Systems	3.0
EDGI 508	Understanding Research in International & Comparative Education	3.0
EDGI 514	Education and National Development	3.0
EDGI 518	Analysis of Policy Issues in Global & International Education	3.0

Capstone Requirement

EDGI 715	Co-op with Portfolio	1.5
EDGI 716	GIE Co-op Experience with Seminar	4.5

Select one of the following Secondary Concentrations:		9.0

Secondary Peace Education Concentration [*]

EDGI 530	Peace Education
EDGI 532	International Organizations in International Education
EDGI 534	Conflict Resolution in an International Context

Secondary Higher Education Concentration

Select 3 of the following Higer Education courses:	
EDHE 500	Foundations of Higher Education
EDHE 510	Governance, Management & Administration in Higher Education
EDHE 520	Student Development & Customer Service Management
EDUC 705	School Law and Politics

Secondary E-Learning Leadership Concentration

Select 3 of the following E-Learning Leadership courses:	
ELL 501	The Purpose and Business of E-Learning
ELL 502	E-Learning Technologies
ELL 503	Teaching and Learning Issues in E-Learning
ELL 504	Learning Technologies & Disabilities
ELL 604	Design & Delivery of E-Learning I
ELL 605	Design & Delivery of E-Learning II

Secondary Educational Policy Concentration [**]

Select 3 of the following Educational Policy courses	
EDPO 620	Education Policy: Concepts, Issues, and Applications
EDPO 624	Shaping of American Education Policy: Global Forces

EDPO 632	Ethics in Educational Policy Making	
EDPO 636	Access & Equity in Educational Policy Making	
Secondary Learning Technology Concentration		
Select 3 of the following:		
EDLT 538	New Media Literacies	
EDUC 535	Researching & Evaluating Instructional Technology	
EDLT 537	Technologies for Performance Support	
EDUC 532	Designing Virtual Communities for Staff Development - Non-Field Experience	
Sample Electives		
Students can select courses as addional electives from within the School of Education or a course (with School of Education approval) from another Drexel University program, such as international business administration, foreign languages, women's studies, or science/technology/society.		
EDGI 600	Study Abroad Experience	
EDGI 610	International Ecotourism & Education	
Total Credits		45.0

*   As an alternative secondary concentration, students may create a customized area of study from other Drexel University departments/ programs such as International Business Administration, Women's Studies, or Science/Technology/Society.

** To complete the Drexel Educational Policy Certificate, students complete 2 additional 3-credit courses: EDPO 628 and EDPO 640.

Master of Science in Higher Education

About the Program

Master of Science: 45.0 quarter credits

The MS in Higher Education is designed specifically to prepare highly skilled and knowledgeable practitioners for administrative and management careers in higher education in the United States and abroad. Graduates will be qualified to pursue careers as professionals in university and college offices as well as careers in national and international organizations, foundations, associations, and corporations.

Program Objectives
Students graduating with an MS in Higher Education will possess outstanding leadership, organizational, interpersonal and advocacy skills, including the ability to communicate effectively with internal and external groups. Students will be provided with in-depth knowledge regarding both public and private (non-profit and for-profit) institutions, as well as small and large institutions and multi-campus institutions.

About the Curriculum
The curriculum for the MS in Higher Education incorporates an interdisciplinary approach, with courses offered through the Goodwin College of Professional Studies School of Education and The LeBow College of Business. The program integrates leading learning strategies and instructional technologies into the course delivery. Courses introduce students to best practices, current research, software applications and database management systems. Students demonstrate knowledge and skills through both individual and group projects.

This program is 45 credits and consists of 14 courses: 6 core courses, 4 primary concentration courses, 3 elective courses or secondary concentration courses, and 1 capstone course (co-op with portfolio).

Primary concentration areas include:

- Administration and Organizational Management

Secondary areas of concentration include:

- Academic Development, Technology and Instruction
- Community College Administration and Leadership
- Enrollment Management
- Financial Management in Higher Education
- Institutional Advancement
- Institutional Research and Planning
- Student Development and Affairs

The program is designed as a part-time cohort model, and can be completed in two years.

Additional Information

For additional information, visit Drexel University's Higher Education, Administration and Leadership (http://goodwin.drexel.edu/eal) page.

Admission Requirements

Applicants for the program will follow the university standards for admission to graduate study. In addition, the admissions committee will evaluate the applicant's potential and commitment to succeed in graduate study in higher education and at least one of the two program delivery formats. The applicant's potential to contribute to the overall quality of the program of study will also be considered.

Prospective students are required to submit the following:

- Completed Application Form
- Transcripts (must be provided for every institution attended)
- Referrals (two letters are required)
- Personal Essay

Prospective s tudents must apply through Drexel eLearning (http://www.drexel.com) using the online application (http://www.drexel.com/Fields_of_Study/education/MSHE/apply.asp). Additional information about how to apply is available on the Graduate Admissions at Drexel University (http://www.drexel.edu/grad/programs/edu/apply/requirements) website.

Degree Requirements

This Master of Science in Higher Education program consists of 14 courses: 6 core courses, 4 primary concentration courses, 3 elective courses or secondary concentration courses, and 1 capstone course (co-op with portfolio).

Core Courses

EDHE 500	Foundations of Higher Education	3.0
EDHE 510	Governance, Management & Administration in Higher Education	3.0
EDHE 520	Student Development & Customer Service Management	3.0

EDHE 602	Managing Campus Operations	3.0
EDUC 705	School Law and Politics	3.0
EDHE 714	Introduction to Research Methods	3.0
Capstone		
EDHE 715	Higher Education Co-op I with Portfolio	1.5
EDHE 716	Higher Education Co-op II	4.5
Primary Concentration		
Students complete the four required courses for the primary concentration:		
EDHE 540	Outcomes, Assessments & Continuous Improvement	3.0
EDHE 601	Strategic Planning & Evaluation	3.0
EDHE 606	Higher Education Career Development	3.0
ORGB 631	Leading Effective Organizations	3.0
Electives or Secondary Concentration (See Below)		9.0
Students select either any three elective courses (from offerings within the School of Education) or three courses within the secondary concentrations offered. Courses within a student's primary concentration do not count as electives.		
Total Credits		45.0

Electives or Secondary Concentration

Secondary Concentration in Adult Education

Select three of the following:

EDAE 601	Foundations of Adult Education	3.0
EDAE 602	Adult Learning and Development	3.0
EDAE 603	Program Planning: Assessment & Evaluation of Adult Education	3.0
EDAE 604	Instructional Design and Delivery Strategies	3.0
EDAE 605	Instructional Skills for Teaching Adults Online	3.0

Secondary Concentration in Global and International Education

Select three of the following:

EDGI 500	Introduction to Global, International & Comparative Education	3.0
EDGI 506	Comparative Higher Education Systems	3.0
EDGI 508	Understanding Research in International & Comparative Education	3.0
EDGI 510	Culture, Society & Education in Comparative Perspective	3.0
EDGI 512	Globalization and Educational Change	3.0

Secondary Concentration in Higher Education Educational Policy

Required

EDPO 620	Education Policy: Concepts, Issues, and Applications	3.0

Select two of the following:

EDPO 624	Shaping of American Education Policy: Global Forces	3.0
EDPO 632	Ethics in Educational Policy Making [*]	3.0
EDPO 636	Access & Equity in Educational Policy Making	3.0
EDPO 640	Educational Policy-Making Tactics & Influence	3.0

Secondary Concentration in Community College Administration and Leadership

Select three of the following:

EDHE 634	Proposal Writing & Sponsored Project Management	3.0
EDHE 664	Strategies for Educational Success	3.0
EDHE 668	Transformational Leadership	3.0
EDHE 669	Diversity in Higher Education	3.0

Secondary Concentration in Institutional Development and University Relations

Select three of the following:

EDHE 610	Institutional Advancement	3.0
EDHE 614	Alumni Relations	3.0
EDHE 616	Institutional Communications, Marketing & Public Relations	3.0
AADM 650	Fund Development for the Arts	3.0

Secondary Concentration in Financial Management

Select three of the following:

BUSN 501	Measuring and Maximizing Financial Performance	3.0
EDHE 602	Managing Campus Operations	3.0
EDHE 624	Capital Financing, Business Development & Asset Management	3.0
EDHE 626	Public-Private Funding and Legal Issues	3.0

Secondary Concentration in Institutional Research

Select three of the following:

EDHE 640	Foundations of Institutional Research	3.0
EDHE 644	Student Assessments & Academic Program Evaluation	3.0
EDHE 646	Survey Tools, Statistical Software & Effective Reporting	3.0
EDHE 680	Foundations of Evaluation	3.0
EDUC 803	Educational Research Design I	3.0

Secondary Concentration in Enrollment Management

Select three of the following:

EDHE 650	Introduction to Enrollment Management	3.0
EDHE 652	Enrollment Marketing, Recruitment & Retention	3.0
EDHE 654	Financial Aid & Enrollment Management	3.0
EDHE 656	Enrollment Management Database Systems & Management	3.0

Secondary Concentration in Learning Technologies and Instructional Design

Select 3 of the following:

EDLT 536	Learning Sciences and Instructional Design	3.0
EDLT 537	Technologies for Performance Support	3.0
EDLT 550	Introduction to Instructional Design	3.0
ELL 502	E-Learning Technologies	3.0
ELL 504	Learning Technologies & Disabilities	3.0

Secondary Concentration in Student Development and Affairs

Select three of the following:

EDHE 652	Enrollment Marketing, Recruitment & Retention	3.0
EDHE 662	Critical Issues in Student Affairs	3.0
EDHE 663	Safety and Crisis Management	3.0
EDHE 664	Strategies for Educational Success	3.0
EDHE 669	Diversity in Higher Education	3.0

If students have completed EDPO 632 as part of the primary concentration, it may not be used for the secondary concentration. In this case, students must select another EDPO course from the list.

Master of Science in Human Resource Development

About the Program

Master of Science: 45.0 quarter credits

The MS in Human Resource Development, with its strong emphasis on learning theory, is designed to prepare students with the competencies for success in promoting individual and organizational learning world wide. The online curriculum is both practice-oriented and research-based. Drexel's program is unique in the inclusion of a substantial co-op experience.

Human resource development (HRD) refers to the principles, methods, and techniques for assessing and responding to the learning and organization development needs of employees and their organizations. The Master of Science in Human Resource Development prepares students to have a positive direct and indirect influence on the future of human resource development in its many forms. The program is designed to prepare graduates for strategic roles in promoting employee and organizational learning in various national and multi-national organizations, as well as to promote the use and integration of technology to support organizational learning.

The MS degree in Human Resource Development incorporates an interdisciplinary curriculum. Students may choose an area of concentration through either the School of Education or the LeBow College of Business. The program integrates leading learning strategies and instructional technologies into course delivery. Courses expose students to best practices, current research, software applications, and database management systems. Students demonstrate their knowledge and skill acquisition through individual and group projects.

For additional information, contact the School of Education (http://www.drexel.edu/soe) or view the Master's degrees online on the Drexel Online Learning (http://www.drexel.com) web site.

Admission Requirements

Applicants for the program will follow the university standards for admission to graduate study. Prospective students must have earned a bachelor's degree from an accredited institution and have an undergraduate GPA of 3.0 or higher to be considered for admission (graduate degree GPAs will be considered along with the undergraduate GPA). In addition, prospective students are required to submit the following:

- Completed Application Form including official transcripts from all universities or colleges attended
- Two letters of recommendation
- Personal essay
- Resume
- Application fee

The admissions committee will evaluate the applicant's potential and commitment to succeed in graduate study in the online environment. The applicant's potential to contribute to the overall quality of the program of study will also be considered.

Interviews, in person or by phone, will be conducted by the admissions committee with those applicants who meet Graduate Admission's standard admissions criteria.

Decisions will be made using dates corresponding to the regular university schedule for rolling admissions in Graduate Admissions.

For additional information, contact the School of Education (http://www.drexel.edu/soe) or view the Master's degrees online on the Drexel Online Learning (http://www.drexel.com) web site.

Find additional details about how to apply on the Graduate Admissions at Drexel University (http://www.drexel.edu/grad/programs/edu/apply/requirements) website.

Degree Requirements

The program requires 45.0 credit hours, consisting of 30.0 hours of core coursework and a 6.0 credit capstone course (that includes a co-op project and results in the submission of a professional portfolio). In addition, students complete one of the following 9.0 credit concentrations:

- Strategic Human Resources
- Evaluation and Return on investment (ROI)
- Instructional Systems Design (ISD) and E-Learning
- Project Management

Core Courses

EHRD 500	Foundations of Human Resources Development	3.0
EHRD 600	Organizational Consulting	3.0
EHRD 601	Leading and Evaluating Change	3.0
EHRD 602	Coaching and Mentoring for Sustainable Learning	3.0
EHRD 603	Performance Competencies	3.0
EHRD 604	Development of Human Resources	3.0
EHRD 606	Human and Organizational Performance	3.0
EDHE 660	Principles of Adult Education	3.0
EDUC 804	Program Evaluation in Organizations	3.0
EHRD 607 Global Human Resource Development [*]		3.0
Capstone Requirements		
EHRD 715	Capstone Co-op with Portfolio I	1.5
EHRD 716	Capstone Co-op with Portfolio II	4.5
Concentration Options		9.0
Students select one of the following concentrations:		
Strategic Human Resources		
ORGB 631	Leading Effective Organizations	
MGMT 640	Strategic Human Resource Management	
EHRD 605	Organizational Learning & Strategy	
Evaluation and ROI		
EDHE 682	The Evaluation Process	
EDHE 684	Evaluation and Assessment in Practice	
EHRD 608	Evaluating the Value & Impact of Human Resource Development Interventions	

ISD and E-Learning

ELL 501	The Purpose and Business of E-Learning	
ELL 502	E-Learning Technologies	
EDLT 550	Introduction to Instructional Design	
Project Management		
PROJ 501	Introduction to Project Management	
PROJ 502	Project Planning & Scheduling	
PROJ 603	Project Management Leadership	
Total Credits		45.0

* The EHRD 607 course is currently under development.

Master of Science in Learning Technologies

About the Program

Master of Science Options:

- MS degree with Instructional Technology Specialist, Game based Learning, Instructional Design, or E-Learning Leadership concentration: 45.0 quarter credits
- MS degree with Instructional Technology Specialist PA Certification (with previous teacher certification): 45.0 quarter credits.
- MS degree with Instructional Technology Specialist PA Certification (without previous teaching certification): 49.5 quarter credits

Scope of the Program

The School of Education offers an MS in Learning Technologies that prepares graduate students to meet the challenges schools, educational and corporate organizations face related to technology learning needs. Students can select an Instructional Technologies Specialist concentration, a certificate concentration that prepares for the PA Certification in Instructional Technologies Specialist, or the following concentrations:

- E-Learning Leadership
- Instructional Design
- Learning in Game-based Environments

The MS in Science and Learning Technologies program provides multiple field experiences, extensive skill development in coaching and mentoring, and a yearlong internship for hand-on experiences in various settings. Each student will develop a unique plan of study in cooperation with a School of Education academic advisor. Students are expected to maintain a continuous registration and will be encouraged to take two courses per term until completion of their program of study.

Courses are offered in an online format. The program also features occasional on-campus events and an annual conference for presentation of program participant research papers and projects, as well as invited keynote speakers, workshops and poster sessions.

Students can select concentrations in Instructional Technologies Specialist, E-Learning Leadership, Learning in Game-Based Environments, or complete a certificate concentration that prepares for the PA Certification in Instructional Technologies Specialist.

Additional Information

For additional information about this program, contact the Program Manager:

Samantha Mercanti-Anthony
Program Manager
School of Education
sm853@drexel.edu
215.895.6894

Admission Requirements

Each candidate to the MS in Science and Learning Technologies will submit the following application materials:

- Completed application form
- Appropriate application fee
- Transcripts (must be provided for every institution attended)
- Personal essay, providing commitment to program's unique features
- Professional resume

Admission to the MS in Learning Technologies program will follow the University standards for admission to graduate study including the receipt of a Bachelor's degree from an accredited college or university with an earned GPA of 3.0 on a 4.0 scale.

Undergraduates who meet the rigorous requirements for participation in an MS program also may be considered. Ideally, a successful candidate will possess a public school teaching certificate or, in the case of an undergraduate pursuing the BS /MS track, complete teacher certification requirement in conjunction with the MS degree. For additional information, contact the School of Education. (http://www.drexel.edu/soe)

Information about how to apply is available on the Graduate Admissions at Drexel University (http://www.drexel.edu/grad/programs/edu/apply/requirements) website.

Degree Requirements

Depending on their goals and interests, students completing the MS in Learning Technologies choose either the Instructional Technology Specialist concentration, the Instructional Technology Specialist PA Certification option, or the Learning in Game-Based Environments concentration.

Core Courses

EDAM 528	Research Methodology for Action Research	3.0
EDLT 536	Learning Sciences and Instructional Design	3.0
EDLT 537	Technologies for Performance Support	3.0
EDLT 538	New Media Literacies	3.0
Internship/Co-op (2 terms)		
EDLT 539	EDLT Co-op Seminar Course I	1.5
EDLT 540	EDLT Co-op Seminar Course II	4.5
Professional Electives		
Electives are selected with the approval of an advisor from within the School of Education or from other Drexel programs. *		1.5-9.0
Total Credits		19.5-27.0

Electives are selected with the approval of an advisor from within the School of Education or from other Drexel programs. The total number of credits for graduation for the MS in Learning Technologies is a minimum of 45.0.

- 1.5 credits of professional electives for students pursing the Instructional Technology Certification option without prior teaching certification
- 6.0 credits of professional electives for students pursing the Instructional Technology Certification option with prior teaching certification
- 9.0 credits of professional electives for students pursuing ITS, ELL, LGBE concentrations.

Instructional Technology Concentration

18.0 quarter credits

The Instructional Technology Specialist Concentration program is designed for students interested in specializing in the area of instructional technology while not choosing to continue to pursue the formal certification.

Core Courses

EDUC 511	Computer Skills for Teachers	3.0
or INFO 688	Instructional Role for the Information Specialist	
EDUC 532	Designing Virtual Communities for Staff Development - Non-Field Experience	3.0
EDUC 534	Developing Educational Leaders Using Technology	3.0
EDUC 535	Researching & Evaluating Instructional Technology	3.0
INFO 520	Social Context of Information Professions	3.0
INFO 640	Managing Information Organizations	3.0
Total Credits		18.0

Instructional Technology Specialist Certificate Concentration

25.5 Credits

The Instructional Technology Specialist Certificate Concentration was designed to address the dramatically increasing need in public education for certified Instructional Technology Specialists at every level of K-12 schooling.

Students pursuing the Instructional Technology Specialist PA Certification require a "B" or better in all certification coursework. Applicants for Instructional Technology Specialist Certification should ideally possess valid Pennsylvania Instructional I or II Teaching Certification. (Visit the School of Education (http://goodwin.drexel.edu/soe) for additional information.) If a student seeks the Instructional Technology Specialist PA Certification without a previous held teaching certificate, he or she will need to complete EDUC 522 and EDUC 525.

Core Courses

EDUC 533	Designing Virtual Communities	3.0
EDUC 534	Developing Educational Leaders Using Technology	3.0
EDUC 535	Researching & Evaluating Instructional Technology	3.0
EDUC 542	Fundamentals of Special Education	3.0
EDUC 544	The Inclusive Classroom	3.0
EDUC 552	Integrating Technology for Learning & Achievement	4.5
INFO 520	Social Context of Information Professions	3.0
INFO 640	Managing Information Organizations	3.0
For students without prior teaching certification		

Two additional courses are required for candidates without prior teacher certification to complete the Instructional Technology Specialist Certificate. (6 credits)

EDUC 522	Evaluation of Instruction	
EDUC 525	Multi-Media Instructional Design	
Total Credits		25.5

E-Learning Leadership Concentration

18.0 Credits

The E-Learning Leadership concentration provides an in-depth understanding of online and distance learning theories.

ELL 501	The Purpose and Business of E-Learning	3.0
ELL 502	E-Learning Technologies	3.0
ELL 503	Teaching and Learning Issues in E-Learning	3.0
ELL 504	Learning Technologies & Disabilities	3.0
ELL 604	Design & Delivery of E-Learning I	3.0
ELL 605	Design & Delivery of E-Learning II	3.0
Total Credits		18.0

Learning in Game-Based Environments Concentration

18.0 quarter credits

The Learning in Game-based Environments Concentration prepares graduates to effectively use educational games in and out of the classroom and training center, provides an overview of game development processes, enables participants to build basic games, and most importantly, examines how to assess and evaluate the learning experience as it relates to educational games.

EDLT 541	Foundations of Game-Based Learning	3.0
EDLT 542	Research in Motivation & Game-based Learning	3.0
EDLT 543	Play & Learning in a Participatory Culture	3.0
EDLT 544	Integrating Games & Pedagogical Content Knowledge	3.0
EDLT 545	Design & Development of Learning Games I	3.0
EDUC 535	Researching & Evaluating Instructional Technology	3.0
Total Credits		18.0

Instructional Design Concentration

18.0 quarter credits

This concentration is designed to prepare teachers, instructors, practitioners and others to use instructional design for K-20 education, adult education, and workplace training that addresses the needs of thee millennial learner and collaborative networked communities.

Required Courses

EDLT 550	Introduction to Instructional Design	3.0
EDLT 554	Learning with Social Media and Mobiles	3.0
EDUC 811	Designing and Developing Multimedia Applications For Learning	3.0
ELL 502	E-Learning Technologies	3.0
Select two electives from the following:		6.0
EDUC 525	Multi-Media Instructional Design	

EDUC 533	Designing Virtual Communities	
EDLT 541	Foundations of Game-Based Learning	
EDLT 543	Play & Learning in a Participatory Culture	
Total Credits		18.0

Master of Science in Mathematics Learning & Teaching

About the Program

The MS in Mathematics Learning & Teaching is designed for current middle and high school mathematics teachers. The program is designed to support teachers as they help students reason through the variety of complex mathematical situations that they encounter in their school mathematics curriculum. The program includes courses with explicit focus on the use of technology in teaching, unpacking and re-conceptualizing the mathematics of middle and high school curriculum, and implementing student centered and problem based instructional practices.

The MS in Mathematics Learning & Teaching is designed for current middle and high school mathematics teachers as well as mathematically inclined elementary teachers. The Mathematics Learning and Teaching program is designed to support teachers in teaching mathematics where students learn with understanding, including supporting students in reasoning through the variety of complex mathematical situations that they encounter in the school mathematics curriculum. In particular, the program of study involves courses that model best practices in mathematics education, including collaborative problem solving, reflection on practice, and student-centered instruction.

The mathematics education core courses are divided into two sets of courses: introductory (500-level) and advanced (600-level) courses. The introductory courses emphasize content-based and informed pedagogy, representation and communication, connections between multiple representations and multiple solution methods. The advanced courses emphasize common student conceptions, misconceptions and difficulties, diagnosing student thinking, addressing particular students' needs effectively, scaling "individualized instruction," and collaborative instructional design and analysis.

Currently, all courses in this program are offered in an online format.

For additional information about this program, contact the School of Education (http://www.drexel.edu/soe).

Admission Requirements

Each candidate will submit the following application materials:

- Completed application form
- Appropriate application fee
- Transcripts (must be provided for every institution attended)
- Personal essay, providing commitment to program's unique features
- Professional resume

Admission to the MS in Mathematics Learning & Teaching program will follow the University standards for admission to graduate study including the receipt of a Bachelor's degree from an accredited college or university with an earned GPA of 3.0 on a 4.0 scale.

