



DREXEL UNIVERSITY

School of
Education

CATALOG

2025-2026

UNDERGRADUATE

DREXEL INSTITUTE

catalog.drexel.edu

The School of Education

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 7-12).

School of Education undergraduate students have the option to choose from the following program options: BS on-campus (full- or part-time) taking day and/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 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

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Accelerated Degrees

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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
 - Computer Science
 - Earth and Space Science
 - English
 - General Science
 - Mathematics
 - Physics
 - Social Studies

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 (DSLPP). 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 education non-certification concentration. 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 web 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.

Cooperative Education

Drexel students are well prepared for success in their career thanks in part to high-quality experiential learning like the cooperative learning experiences. Drexel's School of Education Cooperative Education program is well known for its outstanding field-based experiences that include a range of formal, school based and community activities. These experiences give students invaluable first-hand exposure to the classroom and the opportunity to apply what they have learned towards student teaching experiences. The cooperative learning experience offered as part of the professional career development support services at Drexel University pertains to full-time undergraduate students pursuing teacher certification. Non-certification concentration students perform a Cooperative learning experience outside of the standard school-based classroom environment. Part-time students do not participate in cooperative learning experiences.

The on-campus BS degree is completed in four years. In addition to the Pennsylvania Department of Education's (PDE) state mandated field experiences and 2 quarter term student teaching residency, 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.

Education Faculty

Jennifer Adams, EdD (*Harvard University*). Associate Professor. Comparative and international education; Poverty and education; Child welfare; Educational policy.

Ayana Allen, PhD (*Texas A&M University*). Assistant Professor. Urban education; Identity construction in school contexts; Urban school transformation.

Kristen Betts, EdD (*George Washington University*). Clinical Professor. Higher education administration and governance, online blended education, instructional design and educational technology, program assessment and evaluation.

W. Edward Bureau, PhD (*University of Pennsylvania*). Associate Clinical Professor. Leadership, supervision, and capacity development.

Jamie Callahan, EdD (*George Washington University*). Clinical Professor. Leadership; Sociological explorations of emotions occurring in organizational contexts; Organizational development; Contextual issues confronting organizations, such as organizational leadership, organizational culture, and communities of practice.

Holly Carpenter, PhD (*Arizona State University*). Assistant Clinical Professor. Higher education policy development and implementation, community college/university articulation, and online education.

José Luis Chávez, EdD (*University of Southern California*). Clinical Professor. Higher education leadership and administration.

Rebecca Clothey, PhD (*University of Pittsburgh*). Assistant Professor. Comparative and international education, education of ethnic and linguistic minorities, sociology of education.

James Connell, PhD (*Louisiana State University*) *Clinical Director and Research Fellow, A.J. Drexel Autism Institute*. Associate Professor. Identifying the variables that influence adult behavior change in community settings; autism intervention; widespread dissemination of evidence-based interventions in school and community settings.

D. Brent Edwards, PhD (*University of Maryland*). Assistant Clinical Professor. Global and international education

Salvatore V. Falletta, EdD (*North Carolina State University*). Associate Clinical Professor. Human Resource intelligence (i.e., HR research and analytics practices); HRD assessment, measurement, and evaluation models and taxonomies; organizational diagnostic models; web-based employee and organizational survey methods, and computational modeling.

Aroutis N. Foster, PhD (*Michigan State University*). Associate Professor. Educational psychology and educational technology, especially the following: Motivation; Technological Pedagogical Content Knowledge (TPACK); Immersive Interactive Digital Environments (simulation, games, virtual realities).

Kathy Geller, PhD (*Fielding Graduate University*). Assistant Clinical Professor. Educational leadership and management.

Rajashi Ghosh, PhD (*University of Louisville, Kentucky*). Associate Professor. Mentoring and leader development, workplace Incivility, workplace learning and development.

Roger Geertz Gonzalez, PhD (*Pennsylvania State University*). Associate Clinical Professor. Civic engagement, college student identity development, indigenous higher education, comparative higher education access policies.

John M. Gould, PhD (*University of Pittsburgh*) *Harrisburg EdD Educational Leadership & Change Program*. Associate Clinical Professor. Change leadership, curriculum re-design, the impact of technology on learning.

Mary Jo Grdina, PhD (*Case Western Reserve University*). Associate Clinical Professor. Undergraduate studies, science education, curriculum design.

Dominic F. Gullo, PhD (*Indiana University*) *Associate Dean of Research*. Professor. Studying the relative and long-range effects of early schooling experiences in prekindergarten and kindergarten on children's achievement and social adaptation to school routine.