The Mathematics Learning and Teaching (MLT) Program is built around the importance of the integration of research and practice and the importance of connecting school teaching practices with university coursework. As a result, there will be a fieldwork component for some courses. These courses require university students to interact with school-aged students, document their activity (ideally with video-recordings), and bring the results of their work back to the university class for collective analysis and reflection. MS and certificate students who are not current classroom teachers will need to obtain the appropriate Child Abuse and Criminal Record clearances for their state to work with school-aged students in schools during the school day. Such program candidates are also advised to talk with area school sin advance of entering one of the MLT programs to obtain the process for arranging the fieldwork components of the MLT courses.

Additional requirements for the MS in Mathematics Learning and Teaching include:

- Completion of at least two semesters (or three quarters) of university calculus and at least one university mathematics course beyond university calculus. This additional course must be offered by the mathematics department and cannot include courses on the fundamentals of mathematics, college algebra, or mathematics for elementary school teachers. Exceptions to this requirement will be considered on an individual basis by the program director or the program admissions committee.
- All students must provide evidence of a current teaching position or must secure a site for field placement and complete the Child Abuse and Criminal Record Clearance by the end of the winter term in the first year in the program.

For additional information, contact the School of Education (http://www.drexel.edu/soe). Additional information about how to apply is available on the Graduate Admissions at Drexel University (http://www.drexel.edu/grad/programs/edu/apply/requirements) website.

Degree Requirements

45.0 quarter credits

The MS in Mathematics Learning and Teaching program involves the completion of 45.0credit hours of courses and will position teachers to implement high-quality, student centered instruction. The required courses in this program fall into three categories:

- the *education core* (10 credits) provides students with a breadth of expertise in student-centered, technology-intensive instruction
- the *mathematics education core* (30 credits) involves student-centered pedagogy courses and a full year of lesson study, implementation, and analysis (in the spirit of action research). The mathematics education core concludes with a capstone research course that provides participants with an introduction to research in mathematics education, including reading and discussing seminal articles and reviewing the literature on a given topic with an emphasis on topics with personal relevance to each individual teacher.
- *elective courses* (5-6 credits) allow participants to tailor their degree experience to their interests and career paths.

Education Core Courses

EDUC 522	Evaluation of Instruction	3.0

EDUC 524	Current Research in Curriculum & Instruction	3.0
EDUC 525	Multi-Media Instructional Design	3.0
Mathematics Education Core Courses		
MTED 501	Proportional and Algebraic Reasoning	3.0
MTED 502	Geometry & Spatial Reasoning	3.0
MTED 503	Data Analysis and Probabalistic & Statistical Reasoning	3.0
MTED 511	Functions through the Curriculum	3.0
MTED 601	Diagnosing Student Mathematical Thinking	3.0
MTED 611	Virtual Field Experience I - Online Mentoring	1.5
MTED 612	Virtual Field Experience II - Online Mentoring	1.5
MTED 621	Collaborative Instructional Design & Analysis I	3.0
MTED 622	Collaborative Instructional Design & Analysis II	3.0
MTED 690	Current Research in Mathematics Learning & Teaching	3.0
One additional 600- or 700-level MTED Course		3.0
Electives [*]		6.0
Total Credits		45.0

[*] After consultation with an advisor, participants may choose electives from other graduate offerings in the School of Education (including educational technology, higher education, and global and international relations), special topics courses in mathematics education, or appropriate content courses offered by the Mathematics Department (http://www.drexel.edu/coas/math).

Master of Science in Special Education

About the Program

Master of Science: 45.0 quarter credits
The Master of Science in Special Education is intended for those interested in gaining greater skills and expertise in the area of Special Education and/or a teaching certificate in the area of special education. Candidates seeking PA special education certification must have been issued a prior PA instructional I or instruction II teaching certificate.

The Master of Science in Special Education seeks to produce professionals who are equipped with the fundamental skills, knowledge, and competencies they will need to meet the needs of students at risk for and with disabilities in multiple settings. The program is a flexible, part-time graduate program consisting of 49.5 credits: 31.5 credits in Core Special Education Certification courses, 12.0 credits in concentration courses, and 6.0 credits in research. The program culminates with each potential graduate completing an action research project and presentation within his or her area of concentration.

Available Concentrations

Autism Spectrum Disorder
Within the past decade, the number of children diagnosed with Autism or Asperger's Syndrome has increased drastically. Consequently, the need for professionals trained in this specialized area has significantly increased. This concentration is designed for those who seek additional expertise in this critical need area. It will provide knowledge and skills for

working with both students with Autism and Asperger's Syndrome as well as effective teaching methods, interventions, and supports.

Technologies for Special Education
Best practices in the education of students with disabilities requires educational professionals to be proficient with a wide range of technologies. This concentration is designed for those seeking additional expertise in the area of educational technologies and assistive technology that can be used to create accessible learning opportunities and increased outcomes for students with disabilities.

Language & Cultural Issues
The students in today's classrooms are not only diverse in the area of abilities and disabilities but also in regards to their language and cultural backgrounds. This concentration is designed for those who are seeking to work with students who are at-risk for or who have disabilities that are also from linguistically and culturally diverse backgrounds. The coursework in this concentration can be applied to PA Program Specialist - English as a Second Language (ESL) certification.

Customized Concentration
Students who already posses a special education certification or who are not interested in obtaining a special education certification but want to enhance their skills in specific special education topic areas may choose to take two of the concentrations (24 credits) and 19.5 credits of their choosing from the special education certification core in addition to completing the research courses.

Additional Information

For additional information, visit the School of Education's MS in Special Education (http://goodwin.drexel.edu/te/academic_grad_se.php) page.

Admission Requirements

Applicants for the program will follow the university standards for admission to graduate study. Prospective students must have earned a bachelor's degree from an accredited institution and have an undergraduate GPA of 3.0 or higher to be considered for admission (graduate degree GPAs will be considered along with the undergraduate GPA). In addition, prospective students are required to submit the following:

- Completed Application Form including official transcripts from all universities or colleges attended
- Two letters of recommendation
- Personal essay
- Resume
- Application fee

The admissions committee will evaluate the applicant's potential and commitment to succeed in graduate study in the online environment. The applicant's potential to contribute to the overall quality of the program of study will also be considered.
Interviews, in person or by phone, will be conducted by the admissions committee with those applicants who meet Graduate Admission's standard admissions criteria.
Decisions will be made using dates corresponding to the regular university schedule for rolling admissions in Graduate Admissions.

For more details, contact the School of Education (http://www.drexel.edu/soe) or view the Master's degrees online at Drexel Online Learning (http://www.drexel.com). Additional information about how to apply is available on the Graduate Admissions at Drexel University (http://www.drexel.edu/grad/programs/edu/apply/requirements) website.

Degree Requirements

The Master of Science in Special Education requires 49.5 credits consisting of 31.5 credits in Core Special Education Certification courses, 12 credits in concentration courses, and 6 credits in research. For a certification in Special Education, students must have completed 13.5 pre-requisite credits in special education accommodations to apply for certification in Pennsylvania. These credits may be completed in an undergraduate program.

Pre-requisites for Certification in Special Education:

Special Education Accommodations
Students must have completed the following courses in order to apply for a certification in special education. All students entering the masters program from an approved PA certification program after 2011 should have had these core courses in their initial certification program. If a student has not completed the following three courses, they should be taken in place of a concentration:

EDUC 542 Fundamentals of Special Education
EDUC 544 The Inclusive Classroom
EDUC 546 Literacy and Content Skill Development

Core Certification Courses		
EDUC 547	Special Education Processes	4.5
EDUC 548	Emotional & Behavioral Support	4.5
EDUC 549	High Incident Disabilities	4.5
EDUC 550	Teaching Students with Low Incident Disabilities	4.5
EDUC 551	Pervasive Developmental Disorders	4.5
EDUC 552	Integrating Technology for Learning & Achievement	4.5
EDUC 553	Special Education: Methods & Practices	4.5
Concentration Courses		**12.0**
Select one of the following concentrations:		
Autism Concentration		
EDEX 556	Characteristics & Methods: Autism	
EDEX 558	Characteristics & Methods: High Functioning Autism	
EDEX 560	Communication & Language Interventions: Autism Spectrum Disorders	
EDEX 562	Behavior & Sensory Support: Autism Spectrum Disorders	
Technologies for Special Ed		
EDUC 511	Computer Skills for Teachers	
EDUC 525	Multi-Media Instructional Design	
EDUC 535	Researching & Evaluating Instructional Technology	
EDUC 537	Learning Disabilities II	
Language and Cultural Issues		
EDUC 602	Language Learning & Teaching	
EDUC 604	Structure and Sound System of English	
EDUC 606	Design and Assessment	

EDUC 608	The Intercultural Learner	
Capstone Activities		
EDEX 610	Action Research for Special Education Teachers I	4.5
EDEX 611	Action Research for Special Education Teachers II	1.5
Total Credits		49.5

Master of Science in Teaching, Learning & Curriculum

About the Program

Master of Science: 45.0 quarter credits

The MS in Teaching, Learning, and Curriculum provides two options: (Track I) earning a master's degree while completing initial certification to become a classroom teacher; or (Track II) earning a master's degree to enhance an existing career as a classroom teacher. Students select an area of concentration from among a variety of options, providing an opportunity for intensive study in teaching, learning, and curriculum; educational leadership; international education; instructional technology; or higher education. Students may also customize their own concentration based on their interests and professional needs.

Track I: Initial Pennsylvania Teacher Certification

This track incorporates current research on teaching and provides in-depth preparation in pedagogy, curriculum development, teaching students with special needs, implications of learner and task characteristics for instructional design, scaffolding instruction for diverse learners, the latest techniques in evaluation of instruction, and use of interactive technology in instruction. The student is provided opportunities to synthesize theoretical and practical knowledge through field study.

Completion of the core pedagogy courses allows for recommendation for PA Instructional I certification.

Track II: Advanced Studies in Teaching, Learning and Curriculum

This track is designed to provide students with advanced teaching knowledge and skills well beyond that required for initial Pennsylvania certification. Graduates will be prepared to function in a variety of roles as instructors, instructional leaders or researchers in local, state, national and international organizations, foundations, associations, corporations and private educational institutions. The program also provides a strong foundation for doctoral level studies.

Program Goals

Graduates of the MS in Teaching, Learning and Curriculum will:

- Possess advanced knowledge related to effective instruction in a variety of educational settings.
- Demonstrate skills in developing, analyzing, implementing, and evaluating existing and new instructional strategies and practices in a variety of educational institutions/organizations.
- Exhibit outstanding leadership, organizational, cross cultural, inter-personal and advocacy skills including the ability to communicate effectively with internal and external groups.

- Have in-depth knowledge of both public and private (non-profit and for-profit) institutions as well as small and large institutions.

Admission Requirements

Admission to the MS in Teaching, Learning and Curriculum will follow the University standards for admission to graduate study including receipt of a bachelor's degree from an accredited college or university with an earned GPA of 3.0 on a 4.0 scale. Undergraduates who meet the rigorous requirements for participation in a Bachelor's and Master Dual Degree Program may also be considered. Ideally, a successful candidate will possess a public school teaching certificate or, in the case of an undergraduate pursuing the BS/MS track, complete teacher certification requirement in conjunction with the MS degree.

Prospective students can learn about specific admission requirements by visiting the Graduate Admissions at Drexel University (http://www.drexel.edu/grad/programs/edu/apply/requirements) website.

Degree Requirements

Track I: Initial Pennsylvania Teacher Certification

A minimum of 45.0 credits is required for students with or without prior certification for the Master of Science degree.

Core Courses
Completion of the following 33.0 (secondary certification) credits or 42.0 (PreK-4) credits of core pedagogy courses allows for recommendation for PA Instructional I certification. View the requirements on the Post-Baccalaureate Teaching Certificate: Elementary Pre-K-4 and Secondary Concentrations (https://nextcatalog.drexel.edu/graduate/schoolofeducation/postbacteachingcert) page for additional information on requirements for specialization in subject areas.

Secondary Education Core Courses

EDUC 514	Science Teaching Methods	3.0
EDUC 515	Adolescent Learners in Secondary Schools	3.0
EDUC 520	Professional Studies in Instruction	3.0
EDUC 522	Evaluation of Instruction	3.0
EDUC 525	Multi-Media Instructional Design	3.0
EDUC 540	Field Experience	3.0
EDUC 542	Fundamentals of Special Education	3.0
EDUC 544	The Inclusive Classroom	3.0
EDUC 546	Literacy and Content Skill Development	3.0
EDUC 558	Reading in the Content Areas	3.0
EDUC 565	Foundations in Instructing English Language Learners	3.0
Professional Electives		12.0
Total Credits		45.0

Elementary Education (PreK-4) Core Courses

EDUC 506	Assessment of Young Learners	3.0
EDUC 513	Elementary Science Teaching Methods	3.0
EDUC 517	Math Methods & Content: Early Childhood PK-4	3.0
EDUC 520	Professional Studies in Instruction	3.0

EDUC 521	Typical and Atypical Development in Early Childhood Education	3.0
EDUC 525	Multi-Media Instructional Design	3.0
EDUC 529	Early Literacy	3.0
EDUC 539	Expressive Arts	3.0
EDUC 540	Field Experience (Graduate Student Teaching with Seminar)	3.0
EDUC 542	Fundamentals of Special Education	3.0
EDUC 544	The Inclusive Classroom	3.0
EDUC 546	Literacy and Content Skill Development	3.0
EDUC 555	Social Studies Teaching Methods	3.0
EDUC 565	Foundations in Instructing English Language Learners	3.0
Professional Elective		3.0
Total Credits		45.0

Track II: Advanced Studies in Teaching, Learning and Curriculum

Students will complete a total of 45 credit hours consisting of seven core courses, two research courses, and six concentration courses in an approved area.

Core Courses

EDUC 530	Advanced Techniques in Instruction & Assessment	3.0
EDUC 533	Designing Virtual Communities	3.0
EDUC 537	Learning Disabilities II	3.0
EDUC 608	The Intercultural Learner	3.0
EDUC 714	Instructional and Curriculum Leadership	3.0
EDUC 804	Program Evaluation in Organizations	3.0
EDUC 813	Educational Issues Seminar	3.0
Research Courses		
EDUC 803	Educational Research Design I	3.0
EDUC 810	Educational Research Design II	3.0
Concentration Courses (See Below)		18.0
Total Credits		45.0

Students choose from the following concentration options with the approval of a graduate academic advisor and the program director:

- Science of Instruction
- Educational Administration
- Global and International
- Instructional Technology
- Higher Education
- Customized Concentration (including other Drexel academic departments)

Certificate in Adult Education

The Certificate in Adult Education prepares students to develop curricular and instructional strategies focused on the unique needs and characteristics of adult learners. The planned program will utilize authentic problems to address and solve including a practicum in an adult education situation.

The certificate will include six courses focused on the theoretical foundations, research and professional practice of adult education. The certificate will offer applicable course and fieldwork opportunities for students pursuing careers in a variety of professional settings, including, but not limited to; education, business and health care.

Requirements

EDAE 601	Foundations of Adult Education	3.0
EDAE 602	Adult Learning and Development	3.0
EDAE 603	Program Planning: Assessment & Evaluation of Adult Education	3.0
EDAE 604	Instructional Design and Delivery Strategies	3.0
EDAE 605	Instructional Skills for Teaching Adults Online	3.0
EDAE 606	Transformative Learning in Practice: Practicum in Adult Education	3.0
Total Credits		18.0

Advanced Teaching/Curriculum Certificate

The Advanced Teaching/Curriculum Certificate program (ATCC) meets the needs of in-service teachers in a variety of educational settings who seek advanced knowledge beyond that required for initial teacher certification in the areas of effective instruction, curriculum and assessment.

Upon completion of the ATCC, candidates will possess knowledge of the many facets of education.

- In-depth understanding of varying educational organizations and sectors
- Expertise in developing, analyzing, implementing and evaluating instructional strategies
- Ability to exhibit leadership
- Organizational, cross cultural, interpersonal, advocacy, and communication skills

In addition, the ATCC program will provide candidates opportunities to explore a variety of other roles in an educational setting including:

- Instructional leaders both in and beyond the classroom
- Researchers in local, state, national, or international organizations
- Professionals in foundations, associations, corporations, and private education institutions.

EDUC 530	Advanced Techniques in Instruction & Assessment	3.0
EDUC 533	Designing Virtual Communities	3.0
EDUC 537	Learning Disabilities II	3.0
EDUC 608	The Intercultural Learner	3.0
EDUC 714	Instructional and Curriculum Leadership	3.0
EDUC 813	Educational Issues Seminar	3.0
Total Credits		18.0

The program is administered through Drexel eLearning. For the most current admission information, please visit www.drexel.com (http://www.drexel.com/online-degrees/education-degrees/cert-pbt).

Certificate in Autism Spectrum Disorders

Within the past decade, the number of children diagnosed with Autism or Asperger's Syndrome has increased drastically. Consequently, the need for professionals trained in this specialized area has significantly increased. This certificate is designed for those who seek additional expertise in this critical-need area. Students who complete the graduate-level Certificate in Autism Spectrum Disorders are equipped with the fundamental skills, knowledge, teaching methods, interventions, and supports needed to work with students with Autism and Asperger's Syndrome.

The program is a part-time graduate program consisting of 5 courses (16.5 credits.) Teacher certification is not a requirement for admission to this program, however applicants are expected to have completed a bachelor's degree.

Introductory Course

EDUC 551	Pervasive Developmental Disorders (pre-requisite for the Certificate in Autism)	4.5
Required Courses		
EDEX 556	Characteristics & Methods: Autism	3.0
EDEX 558	Characteristics & Methods: High Functioning Autism	3.0
EDEX 560	Communication & Language Interventions: Autism Spectrum Disorders	3.0
EDEX 562	Behavior & Sensory Support: Autism Spectrum Disorders	3.0
Total Credits		16.5

Additional Information

The program is administered through Drexel eLearning. For the most current admission information, please visit www.drexel.com (http://www.drexel.com/online-degrees/education-degrees/cert-pbt).

For more information about this program, contact the program manager:

Owen C. Schugsta
School of Education
Goodwin College
Drexel University
215.895.1690
ocs23@drexel.edu

Certificate in Community College Administration and Leadership

The Certificate in Community College Administration and Leadership is an option for students and professionals who have already completed a BA

and would like to enhance their professional credentials without pursing a master's degree.

Required Courses

EDHE 500	Foundations of Higher Education	3.0
ORGB 631	Leading Effective Organizations	3.0
EDUC 705	School Law and Politics	3.0
Select three of the following:		9.0
EDHE 634	Proposal Writing & Sponsored Project Management	
EDHE 664	Strategies for Educational Success	
EDHE 668	Transformational Leadership	
EDHE 669	Diversity in Higher Education	
Total Credits		18.0

Additional Information

For additional information, visit Drexel University's Higher Education, Administration and Leadership (http://goodwin.drexel.edu/eal) page.

Certificate in Educational Policy

The Certificate in Educational Policy examines the concept of "policy" as it relates to education and educational institutions and their governance and practices. Students will learn the factors involved in educational policy-making, including the ethics in policy-making decisions, and the methods for analyzing phenomenon that impact educational policy.

The program is designed to prepare educators of all types in the decision-making process of educational policy development.

Requirements

EDPO 620	Education Policy: Concepts, Issues, and Applications	3.0
EDPO 624	Shaping of American Education Policy: Global Forces	3.0
EDPO 628	American Educational Policy and U.S. Competitiveness	3.0
EDPO 632	Ethics in Educational Policy Making	3.0
EDPO 636	Access & Equity in Educational Policy Making	3.0
EDPO 640	Educational Policy-Making Tactics & Influence	3.0
Total Credits		18.0

Certificate in Human Resource Development

The Certificate in Human Resource Development prepares professionals in the field of education with the skills they need to strategically lead human resource development and align organizational learning with organizational goals.

Required Courses

EDHE 660	Principles of Adult Education	3.0
EHRD 500	Foundations of Human Resources Development	3.0
EHRD 600	Organizational Consulting	3.0
EHRD 601	Leading and Evaluating Change	3.0
EHRD 606	Human and Organizational Performance	3.0
EHRD 608	Evaluating the Value & Impact of Human Resource Development Interventions	3.0
Total Credits		18.0

Instructional Technology Specialist Certificate

The Instructional Technology Specialist Certificate program was designed to address the dramatically increasing need in public education for certified Instructional Technology Specialists at every level of K-12 schooling.

Applicants for Instructional Technology Specialist Certification should ideally possess valid Pennsylvania Instructional I or II Teaching Certification. Students working on their initial teaching certificate may begin working toward this these certificate with special permission of a teacher education advisor. (Visit the School of Education (http://www.drexel.edu/soe) for additional information.)

Minimum coursework requirements for the Instructional Technology Specialist Certificate include 25.5-31.5 credits of specific pedagogy. The PA Certification requires a "B" or better in al certification coursework. If a student seeks the Instructional Technology Specialist PA Certification without a previous held teaching certificate, he or she will need to complete EDUC 522 (https://nextcatalog.drexel.edu/graduate/schoolofeducation/instructionaltechnologyspecialistcert) and EDUC 525 (https://nextcatalog.drexel.edu/graduate/schoolofeducation/instructionaltechnologyspecialistcert).

Core Courses

EDUC 533	Designing Virtual Communities	3.0
EDUC 534	Developing Educational Leaders Using Technology	3.0
EDUC 535	Researching & Evaluating Instructional Technology	3.0
EDUC 542	Fundamentals of Special Education	3.0
EDUC 544	The Inclusive Classroom	3.0
EDUC 552	Integrating Technology for Learning & Achievement	4.5
INFO 520	Social Context of Information Professions	3.0
INFO 640	Managing Information Organizations	3.0
Additional required courses for candidates without prior teacher certification:		0.0-6.0
EDUC 522	Evaluation of Instruction	
EDUC 525	Multi-Media Instructional Design	
Total Credits		25.5-31.5

Certificate in Learning in Game-Based Systems Environments

The Certificate in Learning in Game-based System Environments prepares educators to effectively use educational games in and out of the classroom and training center. The program provides an overview of game development processes, enables participants to build basic games, and most importantly, examines how to assess and evaluate the learning experience as it relates to educational games.

The certificate program culminates with a capstone project in which students produce their own basic educational game and subsequently formulate an evaluative process to address its effectiveness.

Required Courses [*]

EDLT 541	Foundations of Game-Based Learning	3.0
EDLT 542	Research in Motivation & Game-based Learning	3.0
EDLT 543	Play & Learning in a Participatory Culture	3.0
EDLT 544	Integrating Games & Pedagogical Content Knowledge	3.0
EDLT 545	Design & Development of Learning Games I	3.0
EDLT 546	Design & Development of Learning Games II	3.0
EDLT 547	Capstone Project I	1.5
EDLT 548	Capstone Project II	4.5
EDUC 535	Researching & Evaluating Instructional Technology	3.0
Total Credits		27.0

*Certain courses an be waived if the student has completed equivalent courses in his or her undergraduate education and can demonstrate proficiency.

Certificate in Mathematics Learning & Teaching

The Certificate of Graduate Studies in Mathematics Learning and Teaching requires the completion of 15 credit hours of coursework and is designed to provide mathematics teachers with development opportunities for enhancing the quality of their instruction. Recognizing many teachers pursue graduate studies while working full-time, the program has been designed so that it can be completed over five quarters (requiring only one course per quarter), and is offered in an online format.

Students in the certificate program take courses alongside those in the MS program. Certificate students may concurrently pursue the Master's degree in Mathematics Learning & Teaching or the MS in Teaching, Learning and Curriculum (http://www.drexel.edu/catalog/grad/edu/ms-teach-). Additionally, students may take additional required courses towards this degree each semester. All of the Mathematics Learning & Teaching courses count towards the 18 required "concentration courses" of the MS in Teaching, Learning and Curriculum program.

Certificate Requirements

Required Course

MTED 601	Diagnosing Student Mathematical Thinking	3.0
Select two of the following:		6.0
MTED 501	Proportional and Algebraic Reasoning	
MTED 502	Geometry & Spatial Reasoning	
MTED 503	Data Analysis and Probabalistic & Statistical Reasoning	
MTED 511	Functions through the Curriculum	
Students select 6.0 additional credits from any 600- 700 level MTED courses.		6.0
Total Credits		15.0

School Principal Certificate

22.0 quarter credits (if not pursuing MS program); 33.0 quarter credits (if pursuing of MS program)

The School Principal Certificate was designed to produce school leaders who are knowledgeable about current theories and strategies in leadership and change. Components of the program's conceptual bedrock are heuristic diagnostic learning, intelligent use of emotions in interpersonal skills of leadership, creative problem solving, and learning technologies.

The School Superintendent (Letter of Eligibility) available at the PhD level was designed to offer future school district leaders current research-based knowledge in creative instructional, community, and technological leadership.

Admission Requirements

Applicants come from a variety of undergraduate and graduate backgrounds and typically desire to provide leadership for change as a school principal. The School Principal Certification is available for teachers who already possess initial teaching certificates and requires a minimum of five years of appropriate teaching experience.

Applicants interested in School Principal Certification must interview with the director of the Leadership and Change area of studies in the School of Education. During the interview, the applicant's transcripts and life experiences are evaluated in relation to Pennsylvania state standards for the specific certification area. If coursework is dated, a content exam or additional coursework may be required. Specific content courses are generally not required for students working toward School Principal certification. Applicants must meet the general admissions requirements for graduate studies at Drexel University.

Program Requirements

Students will not be recommended for the School Principal Certificate until all course requirements are met, initial teaching certificate has been received, and all required sections of the Praxis Exams have been taken, and five years of satisfactory professional school experience have been completed. Minimum coursework requirements for the School Principal Certificate include 21-32.0 credits of specific pedagogy as outlined below. These credits may be incorporated into the graduate Science of Instruction program or into the electives portion of another approved Drexel master's degree program. Students must achieve the grade of B or better in each graduate level course needed for certification and receive passing Praxis Exam scores in order to satisfy requirements for the desired certification.

Core Courses for School Principal Track

At a minimum, 33.0 credits will be required from the core courses. (A minimum of 22.0 credits is required for students not wishing to build the School Principal Certificate into the master's degree program.)

School Principal Courses

EDUC 522	Evaluation of Instruction [*]	3.0
EDUC 523	Diagnostic Teaching [*]	4.0
EDUC 525	Multi-Media Instructional Design [*]	3.0
EDUC 702	School Leadership & Decision Making	3.0
EDUC 705	School Law and Politics	3.0

EDUC 708	Integration of Technology with School Instruction and Management	3.0
EDUC 710	School Finance and Facilities	3.0
EDUC 712	School and Community Partnerships and Relations	3.0
EDUC 714	Instructional and Curriculum Leadership	3.0
EDUC 715	School Principal Internship: Technology	1.5
EDUC 716	School Principal Internship: Finance	1.5
EDUC 717	School Principal Internship: Leadership	1.5
EDUC 718	School Principal Internship: School and Community Relations	1.5
Total Credits		34.0

* Not required for students who pursue the School Principal Certificate without working toward the master's degree.

Students working toward School Principal Certification engage in a corresponding one-credit school-based internship when enrolled in EDUC 708 (https://nextcatalog.drexel.edu/graduate/schoolofeducation/prinicipalcert), EDUC 710 (https://nextcatalog.drexel.edu/graduate/schoolofeducation/prinicipalcert), EDUC 712 (https://nextcatalog.drexel.edu/graduate/schoolofeducation/prinicipalcert), and EDUC 714 (https://nextcatalog.drexel.edu/graduate/schoolofeducation/prinicipalcert), related to each course's content.

Students who possess a valid Pennsylvania Instructional I or II Teaching Certificate and have completed a minimum of five years of satisfactory professional school experience upon successful completion of theses core courses, and who also meet the current state minimum score on the Praxis Exam entitled, School Leaders License Assessment (Principal), may apply for School Principal Certification and continue working toward the master's degree requirements.

Master of Science Degree Requirements
Once students complete the 33.0 core credits for the School Principal certification, an additional 12.0 credits of Professional electives are necessary to finish the Master of Science, Science of Instruction degree.

Post-Baccalaureate Teaching Certificates: Elementary Education and Secondary Education

These certificate programs are designed for individuals who hold a Bachelor's degree and who seek to qualify for Pennsylvania teacher certification at the elementary or secondary level. The curriculum is designed for those changing careers as well as those who already serve as temporary, emergency, or substitute teachers and wish to earn a formal teaching credential. Students completing the certification program have the option to continue coursework to earn MS in Teaching, Learning & Curriculum degree. All graduate credits earned in this certificate program may be applied toward the Master's degree in Teaching, Learning and Curriculum (p. 42).

The program will prepares students for a Pennsylvania Instructional I Certificate. Students also have the option of earning the Graduate Intern Teaching Certificate (p. 50) during the course of the program. The PA Graduate Intern Teaching Certificate feature is only available to students who want to teach in Pennsylvania.

For students intending to teach outside of Pennsylvania, through operation of interstate reciprocity agreements, a Pennsylvania teaching certificate may be converted to the analogous teaching certificate in another state. The School recommends prospective students contact their state's Department of Education to find out these transfer procedures before proceeding.

Certification Areas

Drexel University's Pennsylvania Department of Education-approved programs certify students who already hold Bachelor's degrees to be teachers in:

- Elementary Education (PreK-4)
- Secondary Education (7-12)
  - biology, chemistry, physics, earth and space science, general science, environmental education, English, social studies and mathematics

Additional undergraduate content courses may be required. Learn more about undergraduate content course requirements for elementary or secondary certification in each subject.

Elementary Education (PreK-4) Certification

Core Pedagogy Courses		
EDUC 506	Assessment of Young Learners	3.0
EDUC 513	Elementary Science Teaching Methods	3.0
EDUC 517	Math Methods & Content: Early Childhood PK-4	3.0
EDUC 520	Professional Studies in Instruction	3.0
EDUC 521	Typical and Atypical Development in Early Childhood Education	3.0
EDUC 525	Multi-Media Instructional Design	3.0
EDUC 529	Early Literacy	3.0
EDUC 539	Expressive Arts	3.0
EDUC 540	Field Experience (Graduate Student Teaching with Seminar)	3.0
EDUC 542	Fundamentals of Special Education	3.0
EDUC 544	The Inclusive Classroom	3.0
EDUC 546	Literacy and Content Skill Development	3.0
EDUC 555	Social Studies Teaching Methods	3.0
EDUC 565	Foundations in Instructing English Language Learners	3.0
Total Credits		42.0

Secondary Biology Certification

Core Pedagogy Courses		
EDUC 514	Science Teaching Methods	3.0
EDUC 515	Adolescent Learners in Secondary Schools	3.0
EDUC 520	Professional Studies in Instruction	3.0
EDUC 522	Evaluation of Instruction	3.0
EDUC 525	Multi-Media Instructional Design	3.0
EDUC 540	Field Experience	3.0
EDUC 542	Fundamentals of Special Education	3.0
EDUC 544	The Inclusive Classroom	3.0
EDUC 546	Literacy and Content Skill Development	3.0
EDUC 558	Reading in the Content Areas	3.0

EDUC 565	Foundations in Instructing English Language Learners	3.0
Total Credits		**33.0**

Secondary Chemistry Certification
Core Pedagogy Courses

EDUC 514	Science Teaching Methods	3.0
EDUC 515	Adolescent Learners in Secondary Schools	3.0
EDUC 520	Professional Studies in Instruction	3.0
EDUC 522	Evaluation of Instruction	3.0
EDUC 525	Multi-Media Instructional Design	3.0
EDUC 540	Field Experience	3.0
EDUC 542	Fundamentals of Special Education	3.0
EDUC 544	The Inclusive Classroom	3.0
EDUC 546	Literacy and Content Skill Development	3.0
EDUC 558	Reading in the Content Areas	3.0
EDUC 565	Foundations in Instructing English Language Learners	3.0
Total Credits		**33.0**

Secondary Earth and Space Science Certification
Core Pedagogy Courses

EDUC 514	Science Teaching Methods	3.0
EDUC 515	Adolescent Learners in Secondary Schools	3.0
EDUC 520	Professional Studies in Instruction	3.0
EDUC 522	Evaluation of Instruction	3.0
EDUC 525	Multi-Media Instructional Design	3.0
EDUC 540	Field Experience	3.0
EDUC 542	Fundamentals of Special Education	3.0
EDUC 544	The Inclusive Classroom	3.0
EDUC 546	Literacy and Content Skill Development	3.0
EDUC 558	Reading in the Content Areas	3.0
EDUC 565	Foundations in Instructing English Language Learners	3.0
Total Credits		**33.0**

Secondary English Certification
Core Pedagogy Courses

EDUC 515	Adolescent Learners in Secondary Schools	3.0
EDUC 520	Professional Studies in Instruction	3.0
EDUC 522	Evaluation of Instruction	3.0
EDUC 525	Multi-Media Instructional Design	3.0
EDUC 538	English Teaching Methods	3.0
EDUC 540	Field Experience	3.0
EDUC 542	Fundamentals of Special Education	3.0
EDUC 544	The Inclusive Classroom	3.0
EDUC 546	Literacy and Content Skill Development	3.0
EDUC 558	Reading in the Content Areas	3.0
EDUC 565	Foundations in Instructing English Language Learners	3.0
Total Credits		**33.0**

Environmental Education (K-12) Certification
Core Pedagogy Courses

EDUC 514	Science Teaching Methods	3.0
EDUC 515	Adolescent Learners in Secondary Schools	3.0
EDUC 520	Professional Studies in Instruction	3.0
EDUC 522	Evaluation of Instruction	3.0
EDUC 525	Multi-Media Instructional Design	3.0
EDUC 540	Field Experience	3.0
EDUC 542	Fundamentals of Special Education	3.0
EDUC 544	The Inclusive Classroom	3.0
EDUC 546	Literacy and Content Skill Development	3.0
EDUC 558	Reading in the Content Areas	3.0
EDUC 565	Foundations in Instructing English Language Learners	3.0
Total Credits		**33.0**

Secondary General Science Certification
Core Pedagogy Courses

EDUC 514	Science Teaching Methods	3.0
EDUC 515	Adolescent Learners in Secondary Schools	3.0
EDUC 520	Professional Studies in Instruction	3.0
EDUC 522	Evaluation of Instruction	3.0
EDUC 525	Multi-Media Instructional Design	3.0
EDUC 540	Field Experience	3.0
EDUC 542	Fundamentals of Special Education	3.0
EDUC 544	The Inclusive Classroom	3.0
EDUC 546	Literacy and Content Skill Development	3.0
EDUC 558	Reading in the Content Areas	3.0
EDUC 565	Foundations in Instructing English Language Learners	3.0
Total Credits		**33.0**

Secondary Mathematics Certification
Core Pedagogy Courses

EDUC 515	Adolescent Learners in Secondary Schools	3.0
EDUC 519	Teaching Secondary Mathematics	3.0
EDUC 520	Professional Studies in Instruction	3.0
EDUC 522	Evaluation of Instruction	3.0
EDUC 525	Multi-Media Instructional Design	3.0
EDUC 540	Field Experience	3.0
EDUC 542	Fundamentals of Special Education	3.0
EDUC 544	The Inclusive Classroom	3.0
EDUC 546	Literacy and Content Skill Development	3.0
EDUC 558	Reading in the Content Areas	3.0
EDUC 565	Foundations in Instructing English Language Learners	3.0
Total Credits		**33.0**

Secondary Physics Certification
Core Pedagogy Courses

EDUC 514	Science Teaching Methods	3.0
EDUC 515	Adolescent Learners in Secondary Schools	3.0
EDUC 520	Professional Studies in Instruction	3.0
EDUC 522	Evaluation of Instruction	3.0
EDUC 525	Multi-Media Instructional Design	3.0

EDUC 540	Field Experience	3.0
EDUC 542	Fundamentals of Special Education	3.0
EDUC 544	The Inclusive Classroom	3.0
EDUC 546	Literacy and Content Skill Development	3.0
EDUC 558	Reading in the Content Areas	3.0
EDUC 565	Foundations in Instructing English Language Learners	3.0
Total Credits		33.0

Secondary Social Studies Certification

Core Pedagogy Courses		
EDUC 520	Professional Studies in Instruction	3.0
EDUC 542	Fundamentals of Special Education	3.0
EDUC 515	Adolescent Learners in Secondary Schools	3.0
EDUC 522	Evaluation of Instruction	3.0
EDUC 525	Multi-Media Instructional Design	3.0
EDUC 544	The Inclusive Classroom	3.0
EDUC 546	Literacy and Content Skill Development	3.0
EDUC 565	Foundations in Instructing English Language Learners	3.0
EDUC 558	Reading in the Content Areas	3.0
EDUC 540	Field Experience	3.0
EDUC 775	Special Topics in Teacher Preparation	3.0
Total Credits		33.0

Post-Baccalaureate Teaching Certificate: Elementary Education, Special Education Concentration

The Special Education Certification program seeks to produce professionals who are equipped with the fundamental skills, knowledge, and competencies they will need to meet the needs of students at risk for school failure and students with disabilities in multiple settings.

The Special Education Certification program is intended for those interested in gaining greater skills and expertise in the area of Special Education and a teaching certificate in the area of special education. Candidates seeking PA special education certification must have been issued a prior PA Instructional I or Instructional II teaching certificate.

It is a part-time graduate program consisting of 31.5 credits in Core Special Education Certification courses. For students that have not completed the prerequisite courses, the program will require 45.0 credits: 31.5 credits in Core Special Education Certification courses and 13.5 credits in Pre-Requisites for Certification in Special Education.

This program is designed s for currently certified teachers who wish to obtain Special Education certification in Pennsylvania. Out of state teachers may also earn their PA Special Education Certification if they transfer their current teacher certification to PA.

The courses cover all required state and federal regulations related to No Child Left Behind (NCLB) and Chapter 49 as well as the PA General Standards for Special Education and the standards outlined by the Council of Exceptional Children (CEC).

Pre-requisites for Certification in Special Education

Students must have completed the following courses in order to apply for a certification in special education. All students entering the post-bachelor's certificate program after 2011 should have had these core courses in their initial certification program. If a student has not completed the following three courses, they should be taken to apply for special education certification:

EDUC 542	Fundamentals of Special Education	3.0
EDUC 544	The Inclusive Classroom	3.0
EDUC 546	Literacy and Content Skill Development	3.0

Certification Courses

EDUC 547	Special Education Processes	4.5
EDUC 548	Emotional & Behavioral Support	4.5
EDUC 549	High Incident Disabilities	4.5
EDUC 550	Teaching Students with Low Incident Disabilities	4.5
EDUC 551	Pervasive Developmental Disorders	4.5
EDUC 552	Integrating Technology for Learning & Achievement	4.5
EDUC 553	Special Education: Methods & Practices	4.5
Total Credits		31.5

The program is administered through Drexel eLearning. For the most current admission information, please visit www.drexel.com (http://www.drexel.com/online-degrees/education-degrees/cert-pbt).

Professional Development Certificates in Education Improvement and Transformation

About the Certificates

Each certificate concentration = 9.0 quarter credits

The certificates are designed to prepare professional educators and others to lead transformative (reform) initiatives in formal and informal education sectors through a professional development grounded model.

Each concentration addresses key topics pertinent to the improvement of PK-adult education.

In addition to being stand-alone certificates, four of these may be "stacked" within the MS in Education Improvement and Transformation (p. 28) to create a total of 36.0 credits toward graduation of that degree program.

Certificate in Education Innovation and Transformation: Evaluation and Assessment

EDHE 680	Foundations of Evaluation	3.0
EDHE 682	The Evaluation Process	3.0
EDUC 804	Program Evaluation in Organizations	3.0
Total Credits		9.0

Leadership in Educational Settings Concentration

EDHE 680	Foundations of Evaluation	3.0
EDHE 682	The Evaluation Process	3.0

EDUC 804	Program Evaluation in Organizations	3.0
Total Credits		9.0

Learning Technologies Concentration

EDLT 537	Technologies for Performance Support	3.0
EDLT 538	New Media Literacies	3.0
EDUC 532	Designing Virtual Communities for Staff Development - Non-Field Experience	3.0
Total Credits		9.0

Urban Education Concentration

EDAM 500	Leading in Urban, Rural and Suburban Settings	3.0
EDUC 516	Diversity and Today's Teacher	3.0
EDUC 561	Mediating and Resolving Conflict in School Settings	3.0
Total Credits		9.0

Creativity & Innovation Concentration

CRTV 502	Tools and Techniques in Creativity	3.0
CRTV 503	Creativity in the Workplace	3.0
CRTV 650	Current Trends in Creativity & Innovation	3.0
Total Credits		9.0

Educational Policy

EDPO 620	Education Policy: Concepts, Issues, and Applications	3.0
EDPO 628	American Educational Policy and U.S. Competitiveness	3.0
EDPO 632	Ethics in Educational Policy Making	3.0
Total Credits		9.0

Post-Bachelor's Certificate in Special Education Leadership

The Post-Bachelor's Certificate in Special Education Leadership is designed to produce educators who are equipped with the advanced skills, knowledge, and competencies they will need to lead programs that meet the needs of students at risk for and with disabilities in multiple settings.

The program requires 16.0 credits of special education leadership courses and 12.0 credits of leadership core courses (for a total of 28.0 credits). The courses in the leadership core focus on areas of change, finance, evaluation and assessment, and technology. Students must complete all courses for recommendation for the PA certification in the Supervisor of Special Education.

Leadership Core Courses

EDAM 522	Evaluation & Assessment Competencies	3.0
EDUC 708	Integration of Technology with School Instruction and Management	3.0
EDUC 710	School Finance and Facilities	3.0
EDUC 800	Educational Leadership & Change	3.0

Special Education Leadership Concentration Courses

EDEX 710	School Law & Policy in Special Education	3.0
EDEX 712	Instructional & Curriculum Leadership in Special Education	3.0
EDEX 714	Development, Supervision, & Support: Special Education Leadership	3.0
EDEX 716	Organization & Administration of Special Education	3.0
EDEX 721	Supervisor of Special Education Internship: Special Education Leadership	1.0
EDEX 722	Supervisor of Special Education Internship: Instructional Leadership	1.0
EDEX 723	Supervisor of Special Education Internship: Collaboration & Personnel	1.0
EDEX 724	Supervisor of Special Education Internship: Finance & Management	1.0
Total Credits		28.0

Additional Information

For more information about this program, contact the program manager:

Owen C. Schugsta
School of Education
Goodwin College
Drexel University
215.895.1690
ocs23@drexel.edu

Certificate in Student Development and Affairs

The Certificate in Student Development and Affairs is an option for students and professionals who have already completed a BA and would like to enhance their professional credentials without pursing a master's degree.

Required Courses

EDHE 500	Foundations of Higher Education	3.0
EDHE 520	Student Development & Customer Service Management	3.0
EDUC 705	School Law and Politics	3.0
Select three of the following:		9.0
EDHE 652	Enrollment Marketing, Recruitment & Retention	
EDHE 662	Critical Issues in Student Affairs	
EDHE 663	Safety and Crisis Management	
EDHE 669	Diversity in Higher Education	
Total Credits		18.0

Additional Information

For additional information, visit Drexel University's Higher Education, Administration and Leadership (http://goodwin.drexel.edu/eal) page.

Graduate Intern Teaching Certificate

33.0 quarter credits

Admission Requirements

Applicants for the Graduate Intern Teaching Certificate program must complete an interview with a teacher education advisor before completing a graduate application. During this interview the applicant's transcripts are evaluated in relation to Pennsylvania state standards for the specific certification area. If coursework is dated, a content exam or additional coursework may be required. Life experience that demonstrates knowledge of the content area will be considered. Additional coursework in the content area may be required to meet certification standards. In addition, applicants must meet the general admission requirements for graduate studies at Drexel University.

Program Requirements

Graduate Intern Teaching Certificate applicants for secondary certification must have a bachelor's degree in an area related to that in which they intend to become certified. Minimum coursework requirements include 33.0 credits of pedagogy, which may be incorporated into the graduate Teaching, Learning and Curriculum master's degree program in the subject area of certification. PA intern certification is not available for secondary social studies or PreK-4.

Intern teachers may obtain a full-time teaching position after they have been recommended for the Pennsylvania Department of Education Intern Teaching Certificate. To be recommended, students must be admitted into the Drexel graduate program, obtain at least a B in EDUC 520 Professional Studies in Instruction , EDUC 542 Fundamentals of Special Education, the appropriate methods course, and EDUC 540 Field Experience, and obtain the necessary scores on the appropriate sections of the Praxis Series assessment through Educational Testing Service (ETS).

Completion of all required pedagogy coursework with at least a B in each and a B average in required content courses and passing Praxis Series scores will satisfy requirements for Pennsylvania Instructional I Certification.

Teaching English as a Second Language

Teaching English as a second language certification is an add-on certificate available to students that currently possess a Pennsylvania Instructional I or Instructional II teaching certificate. The 12-credit ESL certificate program covers the theory and practice of second language education, the structure and sound of English, the design and assessment of ESL course materials, as well as broader issues in intercultural learning. It does not require that the instructor speak another language. Credits earned through this program may be applied toward the MS in the Science of Instruction, or the MS in Teaching, Learning and Curriculum (https://nextcatalog.drexel.edu/graduate/schoolofeducation/teachinglearningandcurriculum).

This program satisfies PA State of Education requirements for Program Specialist: ESL endorsement. Interstate agreements generally allow applicability across the US. However, prospective students outside of Pennsylvania are advised to check with their state authorities to determine whether this program is appropriate for their case.

Courses

EDUC 602	Language Learning & Teaching	3.0
EDUC 604	Structure and Sound System of English	3.0
EDUC 606	Design and Assessment	3.0
EDUC 608	The Intercultural Learner	3.0
Total Credits		12.0

Undergraduate Course Descriptions

Geography Education

Courses

EDGE 210 Geography Education 3.0 Credits
This course is an introduction to geographic concepts, themes and elements; designed to build a foundational understanding and analytical tools to examine the world from a geographic perspective. The course emphasizes the unique qualities of world regions, and the spatial interaction of people, elements, and regions, as well as major regional and global problems and prospects.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGE 211 Geography Education: Teacher Laboratory 1.5 Credit
A teaching methods and techniques laboratory designed to prepare pre-service PK-12 teachers to effectively help their future students better understand and analyze their world utilizing geographic concepts, themes and elements. The weekly labs correspond directly to the content represented in EDGE210:Geography Education.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDGE 210 [Min Grade: D]

Teacher Education

Courses

EDUC 101 Foundations in Education I: A Historical and Philosophical Perspective 3.0 Credits
In this course students are introduced to pedagogical and philosophical concepts, theories, methods and procedures in the historical context of education in America. Students develop an understanding of how schools work and of the teaching/learning dynamic through required mentoring activities.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 102 Foundations in Education II: Contemporary Issues 3.0 Credits
In this course students continue their exploration into the pedagogical and philosophical concepts, theories, methods and procedures in the context of contemporary education in America. Students develop an understanding of how schools work and of the teaching/learning dynamic through required mentoring activities.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 105 Freshman Pedagogy Seminar 1.0 Credit
Education majors only. Addresses observation skills focusing on classroom dynamics, i.e., what is teaching/learning, changing roles of teachers, learning styles, study skills, mentoring, journal writing/analysis, and the use of portfolios.
College/Department: School of Education
Repeat Status: Can be repeated 3 times for NaN credits
Restrictions: Can enroll if major is EDUC and classification is Freshman.