Penny Hammrich, PhD (*University of Minnesota*) *Associate Dean for Graduate Studies*. Professor. Urban education; science education; genetics; gender equity; science knowledge for conceptual teaching; sport science.

Paul Harrington, PhD (*University of Massachusetts, Boston*) *Director, Center for Labor Markets and Policy*. Professor. Teen and young adult job access; economic outlook, college labor market; workforce development, planning, and development; vocational rehabilitation and job market transition.

Elizabeth Haslam, PhD (*University of Pennsylvania*). Associate Clinical Professor. Educational field coordinator, instructional design, qualitative evaluation, writing across the curriculum.

Michael J. Haslip, PhD (*Old Dominion University*). Assistant Professor. Early childhood education, social and emotional learning, child guidance strategies, effects of public pre-school attendance.

Marlene Hilkowitz, M.Ed (*Temple University*). Assistant Clinical Professor. Science education; Curriculum development; Student engagement

Deanna Hill, JD, PhD (*University of Pittsburgh*). Assistant Clinical Professor. Higher education, international education, education law, education policy

Erin Horvat, PhD (*University of California, Los Angeles*) Associate Dean for Academic Affairs. Professor. Urban education, access and equity, high school dropout, parent involvement/family involvement, community engagement in research.

Jennifer Katz-Buonincontro, PhD (*University of Oregon*). Associate Professor. Educational administration, leadership development, survey & instrument design.

Kristine Kelly, PhD (*University of Wisconsin, Madison*). Assistant Clinical Professor. Sociology of gender and development; anthropology of policy; comparative and international education; qualitative research methods; Vietnam and Southeast Asia.

Valerie Klein, PhD (*Amherst College*). Assistant Clinical Professor. Mathematics learning and teaching; teacher's use of formative assessment in mathematics; creating opportunities for rich problem solving in the classroom; examining teachers growth and change; qualitative research methods.

Vera Lee, EdD (*University of Pennsylvania*). Assistant Clinical Professor. Practitioner Research in online courses to explore inservice/preservice teachers' emerging understandings about issues of diversity; the development of information/digital literacies of urban youth; English language learners.

Bruce Levine, JD (*New York University*). Assistant Clinical Professor. Educational policy, school law, public-private partnerships, intersection of business and education.

Kristine Lewis-Grant, PhD (*Temple University*). Associate Clinical Professor. Experiences of students of African descent at predominantly white colleges and universities, college access and college student development, youth civic engagement in urban school reform, qualitative research and evaluation.

William Lynch, PhD (*University of Maryland*). Professor. Curriculum and educational leadership, educational technology, distance learning policy development, higher and adult education.

Constance Lyttle, PhD, JD (*University of Pittsburgh, Duquesne University*). Associate Clinical Professor. Legal rights of gifted and talented children and children with disabilities; inclusive education of exceptional children; special education mediation; special education IEP/IFSP facilitation; resolution session facilitation

Kenneth Mawritz, PhD (*University of Pittsburgh*). Assistant Clinical Professor. Educational administration

Joyce Pittman, PhD (*Iowa State University of Science and Technology*). Associate Clinical Professor. Curriculum and instruction K-16; teaching

English as a foreign language (TEFL); instructional design business education and administration; industrial and career technology; oral and written communication; research methodology; instructional and assistive technology assessment; online learning pedagogy

Kathleen Provinzano, PhD (*Marywood University*). Associate Clinical Professor. Educational administration.

Fredricka K. Reisman, PhD (*Syracuse University*) Director of the Torrance Center for Creativity and Innovation. Professor. Mathematics education, learning mathematics, mathematics pedagogy, teacher education, heuristic diagnostic learning and teaching, theory and research in creativity and applied creativity.

Lori Severino, EdD (*Neumann University*). Assistant Clinical Professor. Special education, differentiated instruction, reading, Wilson language, multi-sensory instruction, reading comprehension, assessment, adolescent literacy.

Jason Silverman, PhD (*Vanderbilt University*). Associate Professor. Teaching and learning of advanced mathematical ideas (algebra and calculus); improving teachers' ability to orchestrate and sustain inquiry-based and discussion-based instruction; technology in mathematics education.

Brian Smith, PhD (*Northwestern University*). Professor. Design of computer-based learning environments; Human-computer interaction; Design sciences.