EDUC 112 Integrative Instruction: Focus on World Geography 3.0 Credits
Through the study of geography, encourages students to find a meaningful framework for understanding the system of human culture as it exists over the surface of Earth. Explores the use of technology in education.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is EDUC.

EDUC 113 Organizational Structure of Secondary Schools 3.0 Credits
Students will explore the organizational structure of high school programs and acquire competence in designing learner-oriented communities of practice in the classroom to foster student achievement and overall well-being.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 123 [Min Grade: D]

EDUC 115 Reasoning about Numbers and Quantity (4-8) 3.0 Credits
Students will investigate number and quantity concepts, state and national teaching standards and appropriate pedagogical approaches to teaching such topics as; quantities, place value, whlel number, fractions and additive reasoning.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 120 Child Development I: Typical Development 3.0 Credits
This course addresses the multifaceted complexities of child development, through discussion of classic and emerging theories. Students will recognize and apply developmental domains of theory and research in the field of child development.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 121 Child Development II: Atypical Development 3.0 Credits
Students will apply knowledge of typical growth and development in childhood to those children whose development is atypical. Key topics include newborn screening, patterns in development and cognitive testing. This course requires additional field experience hours.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 120 [Min Grade: D]

EDUC 123 Adolescent Development 3.0 Credits
This course addresses the complexities of adolescent development, through discussion of theories. It uses research-based, real-world, and cross-cultural examples. It aims to foster the student's ability to recognize and apply connections among developmental domains, theory, and research with the field of human development. This course requires additional field experience hours.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 142 Special Education Foundations: Referral and Assessment 4.5 Credits
This course is an introduction to special education with specific emphasis placed on; the history of special education, legal and ethical means of assessment, translating data into the MDE and IEP processes and critical legal issues related to special education.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 201 Instructional Issues 3.0 Credits
This course explores and offers in-depth analysis of relevant theories relating to contemporary application of instructional issues, systems and design. The purpose is to provide theoretical, experimental and critical perspectives on instructional issues and design as it is applied in a number of educational venues.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 203 Design of Instructional Materials 3.0 Credits
This course provides an examination of instructional materials and their use in instructional programs for topics of their choosing. Discussion of current media and instructional equipment for effectiveness, specification and purchasing is included.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 205 Sophomore Pedagogy Seminar 1.0 Credit
Education majors only. Builds on the freshman seminar and incorporates service learning as an instructional strategy.
College/Department: School of Education
Repeat Status: Can be repeated 3 times for NaN credits
Restrictions: Can enroll if major is EDUC and classification is Pre-Junior or Sophomore .

EDUC 210 Early Language Development 3.0 Credits
Provides preservice teachers an overview of language development in the early years of a child's life from birth to age five, in the home and school settings. Topics include; phonological awareness, acquisition of phonetic knowledge, semantic understanding and syntactic use. This course requires additional field experience hours.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 216 Diversity and Today's Teacher 3.0 Credits
This course explores major issues related to the increasing diversity of students in elementary and secondary classrooms in the United States. The multifaceted challenges of teaching heterogeneous student populations.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 223 Teaching the Middle School Child 3.0 Credits
This course will explore the middle school environment, developmentally appropriate middle school programs, strategies for supporting students through the transition to middle school, and the impact of peer pressure on the middle school child. The course requires the candidate to apply theories learned in EDUC 123: Adolescent Development to the classroom setting.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 123 [Min Grade: D]

EDUC 236 Early Literacy I 3.0 Credits
This course examines research-validated literacy instruction and literacy interventions. Topics will include phonics, fluency, comprehension, vocabulary, and the reading-writing connection. Emphasis is placed on the scio-cultural aspects of reading. Focus is also placed on literacy instruction across the curriculum.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 240 Proportional Reasoning in Middle School 3.0 Credits
This course provides middle grade teachers with key mathematical ideas of proportional reasoning. Topics explored in this course include: measurement, quantities, relative thinking, unitizing, sharing and comparing, reasoning up and down, and rational number interpretations.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 244 Inclusionary Practices for Exceptional Students 4.5 Credits
This course will introduce how to manage instruction for students with diverse learning and behavioral profiles in the inclusive classroom. I t will address curricular, instructional, environmental adaptations/modifications and the use of technology to address students' needs. Other topics explored include; collaboration, co-teaching and practical/philosophical approaches to inclusion.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 142 [Min Grade: D]

EDUC 246 Literacy and Content Skill Development 4.5 Credits
This course offers a developmental approach for early identification of at-risk individuals and proceeds through literacy stages. Also, research, theory and practical research-supported instructional strategies will be provided for working with students. Literacy skills related to content areas will also be explored.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 142 [Min Grade: D] and EDUC 244 [Min Grade: D]

EDUC 256 Teaching Writing Grades 4-8 3.0 Credits
This course prepares the candidate to teach and assess writing effectively in grades 4-8. Formative and summative assessments in multi-genre writing will be learned and applied, including the use of Writing Folders and Portfolios.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 257 Content Area Reading (Grades 4-8) 3.0 Credits
This course prepares the pre-service teacher to teach and assess adolescents who are learning to read across multiple subject areas in grades 4-8. Students will explore textbooks, trade books, electronic texts and internet resources. Additional field experience hours are required for this course.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 258 Reading in the Content Areas 3.0 Credits
This introductory course is designed to help all (7-12) teacher candidates improve their students' reading, writing, research and discussion skills in school and for lifetime learning. The course will focus on important formats and strategies for learning to read and write well and to learn in any subject.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 265 Instructing English Language Learners 3.0 Credits
This course explores principles and theory of second language and literacy acquisition, billingualism, academic language competence and linguistics, and instructional approaches based on these principles. This course requires additional field experience hours.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 284 Teaching Life Science in the Middle School 3.0 Credits
Course designed to provide the developing middle grades teacher with skills to introduce life science content topics to middle school children, assess children's content knowledge, and develop a variety of hands-on strategies, effective pedagogy, and activities, mini-labs, and conceptual problems that can be implemented in middle grade classrooms.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: (BIO 161 [Min Grade: D] and BIO 162 [Min Grade: D]) or (BIO 102 [Min Grade: D] and BIO 104 [Min Grade: D])

EDUC 285 Teaching Physical Science in the Middle School 3.0 Credits
This course provides the developing candidate with an introduction to how content topics inclduing physical and chemical changes and properties of matter, motion and forces, sound, light, electricity, and magnetism are taught and assessed in the middle school. Candidates learn how to implement activities such as mini-labs and conceptual problems in the middle school setting.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 286 Teaching Earth & Space Science for Middle School 3.0 Credits
This course is designed to provide an introduction to how content topics of earth, plate tectonics, earthquakes, earth's atmosphere/weather and climate are taught and assessed in the middle school. Students will learn how to design age appropriate activities for the middle school setting.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 292 Science Methods for Middle School 3.0 Credits
This course examines planning science instruction to include inquiry and integrated concepts, developing authentic assessments, involving a variety of tools, creating and maintaining a safe laboratory and a learning environment that meets the needs of diverse learners in science education. This course requires additional field experience hours.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 284 [Min Grade: D] and EDUC 285 [Min Grade: D] and EDUC 286 [Min Grade: D]

EDUC 301 Introduction to Personalized Systems of Instruction 3.0 Credits
The student should be coaching or tutoring while taking this course. Covers the theory and practice of the Personalized System of Instruction and the Heuristic Diagnostic Learning approach. Includes emphasis on empowering students in teaching and learning by studying coaching strategies, instructional strategies, learning styles, student-coach interactions, current research, and applying PSI. Requires three hours per week of service comprised of one-to-one academic coaching. Students keep a weekly log of their coaching activities and a reflective journal about the academic coaching experience.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 302 Advanced Seminar In Personalized Systems of Instruction 3.0 Credits
An advanced seminar for students with coaching experience. Covers content knowledge, pedagogical knowledge, and curricular knowledge issues; management of students and problems encountered in coaching; instructional planning design; and issues such as individual differences in learning and motivation. Students maintain a weekly journal of their teaching experience and engage in a critical analysis of their teaching/ coaching experiences.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 301 [Min Grade: B]

EDUC 305 Junior Pedagogy Seminar 1.0 Credit
Education majors only. Continues further exploration of relationships among service learning, content knowledge, pedagogy knowledge, learner characteristics utilizing generic influences, special needs students, and motivation techniques.
College/Department: School of Education
Repeat Status: Can be repeated 2 times for NaN credits
Restrictions: Can enroll if major is EDUC and classification is Junior.

EDUC 306 Assessment of Young Children I 3.0 Credits
Students will gain an understanding of the role of the assessment process in early education. Students will explore evaluation procedures and classroom-based data collection strategies for young children in inclusive education settings. Course covers 3 major functions of assessment: program planning, program monitoring and program evaluation.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 307 Assessment of Young Children II 4.0 Credits
This course will provide candidates with an in-depth view of formal and informal evaluation procedures for young children and their families. Such procedures will be explored in the context of the function of assessment; screening, diagnosis/eligibility, program planning, and program evaluation.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 306 [Min Grade: D]

EDUC 310 Computer Applications in Teaching 3.0 Credits
Studies the unique characteristics of the microcomputer as an instructional tool in elementary and secondary school instruction. Provides students with an understanding of the instructional versatility and limitations of microcomputing through hands-on experience with applications in their subject-matter fields. Addresses issues concerning techniques for integrating computing into instruction.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 311 Computer Applications in Curriculum Development 3.0 Credits
This course presents major instructional design concepts that students will use in developing their own curricular materials. It describes various kinds of teacher-developed instructional tools in relation to appropriate instructional task or learning environment.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 310 [Min Grade: B]

EDUC 314 Science Teaching Methods 3.0 Credits
This course bridges theory and practice, providing hands-on experience in the application of constructivist learning theory to designing and delivering effective classroom experiences in the area of science.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 315 Secondary Science Teaching Methods 3.0 Credits
Methods for teaching middle and secondary school science are explored including strategies and technologies to support student learning as defined by the state and national science standards. Inquiry-based model of learning and assessment emphasized. Theory and practice bridged to provide hands-on experiences in application of constructivist learning theory and effective classroom experiences.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 317 Math Methods and Content: Early Childhood 3.0 Credits
Students will know and effectively deliver standards-based academic math content, based on age appropriate understanding, and individual and groups needs including a respect for the unique needs of all types of learners. This course requires additional field experience hours.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 318 Math Methods & Content 3.0 Credits
Course emphasizes diagnostic instruction in mathematics by allowing students to complete problems that their students will be expected to work, noting the error and correction process, as well as gaining an awareness of student difficulties in mathematics.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 319 Teaching Secondary Mathematics 3.0 Credits
This course emphasizes the major issues in learning and teaching mathematics in the secondary school. Topics will include instructional practices, learning theories, philosophies of assessment, and curriculum in the secondary school. Throughout the course, emphasis will be placed on the appropriate use of technology.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 320 [WI] Professional Studies in Instruction 6.0 Credits
This course offers field placement with practitioners in classroom environments appropriate to the student's certification area to provide instruction and experience in methodology, classroom management, and the opportunity to apply results of current research on effective teaching. This is a writing intensive course.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Cannot enroll if classification is Freshman

EDUC 321 Non-Field Experience Professional Studies in Instruction 3.0 Credits
Study of learning and developmental theories, developmental reading and reading in the content areas, student motivation, and the interrelationships among diverse populations within the school setting, and identification of instructional resources.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 322 Evaluation of Instruction 3.0 Credits
Permits students to acquire competence in new evaluation techniques, including portfolios, journals, performance assessments, individual and collaborative projects, and presentations. Covers qualitative and quantitative assessment used in measuring student achievement. Teaches techniques for grading and reporting pupils' classroom performance in cognitive, affective, and (where appropriate) motor tasks. The course is directed toward instruction in elementary and high school settings.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Cannot enroll if classification is Freshman

EDUC 323 [WI] Diagnostic Teaching 4.0 Credits
Requires students to integrate and apply theories of learning, curriculum, and pedagogy to instruction and heuristic diagnostic teaching. Focuses on the individual learner. Covers processes involved in learning mathematics and science in particular, and studies their applications in relation to individual differences among learners. Emphasizes developing strategies that prevent learning problems. This is a writing intensive course.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Cannot enroll if classification is Freshman
Prerequisites: EDUC 320 [Min Grade: B]

EDUC 324 Current Research in Curriculum & Instruction 3.0 Credits
Examines the theories and assumptions underlying various approaches to instruction for elementary and high school teaching. Included are areas such as a) knowledge acquisition and critical reasoning in mathematics and science, b) teaching general and specific skills as related to content material, c) study skills and abilities to learn, and d) the roles of memory and metacognition in learning. Explores these processes of human cognition and learning with particular attention to how conditions that foster them might be built into materials, pedagogy, and learning environments.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 325 Multimedia in Instructional Design 3.0 Credits
Imparts skills in selecting, using, and evaluating a range of instructional media, including interactive multimedia formats, in relation to educational goals and learner characteristics. Emphasizes presentation skills when using a variety of media to deliver instruction. Students design and write a software prototype as a group design project.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Cannot enroll if classification is Freshman
Prerequisites: EDUC 310 [Min Grade: B]

EDUC 326 [WI] Language Arts Processes 3.0 Credits
Studies the nature of language, including phonetic, semantic, and syntactic aspects of language development, and theories of language development. Applies contemporary research to processes and problems in teaching oral and written communication. Assumes that listening, speaking, writing, and reading in the content area are integrated processes and should be taught as such. This is a writing intensive course.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Cannot enroll if classification is Freshman

EDUC 327 Learning Disabilities 3.0 Credits
Course will address issues such as definition of learning disability, various types of learning disabilities and the general approaches to the assessment and treatment of learning disabilities.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 328 Language Arts Processes 4-8 3.0 Credits
This course develops knowledge and competencies for teaching adolescent literacy in grades 4-8. Students will use supportive contexts, diverse texts, ongoing assessments, and technology to engage learners in developing self-directed, life-long literacy skills across all disciplines.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 335 Engaging the Learner 3.0 Credits
This course provides multiple approaches to the critical linked processes of assessment, curriculum development, and inclusive instruction of all young children. Topics of study include: planning and preparation, using appropriate materials, scope and sequence and strategies for student-centered assessments.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 336 Early Literacy II 3.0 Credits
This course focuses on teaching strategies that are effective in developing students' writing abilities within a literacy rich environment. The interrelationship between reading and writing will be emphasized. Additional field experience hours are required for this course.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 236 [Min Grade: D]

EDUC 337 Learning Disabilities II 3.0 Credits
The focus of this course is to teach teachers how to manage instruction for students with special needs in the inclusive classroom. Inclusion of students with special needs is now the norm. The course will address curricular and instructional modifications and the use of technology in addressing learning needs. Legal issues pertaining to special education law will be a critical component.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 338 Expressive Arts for PK-4 3.0 Credits
The focus of this course is to teach educators to develop and incorporate relevant curriculum for the expressive arts (dance, music, theatre and visual arts) into the PK-4 classroom(s). Students will explore instructional strategies, modern technologies, stages of artistic development and multicultural art forms.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 347 Special Education Processes 4.5 Credits
This course focuses on the special education processes, including: screening, assessment, IEP development/monitoring and evaluation. the course will also focus on strategies for problem-solving, communication, collaboration and student monitoring techniques within the special education process.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 142 [Min Grade: D] and EDUC 244 [Min Grade: D]

EDUC 348 Emotional & Behavioral Support 4.5 Credits
This course focuses on both low and high-incidence emotional and behavioral problems encountered in general and special education environments. Specific emphasis will be on understanding of characteristics and interventions that work with the most challenging students.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 142 [Min Grade: D] and EDUC 244 [Min Grade: D]

EDUC 349 High Incident Disabilities 4.5 Credits
This course focuses on high-incidence disabilities, specifically learning disabilities and language disorders encountered in general and special education environments. Additional emphasis is placed on an understanding of characteristics and interventions that support these types of students.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 142 [Min Grade: D] and EDUC 244 [Min Grade: D]

EDUC 350 Low Incident Disabilities 4.5 Credits
The focus of this course is on curriculum development approaches, instructional strategies, and accommodations for students with low incident and moderate/sever disabilities such as; low vision and blindness, hearing impairments and deafness, deaf-blindness, severe health and physical disabilities, and traumatic brain injuries.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 142 [Min Grade: D] and EDUC 244 [Min Grade: D]

EDUC 351 Pervasive Developmental Disorders 4.5 Credits
The focus of this course will be pervasive developmental disorders (PDD), specifically; understanding of characteristics, instructional strategies and effective interventions. The course will also emphasize behavior reduction strategies that are consistent with a positive behavioral support approach for students with PDD.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 142 [Min Grade: D] and EDUC 244 [Min Grade: D]

EDUC 352 Integrating Technology for Learning & Achievement 4.5 Credits
This course is designed to teach educators how to integrate technology into instruction in general education and special education classes, specifically to support reading, writing and mathematics achievement. It also focuses on the use of technology for universal design for learning and using assistive technology with students with disabilities.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 142 [Min Grade: D] and EDUC 244 [Min Grade: D]

EDUC 353 Special Education: Methods & Practices 4.5 Credits
This course will focus on effective instructional strategies to meet the learning needs of students with disabilities. Specific emphasis will be places upon; lesson planning, unit planning, grouping strategies and collaboration with other teachers and staff in all delivery settings.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 142 [Min Grade: D] and EDUC 244 [Min Grade: D]

EDUC 355 Social Studies Teaching Methods 3.0 Credits
This course focuses on the effective, responsbile and ethical teaching of social studies in the elementary classroom. Topics include; perspectives of social studies, curriculum standards, unit development, assessment design, integrated curriculum and technology, and teacher decision-making.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 356 Secondary Social Studies Methods 3.0 Credits
Students will be able to identify content and appropriate pedagogy strategies for the various National Council for the Social Studies disciplinary standards for history, geography, civics, economics and psychology. Major curriculum movements and teaching diverse learners are also explored. Classroom-based experiences are required.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 405 Senior Pedagogy Seminar 1.0 Credit
Education majors only. Focuses on the teacher as a researcher. Presents descriptions of collaborations between university faculty and faculty from K-12 schools and discusses student involvement in learning and pedagogy issues.
College/Department: School of Education
Repeat Status: Can be repeated 2 times for NaN credits
Restrictions: Can enroll if major is EDUC and classification is Senior.

EDUC 410 Student Teaching 9.0 Credits
A 12-week field experience that approximates full time classroom teaching and related activities; it is designed to allow the candidate to demonstrate competencies necessary for certification.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Cannot enroll if classification is Freshman
Prerequisites: EDUC 323 [Min Grade: B]

EDUC 411 Family and Community Partnerships 3.0 Credits
This course focuses on the process of family assessment and intervention, issues of family and professional collaboration and diversity, and methods of promoting adult communication and management strategies. It applies knowledge of socio-cultural and political contexts as they relate to the family, culture and society.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 412 [WI] Student Teaching 12.0 Credits
A 12-week field experience that approximates full-time classroom teaching and related activities; it is designed to allow the candidate to demonstrate competencies necessary for certification. This is a writing intensive course.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is EDUC and classification is Senior.
Prerequisites: EDUC 323 [Min Grade: B]

EDUC 414 Special Education: Field Placement Seminar 9.0 Credits
This course is designed to develop special education teaching knowledge, skills and abilities through field placement, supervision and reflective practice. Activities include; journaling, best practice workshops and reflecting on relevant case studies.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 142 [Min Grade: D] and EDUC 244 [Min Grade: D] and EDUC 346 [Min Grade: D] and EDUC 347 [Min Grade: D] and EDUC 348 [Min Grade: D] and EDUC 349 [Min Grade: D] and EDUC 350 [Min Grade: D] and EDUC 351 [Min Grade: D] and EDUC 352 [Min Grade: D] and EDUC 353 [Min Grade: D]

EDUC 416 Introduction to Math Teaching Methods (4-8) 3.0 Credits
This course provides an introduction to learning and teaching mathematics to students in grades 4-8. Emphasis will be on fundamental ideas of number, operation and measurement. This course requires additional field experience.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 417 Advanced Math Teaching Methods (4-8) 3.0 Credits
In this course, students will view mathematics from the perspective of a teacher; how to represent topics to learners in meaningful ways, analyze a learner's reactions to mathematics instruction, and how to select activities that allow the learners to construct meaning, rather than memorize rules and procedures. This course requires additional field-based hours.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 416 [Min Grade: D]

EDUC 428 Cultural and Historical Significance of Mathematics 3.0 Credits
This course provides mathematics content and pedagogy for the teacher preparation program. Course is part of a state approved certification program.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 432 Algebraic Reasoning 3.0 Credits
This course provides middle school teachers with mathematical ideas of algebraic reasoning. Topics include understanding of multiplicative reasoning, integer addition and rational multiplication as algebraic operations, identity and inverse properties. Emphasis will be placed on the processes of thinking, doing, explaining writing and revising.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 433 Functions in Middle School Math 3.0 Credits
This course is structured to introduce specific content knowledge using a variety of activities and conceptual problems that can be implemented in the middle school classroom. Emphasis will be placed on the process of thinking, doing, explaining, writing and revising mathematics.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 436 Distance Learning 3.0 Credits
This course is intended to address issues surrounding distance learning and pedagogy, and help teachers become more intelligent creators of, more informed participants in, and all-around better users of distance education tools.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 475 Special Studies in Teacher Education 12.0 Credits
Covers various topics of particular interest to teacher education students.
College/Department: School of Education
Repeat Status: Can be repeated multiple times for credit
Restrictions: Cannot enroll if classification is Freshman

EDUC 499 Independent Study in Teacher Education 0.5-12.0 Credits
Covers various topics of particular interest to teacher education students, explored individually under guidance from instructional team member.
College/Department: School of Education
Repeat Status: Can be repeated multiple times for credit
Restrictions: Cannot enroll if classification is Freshman

Graduate Course Descriptions

Adult Education

Courses

EDAE 601 Foundations of Adult Education 3.0 Credits
This course examines the history of adult education, philosophical foundations, and the practice and the profession of the field. Philosophical, sociological and political foundations of adult education will be explored. Insights gained from the course will require students to develop philosophy and historical perspective papers.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDAE 602 Adult Learning and Development 3.0 Credits
This course examines lifespan development and its importance for practitioners and for practice in adult education. It examines development, learning and change and their relationship to andragogy. Further emphasis is placed on the importance of considering both contextual factors and individual differences when examining the process of learning in adults.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDAE 601 [Min Grade: C]

EDAE 603 Program Planning: Assessment & Evaluation of Adult Education 3.0 Credits
This course identifies and examines planning procedures and strategies that result in effective programs for adults learning in different settings. Program planning models, needs assessment, marketing, evaluation, and program management will be explored.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDAE 601 [Min Grade: C] and EDAE 602 [Min Grade: C]

EDAE 604 Instructional Design and Delivery Strategies 3.0 Credits
This course examines the core competencies of instructional design including analyzing needs, establishing performance objectives, delivering instruction, and managing instructional design projects. Models and processes for effective instructional design will be explored.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDAE 605 Instructional Skills for Teaching Adults Online 3.0 Credits
This course examines the principles, concepts, and tools for online instruction. Course content will build on and utilize knowledge gained in EDAE 604 Instructional Design and Delivery Strategies.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDAE 602 [Min Grade: C]

EDAE 606 Transformative Learning in Practice: Practicum in Adult Education 3.0 Credits
This course will provide field based experience in teaching, learning, or other appropriate adult education settings such as training, literacy, tutoring, curriculum development, etc. The goal of the practicum is to help adult education practitioners develop observations as well as critical and reflective skills appropriate to their work with adults.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is EDAE.
Prerequisites: EDAE 602 [Min Grade: C]

Educational Administration

Courses

EDAM 500 Leading in Urban, Rural and Suburban Settings 3.0 Credits
Provide school leadership experiences from three settings: urban, rural and suburban. The study of the similarities and differences within and across these types of schools to learn effective leadership skills and strategies will be examined. They will identify significant educational issues pertaining to these locales and use problem-solving skills, visitations, recent research and scenarios.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDAM 502 Resource Management, Allocation and Entrepreneurship 3.0 Credits
Students learn to find, use and allocate needed resources for their schools, communities, and organizations from experienced business and school leaders. Management and monitoring technology tools for optimum effective use of resources and how to gain entrepreneurship skills for expanding opportunities to gain new resources will be explored.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDAM 522 Evaluation & Assessment Competencies 3.0 Credits
Procedures and tools of research will be used to evaluate school programs. Program of evaluation in a school setting will be implemented. Essential assessment principles about the importance of implementing an assessment system, distinguish between assessments of learning versus assessment for learning, and about the types of student work samples needed for monitoring and reporting will be examined. Data on norm-referenced and other standardized tests in reporting achievement.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDAM 524 Mentoring and Collaborative Leadership 3.0 Credits
Research and experience on mentoring as a critical need in sustaining new teachers, creating renewal for experienced teachers, and building leadership capacity across the staff will be the focus of this course. Specific skills and concepts for effective mentoring/coaching of others and collaborative leadership will be examined. The importance of establishing learning communities in schools will be emphasized with a student's plan for induction within context of supportive school practices.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDAM 526 Interpreting & Evaluating Research & Achievement Data 3.0 Credits

Substantive opportunities for interpreting and evaluating different kinds of research with established criteria will be provided. Ways to lead school teams in analyzing, interpreting and evaluating student achievement data (from several sources, both formative and summative) to monitor student learning, to improve curriculum and instruction, to meet NCLB requirements and for reporting to the community. A balanced perspective in reviewing data from group achievement data to the collaborative analysis of an individual student's work over time will be explored.

College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDAM 522 [Min Grade: C]

EDAM 528 Research Methodology for Action Research 3.0 Credits

Provides rationale, theoretical constructs and methodology for conducting Action Research within a school and/or classroom setting. Significant practical applications for other school practitioners.

College/Department: School of Education
Repeat Status: Not repeatable for credit

EDAM 540 Action Research Project 3.0 Credits

Culminating course in MSEA program. Students will complete the written research project according to established criteria building from the four stages of Action Research completed in previous course work. The research will be shared in an article or summary form on the School of Education website.

College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDAM 528 [Min Grade: C]

Special Education

Courses

EDEX 542 Fundamentals of Special Education 3.0 Credits

This course provides an overview of the essentials of special education for today's teachers. Specific emphasis is placed on the history of special education, purposes of formal and informal assessments and current research on inclusive classrooms. Additional focus will be placed on legal/ethical considerations in testing and the translation of data. Field observation hours are required.

College/Department: School of Education
Repeat Status: Not repeatable for credit

EDEX 544 The Inclusive Classroom 3.0 Credits

The focus of this course is to teach teachers how to manage instruction for students with diverse learning and behavioral profiles in the inclusive classroom by examining normal and abnormal cognitive, physical, social, behavioral and language development of children. The course will address curricular, environmental and instructional adaptations in addressing students' needs. Field observation hours are required.

College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 542 [Min Grade: C]

EDEX 546 Literacy and Content Skill Development PreK-8 3.0 Credits

The focus of this course is literacy skill development in individuals at-risk for disabilities and with disabilities as well as causes and correlates of individual differences in reading ability. Research, theory, identification approaches and practical, research-supported instructional strategies will be provided for working with students.

College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 542 [Min Grade: C] and EDEX 544 [Min Grade: C]

EDEX 547 Special Education Processes PreK-8 4.5 Credits

This course focuses on special education processes available for students with disabilities in pre-kindergarten through grade 8. Specifically, this course provides an overview of child find, evaluation and education and IEP/IFSP development, implementation and monitoring concepts, as mandated by IDEA and Section 504 of the Rehabilitation Act of 1973. Students will apply special education process strategies such as collaboration, problem solving, progress monitoring and early dispute resolution techniques. Specific legal cases will be reviewed throughout the term.

College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 542 [Min Grade: C] and EDEX 544 [Min Grade: C]

EDEX 548 Emotional and Behavioral Support of Individuals with Disabilities 4.5 Credits

This course focuses on both low and high-incidence emotional and behavioral problems encountered in general and special education environments. Specific emphasis will be on the understanding of characteristics and interventions that work with the most challenging students. Research in the area of behavior disorders will also be introduced. Field observation hours are required.

College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 542 [Min Grade: C] and EDEX 544 [Min Grade: C]

EDEX 549 High Incident Disabilities 4.5 Credits

This course focuses on high-incidence disabilities, specifically learning disabilities and language disorders encountered in the general and special education environments. Additional emphasis is placed on an understanding of characteristics and interventions that support that support these students. Research-based instructional strategies and accommodations will also be discussed. Field observation hours are required.

College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 542 [Min Grade: C] and EDEX 544 [Min Grade: C]

EDEX 550 Teaching Individuals with Low Incident Disabilities 4.5 Credits

This course focuses on curriculum development approaches, instructional strategies and accommodations for students with low incident and moderate/severe disabilities, with emphasis on age-appropriate functional education in school and community based programs. Additional emphasis is placed on disabilities such as low vision and blindness, hearing impairment and deafness and severe health and physical disabilities. Field observation hours are required.

College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 542 [Min Grade: C] and EDEX 544 [Min Grade: C]

EDEX 551 Pervasive Developmental Disorders 4.5 Credits
The focus of this course will be pervasive developmental disorders (PDD), specifically, understanding of characteristics, instructional strategies and effective interventions. The course will also emphasize behavior reduction strategies that are consistent with a positive behavioral support approach for students with PDD. Research in the area on PDD will also be emphasized. Field observation hours are required.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 542 [Min Grade: C] and EDEX 544 [Min Grade: C]

EDEX 552 Integrating Technology for Learning & Achievement 4.5 Credits
This course is designed to teach educators how to integrate technology into instruction to support achievement in general and special education classes, specifically to support reading, writing and mathematics achievement. It also focuses on the use of technology for universal design for learning and using assistive technology with students with disabilities. Field observation hours are required.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 542 [Min Grade: C] and EDEX 544 [Min Grade: C]

EDEX 553 Special Education: Methods & Practices PreK-8 4.5 Credits
This course will focus on effective instructional strategies to meet the learning needs of students with disabilities. Specific emphasis will be placed upon lesson planning, unit planning, grouping strategies and collaboration with other teachers and staff in all delivery settings. Students choose, evaluate and construct instructional materials. Field observation hours are required.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 542 [Min Grade: C] and EDEX 544 [Min Grade: C]

EDEX 556 Characteristics & Methods: Autism 3.0 Credits
This course furthers the student's understanding of the diagnosis of Autism. Students will explore current issues and best practices in providing educational services that meet the unique characterstics and needs of students with Autism. Current theories in the field of Autism will be a focus of the course.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 551 [Min Grade: C]

EDEX 558 Characteristics & Methods: High Functioning Autism 3.0 Credits
This course furthers the student's understanding of the diagnosis of High-Functioning Autism and how it is or is not different from Asperger's Syndrome. Students will explore current issues and best practices in providing educational services that meet the unique characteristics and needs of students with High-Functioning Autism and Asperger's Syndrome.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 551 [Min Grade: C]

EDEX 560 Communication & Language Interventions: Autism Spectrum Disorders 3.0 Credits
The focus of this course is on communication and language skills, deficits, needs, and interventions for students with Autism Spectrum Disorders (ASD). Students will gain an understanding of the development of communication and interventions for students with ASD who are non-verbal, limited verbal, or verbal. Social pragramatics will be covered.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 551 [Min Grade: C]

EDEX 562 Behavior & Sensory Support: Autism Spectrum Disorders 3.0 Credits
The focus of this course is on specific behavioral and sensory issues of students with Autism Spectrum Disorders (ASD). Students will gain skills in research-based interventions for the behavioral issues and sensory needs of students with ASD. Close attention will be paid to prevention strategies that are effective for ASD.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 551 [Min Grade: C]

EDEX 563 Special Education: Methods & Practices 7-12 4.5 Credits
The focus of this course is on instructional strategies to meet the unique learning needs of secondary students with disabilities. Lesson planning, unit planning and grouping strategies are key elements in this course. Collaboration with other teaching and non-teaching staff members in all delivery settings is emphasized. Students choose, evaluate, construct and implement instructional materials. A formal evaluation will be required. Emphasis will be placed on student transition post high school.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 542 [Min Grade: C] and EDEX 544 [Min Grade: C]

EDEX 566 Literacy and Content Skill Development 7-12 3.0 Credits
The focus of this course is literacy skill development of adolescents at-risk for reading disabilities and adolescents currently identified with reading disabilities. The course will teach a variety of instructional interventions and strategies for improving student comprehension in the content areas. The course will also focus on improving vocabulary, fluency, and motivation in adolescents who struggle with reading. Writing strategies and common core standards will be addressed. The course ends with progress monitoring tools in order to determine the success of the interventions and strategies.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 542 [Min Grade: C] and EDEX 544 [Min Grade: C]

EDEX 567 Special Education Processes 7-12 4.5 Credits
This course focuses on the special education processes available for students with disabilities in grades 7 through 12. Specifically, the course provides an overview of the child find system, evaluation, education and transition processes in the development of an Individualized Education Program (IEP), and implementation and monitoring concepts as mandated by IDEA and Section 504 of the Rehabilitation Act of 1973. Students will apply special education process strategies such as collaboration, problem solving, progress monitoring and early dispute resolution techniques. Specific legal cases will be reviewed.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 542 [Min Grade: C] and EDEX 544 [Min Grade: C]

EDEX 570 Integrating Assistive Technology for Individuals with High Incident Disabilities 3.0 Credits
This course is designed to teach educators how to integrate assistive technology into instruction to support achievement in general and special education classes for students with disabilities in high incidence programs.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 552 [Min Grade: C]

EDEX 572 Integrating Assistive Technology for Individuals with Low Incident Disabilities 3.0 Credits
This course is designed to teach educators how to integrate assistive technology into instruction for students with low incidence disabilities, including communication impairments, intellectual disabilities, autism, and physical disabilities.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 552 [Min Grade: C]

EDEX 600 Family, School and Community Engagement in Special Education 3.0 Credits
This course is designed to provide an understanding of how to effectively implement the spirit of the Individuals with Disabilities Education Act (IDEA) and Section 504, using a collaborative approach among families, educators, and service providers. Specifically, this course focuses on the structure and operation of efficacious collaborative teams, facilitating co-educator partnerships and integrating internal and external supports through positive family engagement.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: (EDEX 547 [Min Grade: B] or EDEX 567 [Min Grade: B]) and EDEX 710 [Min Grade: B]

EDEX 601 Special Education Advocacy 3.0 Credits
This course is designed to provide students with an opportunity to explore and master collaborative advocacy practices critical to the special education process.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: (EDEX 547 [Min Grade: B] or EDEX 567 [Min Grade: B]) and EDEX 600 [Min Grade: B] and EDEX 710 [Min Grade: B]

EDEX 602 Special Education Dispute Resolution and Skills Training 3.0 Credits
This course is designed to provide a comprehensive understanding of special education dispute resolution opportunities and training in the communication skills necessary to successfully participate within each of those opportunities.
College/Department: Antoinette Westphal College of Media Arts Design
Repeat Status: Not repeatable for credit
Prerequisites: (EDEX 547 [Min Grade: B] or EDEX 567 [Min Grade: B]) and EDEX 600 [Min Grade: B] and EDEX 710 [Min Grade: B]

EDEX 610 Action Research for Special Education Teachers I 4.5 Credits
This course will introduce action research, a form of self-reflective systematic inquiry by practitioners on their own practice. The goals are the improvement of practice, a better understanding of practice, and an improvement in the situations where practices are carried out. Findings are examined: to support school/instructional change.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDEX 611 Action Research for Special Education Teachers II 1.5 Credit
In this second course in action research sequence, students will come to class with data from the classroom. The class will focus on the issues pertaining to the ethics of data collection, data anaylsis and interpretation, and writing the action research study.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 610 [Min Grade: C]

EDEX 630 Fundamental Elements of Behavior Change 4.5 Credits
This course is designed to provide students with an understanding of behavioral processes as described and defined by the behavior analytic orientation of psychology. Students will learn the terminology associated with operant and classical conditioning including understanding the difference between a procedure and a process, reinforcement, extinction, punishment, association, conditioned stimulus and unconditioned stimulus.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDEX 631 Measurement and Experimental Design 4.5 Credits
Graduate level intensive introduction to research methods in behavior analysis. The empirical methods of inquiry used in behavior analysis are substantially different than those used in traditional psychology. Course design provides knowledge of the concepts and issues related to single-subject design as used in applied behavior analysis research. Topics include the distinction between single subject and group research designs, issues related to reliability and validity, data collection and analysis techniques, treatment integrity and other ethical and professional issues.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 630 [Min Grade: B]

EDEX 632 Behavioral Assessment and Functional Analysis 4.5 Credits
Course provides knowledge and skills of behavioral assessment and methodologies for evaluating the effectiveness of interventions. First half of course explores range of assessment techniques in a variety of settings including direct observation/data collection methods, data analysis, functional assessment, stimulus preference and reinforcer assessments, and ethical and professional issues. Second half focuses on functional analysis and history of and variations to the methodology. Relationship between assessment techniques and development of least-restrictive but most effective behavioral intervention explored.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 630 [Min Grade: B]

EDEX 633 Behavioral Interventions 4.5 Credits
This course is designed to provide the student with advanced knowledge of behavioral interventions designed for both skill acquisition and reduction purposes. Considerations of ethical, social, and cultural variables affecting the selection and effectiveness of intervention strategies will also be highlighted. The course readings and writing assignment will provide students with the skills and opportunity to critically evaluate various intervention procedures and identify opportunities and methods to promote generalization and maintenance of treatment outcomes.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 630 [Min Grade: B]

EDEX 634 Consultation, Systems Change and Supervision 4.5 Credits
This course is designed to provide the knowledge and skills necessary to effectively consult with education, mental health and behavioral health staff working in community settings. The course is designed to familiarize students with theories and models of adult behavior change, and the procedures and processes used in an indirect-service delivery model. Students will be expected to apply the knowledge acquired through the consultative process and with a consultee.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 630 [Min Grade: B]

EDEX 635 Ethical Considerations and Professional Conduct 4.5 Credits
Addresses the American Psychological Association's Ethical Principles of Psychologists and Code of Conduct, and the Behavior Analysis Certification Board's Ethical Principles and Ethical Guidelines. These guidelines and principles are required readings for those engaging in psychological services and to sit for the National Certification in Behavior Analysis: 1. Ethical Principles of Psychologists and Code of Conduct and 2. Guidelines for Responsible Conduct for Behavior Analysts including Professional Disciplinary and Ethical Standards, Ethical Complaint Process, and summary of possible Disciplinary Actions.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDEX 630 [Min Grade: B]

EDEX 700 Practicum in ABA 1.0-4.0 Credit
This course is designed as a 1-4 credit practicum placement. Course instructors and the practicum coordinator will support the placement of Drexel ABA master's students in mental health, behavioral health, educational and rehabilitation services settings in the region. In coordination and cooperation with agency staff responsible for the on-site supervision, students will contribute to the discussion and implementation of evidence-based behavior analytic practices within multi-disciplinary team settings. Students will be expected to keep a daily journal recoding their activities, complete a reflection paper and.
College/Department: School of Education
Repeat Status: Can be repeated 7 times for 28 credits

EDEX 710 School Law & Policy in Special Education 3.0 Credits
This course provides an overview of the legal rights of students and families in the field of special education. Students will explore the source, history, current status, and litigation affecting special education. This course relates equal protection and procedural due process to school practices and policies affecting students with disabilities.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 544 [Min Grade: C]

EDEX 712 Instructional & Curriculum Leadership in Special Education 3.0 Credits
This course explores the administration of teaching/learning as a system in an inclusive school. Students learn leadership practices for universal screening, integrating assistive technology, research/evidence based-practices, and assessment systems responsive to and linguistic diversity. Special focus on leadership issues related to the urban, suburban, and rural context.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 544 [Min Grade: C]

EDEX 714 Development, Supervision, & Support: Special Education Leadership 3.0 Credits
This course provides an overview of personnel functions: recruitment, selection, orientation, support, evaluation, and development; interpersonal skills; motivation/change theorie; and the utilization of technology in the process. In addition, it will look at the unique issues of co-leading personnel with other administrators, collective bargaining, and the grievance process.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 544 [Min Grade: C]

EDEX 716 Organization & Administration of Special Education 3.0 Credits
This course is designed to provide an overview of the organizational practices for the administration of special education programs. Students will be introduced to special education revenue sources, compliance, child count, and budget monitoring as well as the special education plan.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 544 [Min Grade: C]

EDEX 721 Supervisor of Special Education Internship: Special Education Leadership 1.0 Credit

The student will be required to log at least 75 hours of mentored leadership activities during each quarter to total at least 300 hours and compile activities in a portfolio. This is the first of a four-term internship. The focus is on legal and policy issues in special education leadership.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 544 [Min Grade: C]

EDEX 722 Supervisor of Special Education Internship: Instructional Leadership 1.0 Credit

The student will be required to log at least 75 hours of mentored leadership activities during each quarter to total at least 300 hours and compile activities in a portfolio. This is the second of a four-term internship. The focus is on instructional leadership in special education leadership.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 544 [Min Grade: C]

EDEX 723 Supervisor of Special Education Internship: Collaboration & Personnel 1.0 Credit

The student will be required to log at least 75 hours of mentored leadership activities during each quarter to toal at least 300 hours and compile activities in a portfolio. This is the third of a four-term internship. The focus is on collaboration and personnel issues: special education leadership.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 544 [Min Grade: C]

EDEX 724 Supervisor of Special Education Internship: Finance & Management 1.0 Credit

The student will be required to log at least 75 hours of mentored leadership activities during each quarter to total at least 300 hours and compile in a portfolio. This is the fourth of a four-term internship. The focus is on school resources in special education.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 544 [Min Grade: C]

Geography Education

Courses

EDGE 510 Geography Education 3.0 Credits

This course is an introduction to geographic concepts, themes, and elements; designed to build a foundational understanding and analytical tools to examine the world from a geographic perspective. This course also emphasizes the unique qualities of world regions, and the spatial interaction of people, elements, and regions, as well as major regional and global problems and prospects.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGE 511 Geography Education: Teacher Laboratory 1.5 Credit

This course is designed to prepare post-baccalaureate pre-service and in-service PK-12 teachers to effectively help their future students better understand and analyze their world utilizing geographic concepts, themes, and elements. The weekly labs correspond directly to the content represented in EDGE 510: Geography Education.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDGE 510 [Min Grade: C]

Global & International Education

Courses

EDGI 500 Introduction to Global, International & Comparative Education 3.0 Credits

Exploration and Analysis of international and comparative education. Comparative method serves as the framework to understand comparative analysis. Theories of the state serves as the framework to understand global theories of education across cultures.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 502 Global, International and Comparative Education II 3.0 Credits

Exploration of tradition of national culture and its influence on education as well as an examination of educational and societal developments from a comparative cross-national perspective.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 504 History and Theory of Comparative Education 3.0 Credits

Examination of the history of comparative education development and higher education systems of different nations as well as analysis of issues related to comparative education research and the internationalization of globalization of postsecondary education.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 506 Comparative Higher Education Systems 3.0 Credits

Examination of higher education systems around the world including the cultural and historical bases of these systems and their spread across the globe.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 508 Understanding Research in International & Comparative Education 3.0 Credits

Examination of major concepts, methods and current trends in international and comparative education research.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 510 Culture, Society & Education in Comparative Perspective 3.0 Credits

Exploration of global education through concepts of culture, cultural relativism and ethnocentrism from a comparative perspective.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 512 Globalization and Educational Change 3.0 Credits
Exploration of issues related to economic globalization, politics of globalization, educational change, and the ways individuals and groups of people have changed and must further change to meet new global challenges in the 21st Century.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 514 Education and National Development 3.0 Credits
Exploration of the role of education as a primary agent of the socio-economic, cultural and technological advancement of developing countries in world regions.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 518 Analysis of Policy Issues in Global & International Education 3.0 Credits
Analysis of current public policy issues using various models of policy analysis across cultures and the globe with specific emphasis in creating, monitoring and evaluating frameworks to guide education sector policy work.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 520 Comparative Economics of Education 3.0 Credits
Focus on the principal issues in the economics of education and in education and economic development.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 530 Peace Education 3.0 Credits
Exploration of the conditions required for the construction of peace, the various forms of conflict, philosophical bases of human rights, discrimination with particular focus on curriculum reform that emphasizes knowledge, understanding and respect for cultures of others at the national/global level.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 532 International Organizations in International Education 3.0 Credits
Examine current international organizations, foreign assistance and their influence on educational policy. Both public and private organizations will be explored.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 533 Culture and Learning: From Violence Toward Peace 3.0 Credits
This course provides students with a critical understanding of the role of "culture" in influencing the dynamics of conflicts, including those that can be manifested in physical violence, as well as strategies for resolving or transforming such conflicts. Expressions of forms of discrimination, including prejudices, stereotyping, xenophobia, ethnocentrism and racism will be considered as important basic conceptual tools for peace educators in resolving intercultural conflicts.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 534 Conflict Resolution in an International Context 3.0 Credits
Examination of conceptual underpinnings of peace and conflict resolution and the paradigmatic models of conflict resolution currently practiced, as well as the substantive enquiry into a variety of approaches to building peace at local, national and global levels.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 535 Practices of Conflict Management & Peace Building 3.0 Credits
This course focuses on the development of practical and conceptual tools for the transformation of conflict on the micro-level. Taking the perspective that all participants will be involved in both conflict and 'peace processes' of different sorts and in different capacities throughout their future professional and personal lives, the aim is to engage with these processes through various situational learning exercises. This will provide an opportunity for the practical deployment and development of peace-building skills.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 536 Action Strategies for Peace Education 3.0 Credits
The major assumption of this course is that peace education is a challenge and a need to face not only in formal educational systems but also in community settings, non-formal and informal education. This course will examine the implementation of peace education programs linked to various settings, and analyze the challenges and issues of the different approaches of governments, communities, and other institutions. The course explores concepts such as citizenship, respect, learning community and interactive dialog.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 541 Special Issues in Sustainability 3.0 Credits
The environmental movement of the 1960s and 1970s started as a reaction to the ecological degradation of the environment; in the 1980s and 1990s the sustainability revolution emerged, but what is sustainable development and how does it apply to education? Through readings, videos and board discussions, this class will examine concepts that include ecological footprint, ecocriticism, advertisement awareness, technology appraisal, ecological intelligence, systems thinking, etc. There are various schools of thought regarding sustainability in three areas – the environment, the economy, and society.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDGI 600 Study Abroad Experience 3.0 Credits
From a city-base in a foreign country, student actively engages in a country's literary, artistic, and cultural traditions through firsthand encounters with literary specialists, authors, artists, and artisans. Homestay model serves as portal for enhanced opportunities for language acquisition, cultural analysis and interpretation.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is GIED.