Toni A. Sondergeld, PhD (*University of Toledo*). Associate Professor. Cognitive and affective assessment development; program/grant evaluation; high stakes testing measurement; STEM education; urban education

Nancy Butler Songer, PhD (*University of California, Davis*) Dean, School of Education. Distinguished Professor. STEM education, urban education, educational assistance

Mary Jean Tecce DeCarlo, EdD (*University of Pennsylvania*). Assistant Clinical Professor. Early literacy development, learning differences, knowledge construction, urban education.

Sarah P. Ulrich, EdD (*Saint Joseph's University*). Associate Clinical Professor. Emphasis in cross-cultural, language and academic development.

Sheila Vaidya, PhD (*Temple University*). Professor. Educational psychology, school psychology, research design.

Christina Vorndran, PhD (*Louisiana State University*). Associate Clinical Professor. Behavior analysis, single subject research methods, functional analysis

Educational Studies & Innovation BS

Major: Educational Studies & Innovation

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Minimum Required Credits: 180.0

Co-op Options: One Co-op (Four years)

Classification of Instructional Programs (CIP) code: 13.0101

Standard Occupational Classification (SOC) code: 25-1081

About the Program

The Bachelor of Science major Educational Studies & Innovation prepares students who are informed about issues of equity and social justice as situated theories of learning and teaching as they relate to the spectrum of formal to informal learning spaces. Students graduate prepared to design, support and analyze educational settings in a variety of contexts (e.g., educational non-profits, youth advocacy, educational entrepreneurial ventures, in schools, community centers, hospitals and museums).

Students will work with their academic advisor to select coursework in their own area of interests.

Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

More information is available at the School of Education's (<https://drexel.edu/soe/academics/undergraduate/Degrees/BS-in-education-non-certification/>) website.

Admission Requirements

- 3 years of math (algebra I and II, geometry) HS
- 1 year of lab science HS
- Standard UG App, Essay and 2 letters of recommendation
- Standard Standardized Test Scores

Degree Requirements

General Education/Content Requirements

CIVC 101	Introduction to Civic Engagement *	1.0
COOP 101	Career Management and Professional Development *	1.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
MATH 101	Introduction to Analysis I	4.0
or MATH 171	Introduction to Analysis A	
MATH 102	Introduction to Analysis II	4.0
or MATH 172	Introduction to Analysis B	
UNIV T101	The Drexel Experience *	1.0
Engaging the Natural World **		6.0-8.0
Analyzing Cultures & Histories **		6.0-8.0
Understanding Society & Human Behavior **		6.0-8.0
Cultivating Global Competence **		6.0-8.0
Perspectives in Diversity **		6.0-8.0

Pedagogy: Educational Contexts

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 411	Family and Community Partnerships	3.0
Pedagogy: Technology & Design		
EDLT 303	The Learning Sciences	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDLT 341	Foundations of Game-Based Learning	3.0
Select four courses from the following:		12.0
EDLT 238	New Media Literacies	
EDLT 302	Learning Experience Design	
EDLT 310	Making Culture: Designing/Maker-Centered Learning Environments	
EDLT 326	Technology Applications for Learning	
EDLT 343	Play and Learning in a Participatory Culture	
EDLT 354	Learning In and Out of Schools	
Pedagogy: Knowledge Construction		
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDUC 123	Adolescent Development	3.0
or EDUC 222	Development in Early Childhood Education	
or EHRD 460	Principles of Adult Learning	
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 326 [WI]	Language Arts Processes	3.0
Free Electives ***		70.0
Total Credits		180.0-190.0

*

UNIV T101, COOP 101 and CIVC 101 are not required for Education transfer students. Instead, these 3.0 credits are replaced with ESTM 342 or free elective.

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

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See Curriculum List (<https://catalog.drexel.edu/undergraduate/collegeofartsandsciences/#corecurriculumtext>) for complete list of course options.

Free Electives are selected in consultation with the Program Director and/or Advisor. You may also choose to declare an Undergraduate Minor.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4 year, 1 co-op