EDGI 610 International Ecotourism & Education 3.0 Credits

From a city-base in a foreign country, student integrates the different perspectives of diverse natural, biological and social science disciplines to improve understanding of relationships between human societies and the natural environment.

College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is GIED.

EDGI 715 Co-op with Portfolio 1.5 Credit

Students participate in 10 weeks of a part time co-op to provide students with real-life, hands-on experience in international development. Weekly seminar component.

College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is GIED.
Prerequisites: EDGI 514 [Min Grade: C]

EDGI 716 GIE Co-op Experience with Seminar 4.5 Credits

Students continue to identify career fields and professional development opportunities in the field of global and international education through action research. Students gain practical skills through a co-operative learning assignments/placement and complete a culuminating project and/ or research as proposed in EDGI 715.

College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is GIED.
Prerequisites: EDGI 715 [Min Grade: C]

Higher Education

Courses

EDHE 500 Foundations of Higher Education 3.0 Credits

Study of historical growth and advancement of colleges and universities in U.S. from Colonial era to "virtual" public and private universities. Integrated overview of contemporary issues, policies and practices that characterize the operational environments of higher education institutions in the 21st century; including financial management, accreditation, curriculum, and institutional planning.

College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 510 Governance, Management & Administration in Higher Education 3.0 Credits

Organizational and administrative structures within the institutional hierarchy are explored as students examine the relationship between the university and the community it serves, the role of outreach in the modern university, and the role of faculty, staff, and student unions in academic operations and Risk Management.

College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 520 Student Development & Customer Service Management 3.0 Credits

Examines Academic Support and Student Life Services from customer satisfaction perspective including admissions, orientation, student health and counseling, and Greek life. Best practices in Customer Relationship Management are introduced.

College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 530 Higher Education Law 3.0 Credits

This course is designed to introduce students to the key laws and legal concepts that shape the operations of higher education institutions and the rights and responsibilities of administrators, faculty, staff and students. The course examines the issues involved in interpreting and applying laws and policies in a campus setting.

College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 540 Outcomes, Assessments & Continuous Improvement 3.0 Credits

Introduction to "typical" institutional accreditation process. Best practices presented for performing an institutional self-study, defining appropriate outcomes aligned with institution's strategic plan as well as introduction to appropriate quantitative and qualitative assessment methods.

College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 601 Strategic Planning & Evaluation 3.0 Credits

Provides a survey of the theory and practice of planning and evaluation in higher education and nonprofit organizations. Includes development of critical issues, goals, strategies, outcomes research planning, and protocol development.

College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 602 Managing Campus Operations 3.0 Credits

Detailed overview of key areas affecting campus operations that fall under Finance and Administration units including parking and transportation, non-exempt HR, facilities management, construction, risk management, and environmental health. Introduction to campus master plan development process for strategic planning.

College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 606 Higher Education Career Development 3.0 Credits

Provides understanding of career patterns of faculty, deans, vice presidents, provosts, and presidents while exploring academic employment markets of these professions. Traditional career paths, diverse points of entry in Higher Education and career development of faculty are explored as well as administrative roles of managing academic units, decision making and change implementation.

College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 610 Institutional Advancement 3.0 Credits
Introduction to history of Institutional Advancement, advancement structures and departments within private and public institutions including Alumni Relations, Communications, Government Relations. Focus on leadership and management of institutional advancement divisions. Key issues such as annual giving, campaigns, corporate/foundation relations are introduced.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 614 Alumni Relations 3.0 Credits
Comprehensive overview of leadership, management and organizational structures of alumni associations and models. Volunteer management is examined and campus relations highlighted including engagement options, international alumni and relationships with advisory/alumni boards.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 616 Institutional Communications, Marketing & Public Relations 3.0 Credits
Best practices in development of communications including marketing, public relations, and publications and creative services examined. Using research methodologies, exploration of brand management, market segmentation, message development and positioning, and market implementation.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 624 Capital Financing, Business Development & Asset Management 3.0 Credits
Examines the operations related to capital financial structure of higher education institutions including asset management, capital budgeting and fund raising and development. Comparison of business concepts between traditional higher education and private for profit and non-profit ventures.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 626 Public-Private Funding and Legal Issues 3.0 Credits
Introduces contemporary issues of related to financial management of public and private institutions, state-level planning, compliance issues, and budgeting matters of institutions of higher education. Legal differences between public and private institutions are examined.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 630 Philanthropy: Ethics and the Basics of Fund Raising 3.0 Credits
This course will serve as an introduction to all facets of fundraising: the annual fund, working with volunteers, writing successful proposals, capital campaigns, special events, board relations, donor research, corporate and foundation fundraising, and the ethics of nonprofit organizations. The world of fundraising is constantly changing. Requiring knowledge of the various components of fundraising is now essential for anyone wanting to work and advance in this field.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 634 Proposal Writing & Sponsored Project Management 3.0 Credits
Provides knowledge and skills required to acquire and manage sponsored projects from a variety of sources including learning and practicing process of developing proposal, organizational vision, goal setting, political realities, and budget in addition to compliance management and reporting.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 640 Foundations of Institutional Research 3.0 Credits
Provides comprehensive understanding of institutional research including roles and responsibilities. Students are introduced to database systems, statistical software and research methods to explore multifaceted links of institutional research to key divisions within higher education institutions.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 644 Student Assessments & Academic Program Evaluation 3.0 Credits
Exposes research tools and theoretical models related to assessing student outcomes and student success measures. Benchmarking and importance of evaluating academic programs and curricula to proactively respond to institutional reporting requirements and accreditation.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 646 Survey Tools, Statistical Software & Effective Reporting 3.0 Credits
Introduction of latest survey tools and statistical software for institutional research. Develops skills related to data gathering and effective reporting with use of latest application and support technologies to maximize research related to institutional effectiveness, program evaluation, and student outcomes.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 650 Introduction to Enrollment Management 3.0 Credits
Introduction to history of enrollment management and how it fits university system. Provides a strong understanding of enrollment process, organizational structure, federal and legislative issues, and importance of diverse student body.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 652 Enrollment Marketing, Recruitment & Retention 3.0 Credits
Comprehensive overview of principles and practices of strategic process including marketing and recruitment through graduation. Exposure to contemporary issues and legal problems in enrollment management.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 654 Financial Aid & Enrollment Management 3.0 Credits
Strategic relationships between financial aid and enrollment management are examined in order to secure desired student mix. Financial Aid guidelines and career management strategies are discussed to explore integration of traditional student financial aid and development of aid packages.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 656 Enrollment Management Database Systems & Management 3.0 Credits
Provides hands-on experience with database systems and programs that support enrollment management offices incorporating Microsoft suite application, SCT Banner, and People Soft. Collaborative assignments will require student manipulate, analyze and report data in different database systems. Strategies to "optimize" the recruitment mix to maximize state budget allocations are examined.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 660 Principles of Adult Education 3.0 Credits
This course explores in-depth analysis of relevant theories relating to contemporary application of adult learner materials and methods. Many adult education theories and practices are explored to provide the participants with a broad understanding of andragogy (the art and science of teaching adults) and how it related to their field.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 662 Critical Issues in Student Affairs 3.0 Credits
Profession of Students Affairs and most critical issues examined through use of current texts and articles. Topics include overview of the field, diversity, fiscal/budgetary issues assessment and staff training and development. Other topics include campus conduct, academic integrity, feedom of speech, sustainability and other current issues.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 663 Safety and Crisis Management 3.0 Credits
Examination of a broad range of campus safety and crisis management issues and exploration of safety and security strategies and consideration of essential elements of a model crisis response plan. Students will work toward understanding macro and micro safety and security issues and responses, and will design a sample crisis response model as the final course assignment.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 664 Strategies for Educational Success 3.0 Credits
Examines research on historical and contemporary responses to inequality in education; includes multicultural education, culture of poverty, single race/sex schools; addresses new trends and strategies affecting equity in education, including immigrants, sexual identity, age, gender, organizations, developmental education, and special needs learners (i.e older adult learners and students with disabilities).
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 668 Transformational Leadership 3.0 Credits
Reviews research about community college leadership, with an emphasis on transformational leadership, creation and implementation of a vision; develops skills in how to identify, interact, and mobilze key community organizations and constituents with an emphasis on board relations and community development.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 669 Diversity in Higher Education 3.0 Credits
Course examines research on issues of race, class, gender and disability in education in historical and contemporary contexts; emphasizes evidence-based data analysis, specifically qualitative analysis of data; introduces qualitative analysis of data, assumptions, designs, collection, analysis, and research ethics.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 680 Foundations of Evaluation 3.0 Credits
This course provides an overview of the field of evaluation. The course is designed to introduce the student to the basics of evaluation, including the uses of evaluation, formative and summative evaluation, evaluation standards, and various evaluation models. The course will also explore working with multiple stakeholders and the social, cultural, and ethical issues involved when conducting evaluation. The course will focus primarily on evaluation in educational settings.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 682 The Evaluation Process 3.0 Credits
This course provides the students with knowledge of the evaluation process. Students will learn about how to establish the goals for the evaluation, how to choose or develop various instruments, and identify data collection points. The course will also explore the various technologies and software to use in evaluation as well as what resources can be used to support the evaluation effort.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 684 Evaluation and Assessment in Practice 3.0 Credits
Evaluation and Assessment in Practice covers important aspects of the development and execution of a program evaluation plan, including complying with ethical standards, collaborating with stakeholders, building a project management plan, and effectively communicating results.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 714 Introduction to Research Methods 3.0 Credits
This course will introduce students to the process and conduct of educational research. Students will learn about the characteristics of specific research designs and will review a research study employing the specific design. Students will use established criteria given evaluate research studies. There will be an emphasis on the purpose and function of the review of the literature in educational research. Survey and interview design will also be discussed.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDHE 715 Higher Education Co-op I with Portfolio 1.5 Credit
The HE co-op I is the first half of a two quarter sequence in which
students work in administrative offices to incorporate their knowledge and
develop skills learned in the HE program. The first half of the co-op is
designed to prepare students to undertake the hands-on co-op projects
they will begin in the second quarter of the co-op.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is HE.
Prerequisites: AADM 710 [Min Grade: C]

EDHE 716 Higher Education Co-op II 4.5 Credits
Students are required to participate in a part-time co-op that lasts no less
than two quarters (20 weeks). The co-op is structured to provide students
with real-life, hands on experience in higher education. Students work
in administrative offices and incorporate the skills and tools they have
garnered in the MSHE program.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is HE.

Educational Lifelong Literacy

Courses

EDLS 501 Current Practices in Literacy 4.5 Credits
This course provides students with an opportunity to examine the current
practices and contemporary issues in PreK-12 reading, writing, and
literacy across the subject areas. Theoretical models will be scrutinized
for their implications in current curriculum and instruction. Assessment
and accountability will be reviewed. Additional field experience hours are
required for this course.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDLS 503 Models of Reading 4.5 Credits
This course presents an introduction to the psychological processes
of reading. Topics include psycholinguistics, sociolinguistics, literacy
development, cultural influcences of home and school, and attitude and
motivation in the classroom. Students will investigate research topics in
reading pedagogy. Additional field experience hours are required for this
course.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDLS 501 [Min Grade: C]

EDLS 505 Instruction in Early Literacy 4.5 Credits
This course emphasizes the development of oral language, early reading
skills. Learning theories and recent research looking at early literacy
issues of identification of at-risk diagnostic intervention strategies;
English Language Learning for dual-language students; appropriate
literacy environments; family and intergenerational literacy; and national
standards will also be explored.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDLS 501 [Min Grade: C] and EDLS 503 [Min Grade: C]

EDLS 507 Developmental Reading 4.5 Credits
This course bridges Children's Literature with child development and
learning theory, helping teachers understand how high-interest books
influence children's reading and writing development. Students will learn
how children build story knowledge, language knpwledge and word
knowledge. Field experience hours are required.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDLS 501 [Min Grade: C] and EDLS 503 [Min Grade: C]

**EDLS 509 Strategic Instruction for Adolescent Readers and Writers
4.5 Credits**
This course prepares teachers to teach reading/writing to adolescents in
grades 4-12. It provides knowledge of the literacy needs of adolescents,
with emphasis on strategies for content information. Fieldwork is required.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDLS 501 [Min Grade: C] and EDLS 503 [Min Grade: C]

EDLS 511 Designing a Research-based Literacy Program 4.5 Credits
This course prepares literacy specialists to design balanced reading
programs for PK-12 schools. It provides methods for organizing and
managing the classroom literacy environment, building reading centers,
writing centers, and technology centers for a literacy rich routine. This
course requires additional field experience hours.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDLS 501 [Min Grade: C] and EDLS 503 [Min Grade: C]

EDLS 515 Literacy Evaluation & Assessment 4.5 Credits
This course prepares teachers to select, administer and interpret
summative, and formative literacy assessments for the purposes of
evaluating reading and language arts instruction. This course requires
additional field experience hours.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDLS 501 [Min Grade: C] and EDLS 503 [Min Grade: C]

EDLS 519 Secondary Content Reading 4.5 Credits
This course prepares teachers to teach and assess adolescents who
are learning to read across the content areas. Students will gain an
understanding of the inclusive nature of reading texts -textbooks,
electronic texts, Internet resources, and multimedia materials. This course
requires additional field experience hours.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDLS 501 [Min Grade: C] and EDLS 503 [Min Grade: C]

**EDLS 521 Scaffolding Literacy for English Language Learners 4.5
Credits**
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDLS 501 [Min Grade: C] and EDLS 503 [Min Grade: C]

EDLS 529 Literacy Practicum 9.0 Credits
This course is designed to prepare candidates for literacy specialist and literacy coach/mentor responsibilities. Candidates will complete activities to prepare them to the professional journey into and beyond the classroom. This course includes additional field experience.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDLS 501 [Min Grade: C] and EDLS 503 [Min Grade: C] and EDLS 504 [Min Grade: C] and EDLS 505 [Min Grade: C] and EDLS 507 [Min Grade: C] and EDLS 509 [Min Grade: C] and EDLS 511 [Min Grade: C] and EDLS 515 [Min Grade: C] and EDLS 519 [Min Grade: C] and EDLS 521 [Min Grade: C]

Education Learning Technology

Courses

EDLT 536 Learning Sciences and Instructional Design 3.0 Credits
The learning sciences and learning by doing bring about a new instructional design emphasis on how the learning technologies provide scaffolding for collaborative learning and reasoning. Students will learn innovative learning techniques and develop an experiential learning design such as, problem-based learning, goal-based scenarios, role-plays, mini-games and simulations.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is EDLT.

EDLT 537 Technologies for Performance Support 3.0 Credits
This course focuses on online performance support systems, job aids, and assessment tools for e-portfolios, authentic assessments, and data collection to meet performance requirements in education and business. Students will have experience in designing embedded interventions for information help, procedural support, feedback and tracking goals, and develop their own e-portfolio.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is EDLT.

EDLT 538 New Media Literacies 3.0 Credits
Students will learn how new media are changing the dimensions of school literacies and challenge traditional ways of learning and communicating. Students will use action research to study current literacies, collaboratively explore and analyze a range of media texts, and design meaningful media-related literacy learning experiences across the curriculum.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is EDLT.

EDLT 539 EDLT Co-op Seminar Course I 1.5 Credit
The first of a two course sequence in which the student proposes and arranges for a party-time co-op experience/project in the field of learning technologies. In the weekly seminar, students share journal entries, do assigned readings and participate in discussions.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is EDLT.
Prerequisites: EDLT 536 [Min Grade: C] and EDLT 537 [Min Grade: C] and EDLT 538 [Min Grade: C]

EDLT 540 EDLT Co-op Seminar Course II 4.5 Credits
Students implement co-op/capstone project proposed in EDLT 539 to apply knowledge, skills, principles and experiences from the learning technologies coursework and field experiences through action research. Students gain practical skills through culminating, comprehensive ePortfolio based on explicit criteria including samples of work in the co-op experience/project and formally present it and the experience to a panel of professionals.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is EDLT.
Prerequisites: EDLT 539 [Min Grade: C]

EDLT 541 Foundations of Game-Based Learning 3.0 Credits
Students explore the rationale of game studies, the history of games and learning, the role of digital media, and the social nature of games as an affinity space for social learning. Students demonstrate their understanding of why games are powerful environments for learning, identity formation, and motivation.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDLT 542 Research in Motivation & Game-based Learning 3.0 Credits
This course introduces students to research in game-based learning and the role of motivational theories associated with games and player styles. Students conduct research on existing games to identify the motivational and learning factors. The course provides a foundation for incorporating the role of motivation for engaging learning.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDLT 543 Play & Learning in a Participatory Culture 3.0 Credits
Students examine games, emerging media, and learning in the context of participatory culture. Students focus on play, its role in learning in social spaces, and the current research around these practices. Students study the issues relating to how schools, organizations, and society are responding to the challenges of emerging technologies.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDLT 544 Integrating Games & Pedagogical Content Knowledge 3.0 Credits
Students use the technological, pedagogical and content knowledge (TPACK) educational technology framework. Students explore game design systematically by framing game genres as forms of pedagogy as they consider educational content. Students demonstrate their understanding of the interplay of technology, pedagogy, and content in the game environment.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDLT 545 Design & Development of Learning Games I 3.0 Credits
This course introduces students to the design process of learning games. Students will engage in the iterative design research process through rapid prototyping, play-testing, and learning. Students will work in design teams to experience the process and how to apply learner-centered design principles.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDLT 544 [Min Grade: C]

EDLT 546 Design & Development of Learning Games II 3.0 Credits
This course engages students in the design of a framework for their capstone project using techniques learned in EDLT 545: Design/Dev Learning Games I. Students work in teams to develop a detailed learning games framework.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDLT 545 [Min Grade: C]

EDLT 547 Capstone Project I 1.5 Credit
This capstone course is the first part of an independent study where students engage in designing a framework and conducting research. Each student researches a game concept and develops a design framework. Research includes user research and technological, pedagogical and content theories to create the foundation for their learning game.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDLT 546 [Min Grade: C]

EDLT 548 Capstone Project II 4.5 Credits
This capstone course is the 2nd part of an independent study where students engage in a design and development project based on their design framework. Students submit documents, conduct play testing, report on the testing results, write a descriptive analysis of their worked example, and present their game prototypes.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDLT 547 [Min Grade: C]

EDLT 550 Introduction to Instructional Design 3.0 Credits
Students examine the research and theory of instructional design models and formats in educational, corporate, and workplace settings. Students identify the interrelationships of context, technology and media resources, learner needs and goals, and learning and assessment strategies through case study analysis. Students design an action plan for a learning need.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDLT 554 Learning with Social Media and Mobiles 3.0 Credits
Students learn to use social media tools based on a more relevant pedagogy of 21st century learning and change. Students examine the culture of connectivity and networking, use mobile learning strategies and role play, and design an action plan that incorporates social media for learning outcomes.
College/Department: School of Education
Repeat Status: Not repeatable for credit

Educational Policy

Courses

EDPO 620 Education Policy: Concepts, Issues, and Applications 3.0 Credits
Examines concept of "policy" as it relates to education and educational institutions and their governance and practices. Related issues and applications that drive current national and global forces are explored with applications to education. Applied learning component of the course requires student to identify, research and apply understandings of both "policy" and current issues.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDPO 624 Shaping of American Education Policy: Global Forces 3.0 Credits
This course develops and deepens understanding of impact of education policies and how in combination they hold the potential for transforming American education. Learning activities encourage investigation, analysis, and speculation about educational policies and the three forces that shape them: global forces, public interests, and politics.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDPO 628 American Educational Policy and U.S. Competitiveness 3.0 Credits
Through the lens of educational policy, this course will explore the ties between K-12 education, higher education and lifelong learning on the one hand and economic and workforce development on the other hand. Linkages and policies will be examined in the contexts of what "global competitiveness" means at the national, state, and local levels.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDPO 632 Ethics in Educational Policy Making 3.0 Credits
The critical nature of ethics in educational policy-making is closely examined through a series of intersecting elements. A foundation of understanding is created by study of the concept of ethics and by practicing ethical decision-making strategies. Critical literature from the fields of ethics and of policy-making frame an investigation of how educational policy-making is impacted by global, technological, and demographic forces.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDPO 636 Access & Equity in Educational Policy Making 3.0 Credits
Researched and studied is the myriad of phenomenon that can deny individuals full access to education. Critical analysis of past and present educational policies and the attempts to implement them reveal how legislators and educators have attempted to insure access and equity. A chosen issue in access and equity is researched and projections are made about how policy-makers might address it.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDPO 640 Educational Policy-Making Tactics & Influence 3.0 Credits
Methods for analyzing phenomenon that impact policy-making are
practiced. From this foundation of critical analysis, an understanding is
developed of the tactics needed for creating educational policies. Specific
means of exerting influence on policy-makers are practiced in this applied
learning course.
College/Department: School of Education
Repeat Status: Not repeatable for credit

Teacher Education

Courses

EDUC 505 Instructional Systems Design 3.0 Credits
This course explores and offers in-depth analysis of relevant theories
relating to contemporary application of Instructional Systems Design.
The purpose is to provide the student with theoretical, experimental and
critical perspectives on instructional design as it is applied in a number of
educational venues.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 506 Assessment of Young Learners 3.0 Credits
Candidates will demonstrate a thorough understanding of the role of the
assessment process in early childhood education. The content will provide
graduate candidates with an in-depth review of informal evaluation
procedures and classroom-based data collection strategies for young
children in inclusive early child care and education settings.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 521 [Min Grade: C]

EDUC 510 Computer Applications In Teaching 3.0 Credits
Analyzes issues concerning uses of computing in instruction. Evaluates
the microcomputer as an instructional aide in elementary and secondary
classroom instruction. Provides hands-on experience with applications
in students' subject matter fields to develop competence in selecting
and integrating appropriate instructional software for computers found in
today's classrooms, with particular focus on the Macintosh.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 511 Computer Skills for Teachers 3.0 Credits
Presents major instructional design concepts students will use in
developing their own curricular materials. Describes and discusses
various kinds of teacher-developed instructional tools in relation to
appropriate instructional task or learning environment. Primarily uses the
Macintosh microcomputer and appropriate authoring systems. Provides
extensive hands-on instruction and experience using various authoring
systems to create many different kinds of instructional tools. Students
must be experienced with the Macintosh.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 510 [Min Grade: C]

EDUC 512 Focus on World Geography 3.0 Credits
Through the study of geography, students will be encouraged to find a
meaningful framework for understanding the system of human culture
on Earth and become familiar with the vast interactive system involving
humanity and its natural environment.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 513 Elementary Science Teaching Methods 3.0 Credits
Methods for teaching elementary school science are explored including
strategies and technologies to support student learning as defined by the
state and national science standards. Inquiry-based model of learning
and assessment emphasized. Theory and practice bridged to provide
hands-on experiences in application of constructivist learning theory and
effective classroom experiences.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 514 Science Teaching Methods 3.0 Credits
This course bridges theory and practice, providing hands-on experience in
the application of constructivist learning theory to designing and delivering
effective classroom experiences.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 515 Adolescent Learners in Secondary Schools 3.0 Credits
Enables student to understand the organizational structure of high
school programs as related to the diverse needs of the adolescent
learner. Students will acquire competence in designing learner-oriented
communities of practice in the classroom to foster achievement and
overall well-being of the secondary learner.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 516 Diversity and Today's Teacher 3.0 Credits
This course explores major issues related to the increasing diversity
of students in elementary and secondary classrooms in the United
States. The multifaceted challenges of teaching heterogeneous student
populations (and strategies for).
College/Department: School of Education
Repeat Status: Not repeatable for credit

**EDUC 517 Math Methods & Content: Early Childhood PK-4 3.0
Credits**
Candidates will develop an in-depth understanding of how to effectively
deliver standards-aligned academic math content-based on age
appropriate understanding and individual and group needs including an
appreciation and respect for the individual differences and unique needs
of all children in the PK-4 setting.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 521 [Min Grade: C]

EDUC 518 Mathematics: Method & Content 3.0 Credits
Course emphasizes diagnostic instruction in mathematics by allowing
students to complete problems that their students will be expecting
to work, noting the error and correction process as well as gaining an
awareness of student's difficulties in mathematics.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 519 Teaching Secondary Mathematics 3.0 Credits
The course focuses on major issues in learning and teaching mathematics in the secondary classroom. Topics will include instructional practices, learning theories, assessment and current research in math. This course also includes multimedia and field-based experiences.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 520 Professional Studies in Instruction 3.0 Credits
For students who lack professional-level classroom teaching in grades K to 12. Examines and develops skills in instructional planning, pedagogy, motivation, classroom management and discipline, interrelationships among diverse populations within school settings, and identification of instructional resources. Discusses current principles of developmental and learning theories and instructional design applied to teaching.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 521 Typical and Atypical Development in Early Childhood Education 3.0 Credits
This course addresses the multifaceted complexities of typical and atypical child development, through the discussion of classic and emerging theories. The primary aim of the course is to foster the students' ability to recognize and apply the connections among developmental domains and of theory and research with educational practice. The readings and class assignments make use of research-based, real-world, and cross-cultural examples.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 522 Evaluation of Instruction 3.0 Credits
Enables the student to acquire competence in evaluation techniques including portfolios, journals, performance assessments, individual and collaborative projects, and presentations. The course covers qualitative and quantitative assessment used in measuring student achievement. Techniques for grading will also be explored.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 523 Diagnostic Teaching 4.0 Credits
Focuses on teaching that attempts to identify the student's level of performance and all the relevant information that contributes to that performance. Involves analysis of material to be learned and implementation of instruction that integrates the learner's cognitive and emotional development with the appropriate part of the knowledge or task to be learned. Investigates various learning styles, including field-dependent/independent, convergent/divergent thinking, right/left brain activity, reflective/impulsive personalities, risk-taking/cautious, and attention to locus of control. Includes analysis and application of generic influences on cognitive, social, emotional, psychomotor, and physical aspects of learning. Investigates curriculum in terms of its psychological nature and selection and development of instructional strategies that enhance learning and prevent learning problems. Provides opportunities to work with elementary and secondary school students in the Drexel Diagnostic Mathematics Learning Laboratory.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 520 [Min Grade: B]

EDUC 524 Current Research in Curriculum & Instruction 3.0 Credits
Examines the relationship of curricula and instruction to current research in learning and knowledge construction, developing higher-order thinking in specific disciplines and content areas, and the role of understanding and metacognition in learning. Complex problems of pedagogy are identified and analyzed (e.g., interdisciplinary curricula, team teaching, collaborative learning), with attention to designing learning goals and outcomes with effective instructional strategies.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 525 Multi-Media Instructional Design 3.0 Credits
Investigates learning theory and its implications for interactive multimedia formats, including the relationship of instructional design principles to selection of media elements (text, video, sound, animation, and graphics) for high-quality design. Examines human-computer interface principles, navigation features, and visual thinking using a wide range of educational software examples. Criteria for software assessment and virtual classrooms are reviewed. Students design and write a software prototype as a group design project. Complex issues and concepts in technology and education are analyzed.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 526 Language Arts Processes 3.0 Credits
Applies contemporary research to processes and problems in teaching oral and written communication, with the basic assumption that listening, speaking, writing, and reading are integrated processes and should be taught as such. Covers analysis and use of instructional strategies for teaching developmental reading and writing, reading and writing in content areas, written correspondence, research reports, journal writing, poetry, and appreciation of children's literature.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 527 Understanding Learning Disabilities 3.0 Credits
Addresses learning disability issues including types of learning disabilities and related general approaches to the assessment and treatment of them. Specific disorders discussed include dyslexia, dyscalculia, attention deficit hyperactivity disorder, social cognition deficit, and disorders of language and hearing.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 528 Cultural and Historical Significance of Mathematics 3.0 Credits
The course explores how mathematics reflects and influences the ideas and movements in culture, history, biography and philosophy. An emphasis on teaching methods is integrated throughout the course.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 529 Early Literacy 3.0 Credits
Course examines research-validated literacy instruction and literacy
interventions. Topics include; phonics, fluency, comprehension,
vocabulary, and the reading-writing connection. Significant emphasis is
placed on the socio-cultural aspects of reading: appreciating linguistic
diversity, integrating cultural narratives, building reading communities, and
motivating children through authentic reading and writing experiences.
College/Department: School of Education
Repeat Status: Not repeatable for credit

**EDUC 530 Advanced Techniques in Instruction & Assessment 3.0
Credits**
Major professional and educational issues associated with college
teaching are addressed. Provides multiple opportunities to develop and
enhance teaching skills, as well as exposure to alternative assessment.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 531 College Teaching & Communication Skills 1.0 Credit
This course addresses critical issues in college teaching and
communication skills. These are: what is learning, comparative
philosophies of education, understanding the adult learner, best practices
in integrating technology to enhance learning, methods of evaluation
student learning including performance-based assessments and
foundations for effective oral and written communication.
College/Department: School of Education
Repeat Status: Not repeatable for credit

**EDUC 532 Designing Virtual Communities for Staff Development -
Non-Field Experience 3.0 Credits**
Examines the impact of distance learning and multimedia technologies
on the educational systems of teachers, administrators, librarians, and
other professionals in schools responsible for technology and professional
development. Online discussion groups, video conferencing, and web-
based instruction will be used to form a virtual learning community. There
is no field experience component in this course.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is HRD.

EDUC 533 Designing Virtual Communities 3.0 Credits
Examines the impact of distance learning and multimedia technologies on
the educational systems of teachers and other professionals responsible
for technology and professional development. Online discussion groups,
video conferencing, and Web-based instruction will be used to form a
virtual learning community. This course includes a 20-hour internship for
ITS certification.
College/Department: School of Education
Repeat Status: Not repeatable for credit

**EDUC 534 Developing Educational Leaders Using Technology 3.0
Credits**
Addresses leadership and team building competencies that instructional
technologists need to work collaboratively with teachers, administrations,
parent groups, and the community. Will use technologies that facilitate
communication and team building. This course includes a 1-2 day field-
based research assignment.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 525 [Min Grade: B]

**EDUC 535 Researching & Evaluating Instructional Technology 3.0
Credits**
Course will focus on teaching and learning technology standards, general
applications of technology and basic technology and skills. Will examine
and critique educational software and learning technologies, and through
research, develop criteria for technology. This course includes a 1-2 day
field-based research assignment.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 522 [Min Grade: B]

EDUC 536 Distance Learning 3.0 Credits
The course explores pedagogical issues in distance learning. Readings
are integrated with hands-on use of the tools used to create distance
learning programs.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 537 Learning Disabilities II 3.0 Credits
The course focuses on how to manage instruction for students with
special needs in the inclusive classroom.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 538 English Teaching Methods 3.0 Credits
This course is designed to support the development of pre-service
teachers in the secondary English/Language Arts Classroom. Students
will be provided opportunities to integrate and apply theories of learning,
curriculum and pedagogy of English and L. Arts in the secondary
classroom. Additional classroom-based observation hours will be
required.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 539 Expressive Arts 3.0 Credits
The focus of this graduate course is to teach future educators to develop
and incorporate relevant curriculum for the expressive arts (dance, music,
theatre and visual arts), into the PK-4 classroom. Through observation,
curriculum development and assessment, educators will be able to
identify, administer, interpret and plan instruction for PK-4 learners.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 521 [Min Grade: C]

EDUC 540 Field Experience 3.0 Credits
Provides supervised field experience at a cooperating school designed to
develop skills in instructional planning, pedagogy, motivation, classroom
management and discipline, interrelationships among diverse populations
within school settings, identification of instructional resources, and
applications of current research on effective teaching.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 520 [Min Grade: B]

EDUC 542 Fundamentals of Special Education 3.0 Credits
This course provides an overview of the essentials of special education for today's teachers. Specific emphasis is placed on; the history of special education, purposes of formal and informal assessments and current research on inclusive classrooms. Additional focus will be placed on legal/ethical considerations in testing and the translation of data. Field observation hours will be required.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 544 The Inclusive Classroom 3.0 Credits
The focus of this course is to teach teachers how to manage instruction for students with diverse learning and behavioral profiles in the inclusive classroom by examining normal and abnormal cognitive, physical, social, behavioral and language development of children. The course will address curricular, environmental and instructional adaptations in addressing students' needs. Field observation hours will be required.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 542 [Min Grade: C]

EDUC 546 Literacy and Content Skill Development 3.0 Credits
The focus of this course is literacy skill development in individuals at-risk for disabilities and with disabilities as well as causes and correlates of individual differences in reading ability. Research, theory, identification approaches and practical, research-supported instructional strategies will be provided for working with students.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 542 [Min Grade: C] and EDUC 544 [Min Grade: C]

EDUC 547 Special Education Processes 4.5 Credits
This course focuses on special education processes, including; screening, assessment, IEP development/monitoring and evaluation. The course will also focus on strategies for problem-solving, communication, collaboration and student monitoring techniques within in the special education process. Specific legal cases will be reviewed throughout the term.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 542 [Min Grade: C] and EDUC 544 [Min Grade: C]

EDUC 548 Emotional & Behavioral Support 4.5 Credits
This course focuses on both low and high-incidence emotional and behavioral problems encountered in general and special education environments. Specific emphasis will be on understanding of characteristics and interventions that work with the most challenging students. Research in the are of behavior disorders will also be introduced.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 542 [Min Grade: C] and EDUC 544 [Min Grade: C]

EDUC 549 High Incident Disabilities 4.5 Credits
This course focuses on high-incidence disabilities, specifically learning disabilities and language disorders encountered in the general and special education environments. Additional emphasis is placed on an understanding of characteristics and interventions that support these students. Research-based instructional strategies and accommodations will also be discussed.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 542 [Min Grade: C] and EDUC 544 [Min Grade: C]

EDUC 550 Teaching Students with Low Incident Disabilities 4.5 Credits
This course focuses on curriculum development approaches, instructional strategies, and accommodations for students with low incident and moderate/severe disabilities, with emphasis on age-appropriate functional education in school and community-based programs. Additional emphasis is placed on disabilities such as low vision and blindness, hearing impairment and deafness and severe health and physical disabilities.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 542 [Min Grade: C] and EDUC 544 [Min Grade: C]

EDUC 551 Pervasive Developmental Disorders 4.5 Credits
The focus of this course will be pervasive developmental disorders (PDD), specifically; understanding of characteristics, instructional strategies and effective interventions. The course will also emphasize behavior reduction strategies that are consistent with a positive behavioral support approach for students with PDD. Research in the are of PDD will also be emphasized.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 542 [Min Grade: C] and EDUC 544 [Min Grade: C]

EDUC 552 Integrating Technology for Learning & Achievement 4.5 Credits
This course is designed to teach educators how to integrate technology into instruction to support achievement in general and special education classes, specifically to support reading, writing and mathematics achievement. It also focuses on the use of technology for universal design for learning and using assistive technology with students with disabilities.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 542 [Min Grade: C] and EDUC 544 [Min Grade: C]

EDUC 553 Special Education: Methods & Practices 4.5 Credits
This course will focus on effective instructional strategies to meet the learning needs of students with disabilities. Specific emphasis will be placed upon; lesson planning, unit planning, grouping strategies, and collaboration with other teachers and staff in all delivery settings. Students choose, evaluate and construct instructional materials.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 542 [Min Grade: C] and EDUC 544 [Min Grade: C]

EDUC 555 Social Studies Teaching Methods 3.0 Credits
Course prepares the preservice teacher in making appropriate decisions about students and instructional processes in the social studies classroom. Perceptions and perspectives as it relates to social studies instruction in the following areas are explored: curriculum standards, unit development, assessment design and construction, interdisciplinary/integrated curriculum planning, specific group strategies, individualizing techniques, instructional technology, and professional development.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 556 Secondary Social Studies Methods (7-12) 3.0 Credits
Course provides understanding of effective Social Studies methods in secondary classrooms. History of pedagogical debates within Social Studies, is examined to incorporate effective Social Studies teaching methods. Careful attention is given to the Common Core Standards for Social Studies. Requirements include 30 hours of field experience in a school setting to include at least two lessons taught independently. In order to participate students must have the necessary background clearances.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 515 [Min Grade: B]

EDUC 558 Reading in the Content Areas 3.0 Credits
This introductory course is designed to help all (7-12) teacher candidates improve their students' reading, writing, research and discussion skills in school and for lifetime learning. The course will focus on important formats and strategies for learning to read and write well and to learn in any subject.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 560 Conflict and Dispute Resolution 3.0 Credits
Examines the concept of conflict and means for its resolution as it occurs between individuals and within organizations. Provides foundational knowledge for professionals practicing in many fields and industries to resolve conflicts in positive ways. Students will examine obvious and hidden organizational conflict and the dispute resolutions systems available to resolve these issues. Includes skill devleopment techniques for dispute resolution to apply learned knowledge.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 561 Mediating and Resolving Conflict in School Settings 3.0 Credits
Current theory and research in the field of conflict resolution and mediation with focus on becoming familiar with evidence-based strategies applicable to challenging environments.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 565 Foundations in Instructing English Language Learners 3.0 Credits
This is a foundations course to prepare all pre-service teachers to work with English Lang. Learners. Focus will be on gaining an understanding of the linguistic, social and academic needs of ELLs and the roles and responsibilities of the classroom teacher in meeting those needs. Field-based observation hours will be required.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 566 Futures Studies in Education and the Workplace 3.0 Credits
Course explains and analyzes the field of futures studies including overview of the origins of futures studies, study of how futures studies methods are and can be utilized in education and a range of other industries, and techniques for developing strategic forecasts and plans. A critical approach is taken to enable an analysis of the field's strengths and weaknesses.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 601 Language, Learning and Teaching Portfolio 1.5 Credit
This course is designed to assist students in developing a professional Teaching English as a Second Language (TESL) Teaching Portfolio. In this course the students will focus on the TESL competencies that are covered in EDUC 602 and demonstrate through artifacts, reflections, activities and course work how they can directly relate the standard to the instructional setting.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 602 Language Learning & Teaching 3.0 Credits
This course introduces participants to foundational theory in both first and second language acquisition and instruction. The course explores how learners acquire language, what influences the learning process, and how instruction best aids that process. A practicum component includes observations of classrooms and tutorials of English language learners.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 603 Structure and Sound System Portfolio 1.5 Credit
This course is designed to assist students in developing a professional Teaching English as a Second Language (TESL) Teaching Portfolio. In this course the students will focus on the TESL competencies that are covered in EDUC 604 and demonstrate through artifacts, reflections, activities and course work how they can directly relate the standard to the instructional setting.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 604 Structure and Sound System of English 3.0 Credits
This course focuses on the structural features of the English language, including phonetic, phonological, morphological, syntactic and pragmatic features. In the practicum component, participants will collect and analyze language from both native and non-native speakers of English, using it to develop targeted structural exercises for English instruction.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 605 Design & Assessment Portfolio 1.5 Credit
This course is designed to assist students in developing a professional Teaching English as a Second Language (TESL) Teaching Portfolio. In this course the students will focus on the TESL competencies that are covered in EDUC 606 and demonstrate through artifacts, reflections, activities and course work how they can directly relate the standard to the instructional setting.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 606 Design and Assessment 3.0 Credits
This course emphasizes the role of ESL teachers as course developers and action researchers, focusing on effective lesson planning, tack design, materials development, assessment and evaluation, and the use of computers in instruction. In the practicum component, participants will design thematic units, determine objectives, develop materials, and design assessment tools.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 607 Intercultural Learner Portfolio 1.5 Credit
This course is designed to assist students in developing a professional Teaching English as a Second Language (TESL) Teaching Portfolio. In this course the students will focus on the TESL competencies that are covered in EDUC 608 and demonstrate through artifacts, reflections, activities and course work how they can directly relate the standard to the instructional setting.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 608 The Intercultural Learner 3.0 Credits
This course explores the needs, experiences, values, and beliefs of culturally and linguistically diverse learners and their families and communities. Building home/school relations and adapting and supporting curriculum through school services will be a focus. For a practicum, participants will engage in a case study of an English language learner.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 609 Language & Culture in Education 3.0 Credits
The purpose of this course is to explore the identity and cultural backgrounds of English Language Learners (ELLs) in our schools and to discuss the impact of these backgrounds on students' educational progress. The course will address the ways in which teachers can provide an appropriate learning environment for students of diverse backgrounds.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 610 Action Research in Teaching ELLs 3.0 Credits
This course serves as capstone course within the Teaching English as a Second Language (ESL) credential program at Drexel. Candidates integrate content obtained in the prior core courses through an action research project with English Language Learners in a public school setting under the mentorship of an TESL specialist. Candidates also prepare for their transition to an independent ESL program professional by documenting their competencies in a teaching portfolio and creating a professional development plan.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 606 [Min Grade: B] (Can be taken Concurrently)EDUC 602 [Min Grade: B] and EDUC 604 [Min Grade: B] and EDUC 608 [Min Grade: B] and LING 560 [Min Grade: B]

EDUC 620 Physics in the Arts in Philadelphia 3.0 Credits
This course explores the city of Philadelphia to identify "physics" concepts within the city and in its art with the goal for students to become better aware of the importance of STEM (science, technology, engineering and math) in their daily lives. STEM knowledge empowers citizens as consumers and voters. An elementary understanding of the basic principles of science can inform better decisions regarding energy use, environmental protection, and even, dietary and exercise choices. Using the city as a laboratory we will explore learning in informal settings and put theoretical lessons into a real-world context.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 622 The Science of Sport 3.0 Credits
STEM concepts will be learned through the vehicle of sports in which the underlying principles of science and mathematics are discovered. Topics that will be covered in the course include: geometry, forces, motion, mechanics, biomechanics, anatomy and physiology, kinesiology, simple machines, energy transformations, and aerodynamics. Students will learn these concepts while performing aspects of different sports. The purpose is for students to actually see the science and mathematics concepts happening.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 700 Classroom Research for Teachers I 4.5 Credits
This course introduces candidates to teacher research, a form of self-reflective systematic inquiry by practitioners on their own practice. The goals of teacher research are the improvement of practice, a better understanding of that practice, and an improvement in the situation in which the practice is carried out. Also examined will be findings from research on practice and how it can be used to support school and instructional change.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 701 Classroom Research for Teachers II 1.5 Credit
In this second course in a two-course sequence, students will utilize
school-based, collected research data. Issues pertaining to the ethics of
data collection, data analysis and interpretation and writing the classroom
research study will be examined and explored. Students will be mentored
in the writing of research with a view toward submission of their research
for publication and presentation.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 700 [Min Grade: B]

EDUC 702 School Leadership & Decision Making 3.0 Credits
This course will focus on decision-making in the schools. Emphasis will
be placed on major challenges and opportunities in the work world of the
principal and the interpersonal skills of school leadership.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 705 School Law and Politics 3.0 Credits
This course is designed to assist students with their understanding of
how law, politics, and power structures interact to influence the goals
and operations of the schools. Students will student the roles of school
boards and community organizations, state boards of education, state
government agencies, special interest groups, professional organizations,
and unions.
College/Department: School of Education
Repeat Status: Not repeatable for credit

**EDUC 708 Integration of Technology with School Instruction and
Management 3.0 Credits**
In this course students will investigate learning theory and its implication
for interactive multimedia learning formats including the relationship of
instructional design principles to selection of multimedia elements.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 710 School Finance and Facilities 3.0 Credits
In this course, students will study the school budgeting process and
school facilities management. Students will receive and overview of the
basic financial and facility issues, unique to education that affect individual
school buildings.
College/Department: School of Education
Repeat Status: Not repeatable for credit

**EDUC 712 School and Community Partnerships and Relations 3.0
Credits**
In this course, students will study the skills, techniques and attitudes.
School leaders need to work effectively with school constituents.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 714 Instructional and Curriculum Leadership 3.0 Credits
In this course, students will examine the relationship between school
culture and classroom instruction. Students will study the five fundamental
tasks of instructional leadership (direct assistance, group development,
professional development, curriculum development, and action research).
Students will also investigate effective classroom observation methods.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 715 School Principal Internship: Technology 1.5 Credit
This yearlong intensive internship is the activity for the students in the
Drexel Education Leadership Program. During this course, the students
will put school leadership theory and knowledge to practical application.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 708 [Min Grade: C] (Can be taken Concurrently)

EDUC 716 School Principal Internship: Finance 1.5 Credit
The yearlong intensive internship is the culminating activity for the
students in the Drexel Education Leadership Program. During this course,
the students will put school leadership theory and knowledge to practical
application.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 710 [Min Grade: C] (Can be taken Concurrently)

EDUC 717 School Principal Internship: Leadership 1.5 Credit
The yearlong intensive internship is the culminating activity for the
students in the Drexel Education Leadership Program. During this course,
the students will put school leadership theory and knowledge to practical
application.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 714 [Min Grade: C] (Can be taken Concurrently)

**EDUC 718 School Principal Internship: School and Community
Relations 1.5 Credit**
The yearlong intensive internship is the culminating activity for the
students in the Drexel Education Leadership Program. During this course,
the students will put school leadership theory and knowledge to practical
application.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 712 [Min Grade: C] (Can be taken Concurrently)

EDUC 750 Critical Issues in Education Seminar 3.0 Credits
This course is offered in the style of a "proseminar" that consists of
reading, reflection and discussion with a faculty member on a focused
critical issue in education. Specific foci will change each term and be
aligned with faculty expertise and student interests. The course is
designed to inform doctoral students on educational issues to impact their
teaching and research agenda.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is ELLT.

EDUC 775 Special Topics in Teacher Preparation 9.0 Credits
Covers various topics of particular interest to teacher education students.
College/Department: School of Education
Repeat Status: Can be repeated multiple times for credit

**EDUC 780 Patterns for I.D.E.A.S. (Induction, Deduction, Enquiry,
Analysis, Synthesis) 4.5 Credits**
Develops teaching methods that focus on analyzing student thinking,
including processes in inductive reasoning, storage and imaging by use of
simulations, case studies, and role-playing.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 781 Keys to Motivation 4.5 Credits
Analyzes roadblocks to student motivation as related through attribution theory. Examines reinforcement response strategies that enable the teacher to provide an encouraging classroom environment, teacher leadership strategies that create an environment where students have greater decision-making power, strategies to enhance organization and expression of ideas, group learning strategies to promote student involvement, and risk management.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 782 Teaching Through Learning Channels 4.5 Credits
Requires students to analyze their own learning preferences and apply resulting skills to students in the classroom. Explores techniques for identifying kinesthetic, tactual, auditory, and visual activities to support student learning strengths and diminish weaknesses. Includes student-presented demonstration lessons that model these skills.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 783 P.R.I.D.E. 4.5 Credits
Provides instruction in the use and interpretation of non-verbal communication and its impact on learning. Addresses strategies and problem-solving techniques for effectively managing classroom disruptions, increasing student involvement, and keeping students on task.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 784 Classroom Management: Orchestrating a Community of Learners 4.5 Credits
Provides instruction in verbal skills and strategies focusing on positive, observable teacher behaviors and classroom practices that enhance student self-esteem and create a positive and inviting learning environment through verbal skills, active listening, teacher leadership, and problem exploration and resolution. Assumes that if teachers understand student characteristics, they will be more successful in creating a positive group dynamic.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 785 Coaching Skills 4.5 Credits
Designed to develop teacher coaches with the skills necessary to identify an instructor's strengths as well as areas for improvement based on effective teaching research. Explores and applies current research on the coaching process.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 799 Independent Study in Teacher Preparation 0.5-9.0 Credits
Covers various topics of particular interest to teacher education students, explored individually by the student under guidance from an instructional team member.
College/Department: School of Education
Repeat Status: Can be repeated multiple times for credit

EDUC 800 Educational Leadership & Change 3.0 Credits
Covers leadership characteristics, styles, and profiles along with the dynamics of the change process. Students develop an action plan for a school-based project, keep a log, and do reflective analysis. Students will interview a leader about their experiences in change and develop a leadership portfolio.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 801 Creative Strategies For Educational Leaders 3.0 Credits
Examines the theoretical and research issues pertaining to creativity and the development of the creative thought process. Emphasizes how role playing and drama techniques can become a powerful tool to promote creative thinking, innovation, and change for educational leaders.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 802 Using and Integrating Learning Technologies 3.0 Credits
Covers learning theories and integrative models as they use instructional software in different contexts and subject areas. Demonstrates strategies for using and implementing multimedia, hypermedia, and electronic networking for candidates to implement in their own school settings.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 803 Educational Research Design I 3.0 Credits
Introduces students to research design paradigms and the assumptions behind them, use of the literature, developing research questions, qualitative and quantitative procedures, and research study formats.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 804 Program Evaluation in Organizations 3.0 Credits
This course provides an experience in designing effective program evaluations for many purposes. Increasingly, evaluation and assessment are required for education research, research grants, school and organizational reform, and public policy. Students will study the foundations of program evaluation, examine underlying assumptions about the purposes and models of evaluation, and explore the various roles of the evaluator. In studying examples, students will vicariously experience various program evaluations from start to finish and understand the complexities of decision-making that evaluators face.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 806 Linking Educational Theory to Research 3.0 Credits
Course designed to acquaint students with educational theories and perspectives that have shaped the education discipline. A range of educational theories developed throughout 19th, 20th and 21st centuries will be discussed and explored toward guiding students on how these theories and viewpoints apply to research and educational practice today.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 807 Multi- & Cross-Cultural Perspectives in Leadership 3.0 Credits
Course will assist administrators, researchers and scholars to transform schools to address persistent inequities present in US educational systems and serve the needs of disadvantaged and disenfranchised groups. Course will deepen students' knowledge of multicultural education and advance their skills and talents as educational leaders.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 809 Introduction to Data Collection and Analysis 3.0 Credits
This course prepares students to collect basic quantitative and qualitative data to be analyzed in a subsequent required course. Students will be introduced to educational research data and implications and use in research.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is ELLT.
Prerequisites: EDUC 803 [Min Grade: B] and EDUC 810 [Min Grade: B]

EDUC 810 Educational Research Design II 3.0 Credits
The course builds upon Educational Research Design I and focuses on five main themes: research design, sampling design, data collection, data analysis, and reporting research results using educational applications.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 803 [Min Grade: C]

EDUC 811 Designing and Developing Multimedia Applications For Learning 3.0 Credits
Allows students to design and develop a multimedia application for learning using an object-oriented authoring application and the process of design, development, and testing. Demonstrates and applies principles of learning that affect interface design, instructional design, storyboarding, navigation, interactivity, and feedback design.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 812 Staff Development & Team Building 3.0 Credits
Helps educational leaders explore effective models for professional development in schools and school districts. Covers the development of effective strategies and practices based upon current research, adult learning theory, and successful local and national models. Also provides in-depth training in the area of effective meeting design, involvement, and decision-making.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 813 Educational Issues Seminar 3.0 Credits
Examines current issues in public education, including school community, staff relations, integrating educational innovation, negotiating the bureaucracy, public charter schools, and urban education.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 814 Designing Educational Organizations 3.0 Credits
Examines innovation in rostering, scheduling, and defining the instructional program. Emphasizes middle school education and design of small learning communities such as the cluster concept and public charter schools.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 815 Writing for Research, Publication and Funding in Education 3.0 Credits
Guides students in the writing for research, publication, and funding in education by studying examples of effective writing formats written by successful practitioners and by using an active writing process approach: writing drafts, and giving feedback in small peer groups. Students produce a final document for each type of writing that employs authentic tasks and assessments.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 816 Inclusion Issues 3.0 Credits
Examines the various inclusion models whereby children with special needs become part of the teaching and learning community in which everyone-teacher and all students-can benefit by an inclusive program. Addresses such topics as how administrators may take leadership in implementing inclusion and designing an inclusive school.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 817 Curriculum Models 3.0 Credits
Allows candidates to develop models of curricula aligned with local, state, and national standards. Presents strategies for interdisciplinary teaching, creating constructivist learning environments, and developing integrative curriculum modules. Considers learning styles in effective methods that will be modeled and implemented in the course.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 818 Applied Research Study 0.5-20.0 Credits
Offers candidates a field-based opportunity to design and implement a pilot research study that will be presented and defended. Steps include framing the question and methodological approach, collecting and analyzing data, interpreting the results, and writing a report. Students document their research activities in a log. Research approaches can include action research, case studies, experimental designs, etc.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 820 School Superintendency 3.0 Credits
This course is designed to provide both theoretical and practical insights into the evolving responsibilities associated with being the chief executive office of a school system.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 801 [Min Grade: C] and EDUC 802 [Min Grade: C]

EDUC 824 Parents and Schools 3.0 Credits
This course provides the candidate with the skills required by system-level administrators to work with a broad spectrum of constituencies. Students will focus on the major issues facing families, especially those that mitigate against strong home-school relations, such as poverty, domestic violence, and drug abuse.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 827 [Min Grade: B]

EDUC 827 School Superintendent's Internship: Curriculum Models 1.0 Credit
This is a yearlong internship in various central office positions depending on the candidate's career preferences. The experience will focus on school issues of a system-wide impact, such as policy development, long-range planning, school board function and personnel management.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 820 [Min Grade: C]

EDUC 828 School Superintendent's Internship:: Parents and Schools 1.0 Credit
This is a yearlong internship in various central office positions depending on the candidate's career preferences. The experience will focus on school issues of a system-wide impact, such as policy development, long-range planning, school board function and personnel management.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 827 [Min Grade: C]

EDUC 829 School Superintendent's Internship III 1.0 Credit
This is a yearlong internship in various central office positions depending on the candidate's career preferences. The experience will focus on school issues of a system-wide impact, such as policy development, long-range planning, school board function and personnel management.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 828 [Min Grade: C]

EDUC 830 School Superintendent's Internship IV 1.0 Credit
This is a yearlong internship in various central office positions depending on the candidate's career preferences. The experience will focus on school issues of a system-wide impact, such as policy development, long-range planning, school board function and personnel management.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EDUC 829 [Min Grade: C]

EDUC 835 Quantitative Research Methods and Data Analysis 4.0 Credits
Continuation of EDUC 810. Use of statistical methods using real-world problems and real-world data to gain experience with following topics: analysis of variance and covariance, simple and multiple linear regression, multivariate techniques of factor analysis, cluster analysis and multi-level and structural equation modeling. Course includes a lab for practice-based learning using SPSS.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is ELLT.
Prerequisites: EDUC 803 [Min Grade: C] and EDUC 810 [Min Grade: C]

EDUC 836 Qualitative Research Methods and Data Analysis 4.0 Credits
Continuation of EDUC 835. Use of qualitative methods using real-world problems and real-world data to gain experience with following research techniques such as ethnography and case studies to gain skills in participant observation, interviewing, archival research and historical analysis. Other theoretical frameworks and methodological approaches for qualitative research will be discussed. Course includes a lab for practice-based learning to use computer software for data collection/analysis.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is ELLT.
Prerequisites: EDUC 835 [Min Grade: C]

EDUC 840 Theories of Individual Cognition in STEM Education 3.0 Credits
Course foci is on the knowing and learning of STEM education from a social perspective from an individual cognitive perspective and will include emphasis on both recent research and seminal literature. The course will be an introduction to the psychological foundations of STEM education. This course is the first in a three-course STEM (Science, Engineering, Technology and Mathematics) education content specialization sequence.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is ELLT.

EDUC 842 Social Foundation and Group Cognition in STEM Education 3.0 Credits
Course foci is on the knowing and learning of STEM education from a social perspective and will include emphasis on both recent and seminal literature. The course will include an introduction to the sociocultural research and foundations of STEM education. This course is the second in a three-course STEM (Science, Engineering, Technology and Mathematics) education content specialization sequence.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is ELLT.

EDUC 844 Creativity and Innovation in STEM Education 3.0 Credits
This course will provide a foundation of creativity, innovation theory, awareness of research and seminal literature in the context of STEM education. Theories of creativity and creative thinking, the methods for studying creativity and the biological basis of creativity. The course is the third in a three-course STEM (Science, Engineering, Technology and Mathematics) education content specialization sequence.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EDUC 880 Doctoral Seminar 1.0 Credit
Seminar to prepare students who have completed the core doctoral courses and residency requirement to work with their Dissertation Advisor in the development of their dissertation research proposal.
College/Department: School of Education
Repeat Status: Can be repeated 10 times for 10 credits
Prerequisites: EDUC 810 [Min Grade: B] and EDUC 811 [Min Grade: B] and EDUC 813 [Min Grade: B]

EDUC 998 PhD Dissertation 1.0-12.0 Credit
Allows candidates to conduct an original research study that will comprise the dissertation.
College/Department: School of Education
Repeat Status: Can be repeated multiple times for credit

Education Human Resource Development

Courses

EHRD 500 Foundations of Human Resources Development 3.0 Credits
Introduces HRD as a professional field of practice, places HRD within the context of the contemporary workplace, presents theories, paradigms, and issues in the field; introduces the concept of a learning organization and the HRD practitioner as a change agent.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EHRD 600 Organizational Consulting 3.0 Credits
Prepares students to be effective internal or external consultants for management. Covers partnering and contracting skills, organizational diagnosis and feedback, intervention strategies, interpersonal communications, influencing skills, and ethics.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EHRD 601 Leading and Evaluating Change 3.0 Credits
This course serves as introduction to the study and practice of organization development and change. Students will gain a broad understanding of the field including its philosophy, history, models, and techniques used in facilitating system-wide as well as incremental organizational change and improvement. Issues related to values, ethics, and organizational assessment and diagnosis are explored.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EHRD 602 Coaching and Mentoring for Sustainable Learning 3.0 Credits
The purpose of this course is to develop leaders at executive levels into organizational mentors who help to sustain a learning culture in organizations. Using readings, written assignments, self-assessments, case studies, and group activities, students will learn specific skills & concepts of effective mentoring/coaching for building learning communities in organizations. The course will address how coaching and mentoring can be used as effective development initiatives for nurturing learners at all levels within organizations.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EHRD 603 Performance Competencies 3.0 Credits
Using their own organization as a learning laboratory and a company sponsor/mentor, students will demonstrate 4 core competencies: 1) Technical Competencies (related to the technical aspects of training; 2) Business Competencies (related to the understanding of staffing principles and budgeting); 3) Intellectual Competencies (related to thinking and processing of information) and 4) Interpersonal Competencies (related to how we interact and communicate with others. Students will present a case study critiqued by instructor and company mentor.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EHRD 604 Development of Human Resources 3.0 Credits
The purpose of this Advanced Seminar Course is to develop human resources in the organization. Students will learn ways to invest in the talents and expertise of people within a culture conducive to information and knowledge sharing of professional practices. Career development and succession planning will be studied and applied for future leadership practices.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EHRD 605 Organizational Learning & Strategy 3.0 Credits
This course assists leaders at executive levels understand the need to align learning functions with strategic, organization goals; develop awareness and understanding of how organizations are designed and structured; and the implications of leading and managing learning organizations. Using a research-based model of organization theory, students will learn to build organizational cultures that support strategic alignment of learning by making learning relevant to businesses' daily workflow.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EHRD 606 Human and Organizational Performance 3.0 Credits
Systemic strategies for attaining continuous improvement in the private and public sector marketplace are examined. This includes the concept of human performance improvement in research and practice and the role of the performance improvement professional in facilitating individual, team, and organizational performance to support and sustain these strategies.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EHRD 607 Global Human Resource Development 3.0 Credits
This course explores the scope of human resource development programs in multinational and global settings. Using readings, written assignments, case studies, and group activities, students will learn about the national and international trends and initiatives regarding human resource development with a focus on the influence and impact of a diverse and global workforce.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EHRD 608 Evaluating the Value & Impact of Human Resource Development Interventions 3.0 Credits

This course explores the scope of human resource development programs in multinational and global settings. Using readings, written assignments, case studies, and group activities, students will learn about the national and international trends and initiatives regarding human resource development with a focus on the influence and impact of a diverse and global workforce.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EHRD 609 Training and Development 3.0 Credits

This introductory course provides an overview of the training and development component of human resource development. While delivering the traditional components of training assessment, design, delivery, implementation, and evaluation, this course also explores alternative 'training' modalities. The course is designed to provide participants a working knowledge of the basic skills required to be successful trainers in a current organizational environment. The course is also designed for participants to challenge the dominant assumptions under which trainers are asked to work.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EHRD 610 Strategic Competencies for HRD Leaders 3.0 Credits

This course serves as an introduction to the performance competencies needed by today's human resources development professional. Students will gain an understanding of several core and yet evolving human resource competencies. The course is specifically designed for HRD professionals who aspire to serve in a senior leadership capacity. Emphasis is on the use of evidence-based practices and workforce intelligence to facilitate strategy, learning, and change.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EHRD 650 Learning Leadership in Organizations 3.0 Credits

Examinations of cyclical continuum beginning with individual learning, extending through work unit and corporate learning activities, and resulting in organizational success indicators. Students will explore structures for promoting and sharing learning, such as the corporate "university," systems theory, career development and other techniques employed by learning leaders. The course will illumine leadership attributes of the chief learning officer and methodologies for inspiring an organizational culture of leadership.
College/Department: School of Education
Repeat Status: Not repeatable for credit

EHRD 715 Capstone Co-op with Portfolio I 1.5 Credit

The School of Education has partnered with the Steinbright Center to provide a part-time co-op for working students for 2 terms. This is the first of a two course sequence. At the end of the co-op, students submit a portfolio and make a presentation on an Action Research Project or an Evaluation Project completed in the Capstone Co-op workplace setting.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EHRD 500 [Min Grade: C] and EHRD 600 [Min Grade: C] and EHRD 601 [Min Grade: C] and EHRD 606 [Min Grade: C] and EDHE 660 [Min Grade: C] and EDUC 804 [Min Grade: C]

EHRD 716 Capstone Co-op with Portfolio II 4.5 Credits

EHRD 716 is Part II of the Capstone Co-op Portfolio Project; a partnership provided by the School of Education and the Drexel Steinbright Center. This is the second course in a two course sequence. At the end of the co-op, students submit a portfolio and make a presentation on an Action Research Project or an Evaluation Project completed in the Capstone Co-op workplace setting.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: EHRD 715 [Min Grade: C]

Mathematics Education

Courses

MTED 500 Learning and Teaching Number and Operation 3.0 Credits

Course focus is on the key ideas of number and operation and support students in developing a coherent understanding of both our number system and the structural similarities between it and the computation, arithmetic, algebra, and problem solving that appear throughout the school mathematics curriculum.
College/Department: School of Education
Repeat Status: Not repeatable for credit

MTED 501 Proportional and Algebraic Reasoning 3.0 Credits

This course is about learning and teaching algebra, focusing on patterns, functions and graphs, proportionality, and algebraic connections. Participants will collaboratively explore open-ended problems, discussing, evaluating, revising, and analyzing others' solutions. This is the first course in a sequence to prepare teachers for implementing student-centered, content-based and technology-enhanced instruction.
College/Department: School of Education
Repeat Status: Not repeatable for credit

MTED 502 Geometry & Spatial Reasoning 3.0 Credits

This course is about learning and teaching geometry, focusing on characteristics of shapes, representational systems, geometric modeling, and proof. Participants will collaboratively explore open-ended geometric problems, discussing, evaluating, revising, and analyzing others solutions. This is the second of three introductory courses that prepare teachers to enact student-centered learning and teaching.
College/Department: School of Education
Repeat Status: Not repeatable for credit

MTED 503 Data Analysis and Probabalistic & Statistical Reasoning 3.0 Credits

This course is about learning and teaching data analysis and probabilistic and statistical reason, focusing on representation of data, measures of center and spread, inferential statistics, proportionality and probability, and introductory statistical analysis. Participants will discuss, evaluate, revise and analyze solutions and methods. This is the third of a 3-course sequence.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is MLAT.

MTED 511 Functions through the Curriculum 3.0 Credits
This course will consist of an extended analysis of the conception of function, including its historical development. Participants will gain personal experience in thinking of function as a unifying idea on mathematics as well as with conceptual instructional materials.
College/Department: School of Education
Repeat Status: Not repeatable for credit

MTED 601 Diagnosing Student Mathematical Thinking 3.0 Credits
This course is about student-centered learning and teaching of mathematics. This goal is to develop participants' expertise in analyzing student work, understanding student thinking, and using that understanding to guide subsequent interactions and interventions with the student.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is MLAT.

MTED 611 Virtual Field Experience I - Online Mentoring 1.5 Credit
This course utilizes the Math Forum's online learning environment to provide teachers with opportunities to engage with students, diagnose student understandings, and implement appropriate instructional responses. Key to this course is virtual one-on-one interactions and an opportunity to reflect on these interactions. This is the first of a 2-course sequence.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is MLAT.
Prerequisites: MTED 601 [Min Grade: C]

MTED 612 Virtual Field Experience II - Online Mentoring 1.5 Credit
This course utilizes the Math Forum's online learning environment to provide teachers with opportunities to engage with students, diagnose student understandings, and implement appropriate instructional responses. Key to this course is continued virtual interactions and an opportunity to reflect on these4 interactions. This is the second of a 2-course sequence.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is MLAT.
Prerequisites: MTED 611 [Min Grade: C]

MTED 621 Collaborative Instructional Design & Analysis I 3.0 Credits
This course focuses on teachers identifying critical areas from their colleagues' classrooms that are in need of improvement and designing and implementing a substantive, outcome-driven response. The course will involve intensive analysis of curricular goals, intended student outcomes, lesson planning and classroom-based ?action research?.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is MLAT.
Prerequisites: MTED 601 [Min Grade: C]

MTED 622 Collaborative Instructional Design & Analysis II 3.0 Credits
This course is the second of two courses designed to help teachers identify critical areas from their colleagues' classrooms that are in need of improvement and designing and implementing an appropriate response. The course will involve similar tasks and assignments as MDED 621 but will differ in curricular focus.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is MLAT.
Prerequisites: MTED 621 [Min Grade: C]

MTED 651 Problem Solving Strategies 3.0 Credits
Course focus is on supporting the development of mathematical approaches to problems that allow students to productively engage with and reason through a wide variety of mathematical tasks. Students will develop high levels of competence and sophistication with a wide range of mathematical approaches, including guess and check, consider a simpler problem, analyze in terms of parity, case analysis, etc.
College/Department: School of Education
Repeat Status: Not repeatable for credit

MTED 661 Teach Math Geometer Sketchpad 3.0 Credits
Course explores how the teaching and learning of math in grades 6 through calculus is enhanced by appropriate use of dynamic mathematics software such as Sketchpad. Course activities will include constructing sketches from scratch and using existing activities and highly-authored sketches to cover topics in middle school, algebra, geometry, pre-calculus, and calculus. Sketchpad topics such as animation, action buttons, presentation sketches, custom tools, etc. will also be covered.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is MLAT or major is TLC.

MTED 662 Teaching Calculus with Geometer's Sketchpad 3.0 Credits
This course explores teaching the fundamental ideas of calculus, including limits, derivatives, antiderivatives, and integrals through the use of dynamic geometry software. While the course will cover a variety of calculus content, it is not a calculus course. This course is designed to enrich students' understanding of calculus ideas, to corroboratively explore these ideas with colleagues, and to engage in professional conversations about the implications of these experiences and technologies on the teaching of the ideas of calculus at the middle and secondary levels.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is MLAT or major is TLC.

MTED 690 Current Research in Mathematics Learning & Teaching 3.0 Credits
This capstone course for the Master of Science program in Mathematics Learning and Teaching will provide students with an introduction to research in mathematics education. Participants will read, analyze, and synthesize seminal research articles in mathematics education and create a proposal for a future classroom-based research project.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Restrictions: Can enroll if major is MLAT.

MTED 775 Special Topics in Mathematics Education 3.0 Credits
Covers various topics of particular interest to mathematics teachers and education students.
College/Department: School of Education
Repeat Status: Can be repeated 3 times for 9 credits

Museum Education

Courses

MUSM 500 Foundations of Informal Education in Museum Settings 3.0 Credits
This course explores the goals and importance of learning in contextual environments and how people learn in museum settings, including history and function of informal education in various types of museum settings.
College/Department: School of Education
Repeat Status: Not repeatable for credit

MUSM 504 Current Research in Museum Design and Learning 3.0 Credits
This course provides an overview of the history of research in museum learning. It further looks at current studies that inform museum and exhibit design. It includes the review of qualitative and quantitative tools currently being used to evaluate the museum/exhibit design, the profiles of museum audiences, and the nature of secondary elements museum influencing the visit. A literature review and comparative study will be done that compares research questions being studied nationally and internationally.
College/Department: School of Education
Repeat Status: Not repeatable for credit

MUSM 505 Evaluation of Learning in Museum Settings 3.0 Credits
This course explores the challenge of evaluating learning in informal settings and provides an overview of a variety of qualitative and quantitative tools, both formative and summative, currently being used to evaluate such learning. It also examines several program evaluation models with emphasis on the Museum Visitor Experience Model. The evaluation framework includes a study of multiple stakeholders and the social, cultural, and ethical issues involved when conducting evaluation of learning. The students will design and pilot an evaluation tool for a current museum exhibit.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: MUSM 500 [Min Grade: C]

MUSM 506 Technology in Museum Education 3.0 Credits
Exploration of the socio-technical issues that arise when people, information, and technology interact in museum education activities; and how technologies such as mobile devices, touch-based displays, 3D environments, social networks, videoconferencing, webcasting, educational video and assistive technology can enhance the museum learning experience. This course is designed to address the current and future challenges faced by museum educators. It examines not only applications of new technology used in museum education, but how advances in information science and technology have changed the very nature of learning in a museum setting.
College/Department: School of Education
Repeat Status: Not repeatable for credit

MUSM 508 Meeting the Educational Needs of Diverse Museum Audiences 3.0 Credits
The purpose of this course is to give students a background on the variety of audiences that visit museums and the different techniques that museum professional use to reach these audiences. You will learn about different theories in museum education and exhibitory, cultural competency, and experience a variety of activities from museums in the Philadelphia area that were specifically developed for unique audiences.
College/Department: School of Education
Repeat Status: Not repeatable for credit
Prerequisites: MUSM 500 [Min Grade: C]

MUSM 510 Designing and Evaluating Museum Tours: A Practicum 3.0 Credits
The purpose of this course is to give students an opportunity to experience the many dimensions of Museum Education and to demonstrate understanding of learning in an informal/museum setting through practical experience. Students will conduct 40 hours of interactive observations in a museum setting and construct a small-scale project, which allows the candidate to create a final product (i.e. curricular piece, new policy draft, conditions report, etc.) depending upon the student's area of interest.
College/Department: School of Education
Repeat Status: Not repeatable for credit

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