On-campus Full-time Plan of Study

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 101	3.0 CIVC 101	1.0 EDEX 142	3.0 VACATION	
EDUC 106	1.0 EDUC 107	1.0 EDUC 108	1.0	
ENGL 101 or 111	3.0 EDUC 222**	3.0 ENGL 103 or 113	3.0	
UNIV T101	1.0 ENGL 102 or 112	3.0 MATH 102 or 172	4.0	
Understanding Society & Human Behavior	3.0-4.0 MATH 101 or 171	4.0 Understanding Society & Human Behavior	3.0-4.0	
Free Elective	3.0 Engaging in the Natural World	3.0-4.0 Free Elective	3.0	
	14-15	15-16	17-18	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDEX 344	3.0 COOP 101*	1.0 EDEX 368	3.0 EDLT 325	3.0
EDLT 303	3.0 EDLT 238, 302, 310, 326, 343, or 354	3.0 EDLT 238, 302, 310, 326, 343, or 354	3.0 EDPO 312	3.0
Analyzing Cultures & Histories	3.0-4.0 EDUC 216	3.0 EDLT 302, 238, 310, 326, 343, or 354	3.0 EDUC 322	3.0
Free electives	6.0 EDUC 316	3.0 Free electives	6.0 Free electives	6.0
	Engaging in the Natural World	3.0-4.0		
	Perspective: in Diversity	3.0-4.0		
	15-16	16-18	15	15
Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDLT 310, 238, 302, 326, 343, or 354	3.0 EDUC 324	3.0

	Perspective: in Diversity	3.0-4.0 Analyzing Cultures & Histories	3.0-4.0
	Free Electives	9.0 Free electives	9.0
	0	0	15-16
	0	0	15-16
Fourth Year			
Fall	Credits Winter	Credits Spring	Credits
EDLT 341	3.0 Cultivating Global Competence	3.0-4.0 EDUC 326	3.0
EDUC 411	3.0 Free electives	12.0 Free electives	10.0
Cultivating Global Competence	3.0-4.0		
Free electives	6.0		
	15-16	15-16	13
Total Credits 180-190			

*

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

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Students also have an option to select EDUC 123 (available spring term) or EHRD 460 (available fall term).

Transfer/Online Part-time Plan of Study

Successfully completed and equivalent course credits from other institutions will be evaluated for transfer credit by an academic advisor. In addition, an individual plan of study will be created for transfer students based on the official transfer credit evaluation.

First Year (Part-Time)				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 101	3.0 EDUC 107	1.0 EDEX 142	3.0 EDUC 216	3.0
EDUC 106	1.0 EDUC 222*	3.0 EDUC 108	1.0 Analyzing Cultures & Histories	3.0-4.0
ENGL 101 or 111	3.0 ENGL 102 or 112	3.0 ENGL 103	3.0 Free Elective	3.0
Free Elective	3.0 MATH 171 or 101**	3.0 MATH 172 or 102**	3.0	
	10	10	10	9-10
Second Year (Part-Time)				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDEX 344	3.0 EDEX 368	3.0 EDLT 302, 238, 310, 326, 343, or 354	3.0 EDUC 322	3.0
Engaging in the Natural World	3.0-4.0 EDLT 238, 302, 310, 326, 343, or 354	3.0 Free Electives	7.0 Free Electives	6.0
Understanding Society & Human Behavior	3.0-4.0 Engaging in the Natural World	3.0-4.0		

Free Elective	1.0			
	10-12	9-10	10	9
Third Year (Part-Time)				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDLT 303	3.0 EDUC 316	3.0 EDLT 310, 238, 302, 326, 343, or 354	3.0 EDLT 325	3.0
Understanding Society & Human Behavior	3.0-4.0 Cultivating Global Competence	3.0-4.0 Perspective: in Diversity	3.0-4.0 EDPO 312	3.0
Free Elective	3.0 Perspectives in Diversity	3.0-4.0 Free Elective	3.0 EDUC 324	3.0
	9-10	9-11	9-10	9
Fourth Year (Part-Time)				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 411	3.0 EDLT 326, 238, 302, 310, 343, or 354	3.0 EDUC 326	3.0 Free electives	9.0
EDLT 341	3.0 Free Electives	6.0 Free Electives	6.0	
Free elective	3.0			
	9	9	9	9
Fifth Year (Part-Time)				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
Analyzing Cultures & Histories	3.0-4.0 Free electives	9.0 Cultivating Global Competence	3.0-4.0 Free Elective	6.0
Free electives	7.0	Free electives	3.0	
	10-11	9	6-7	6
Total Credits 180-190				

*

Students also have an option to select EDUC 123 (available spring term) or EHRD 460 (available fall term).

**

Transfer students take extra electives due to the MATH option and not required to take COOP 101, CIVC 101 or Univ 101.

Program Level Outcomes

- Analyze educational problems and define requirements for appropriate solutions.
- Develop collaboration and management skills necessary for leading design and implementation projects.
- Develop knowledge and skills in design-based research activities, methods, and projects.
- Articulate the complexities of learning ecosystems composed of formal and informal education through digital and in-person participation in classrooms, communities, and affinity spaces.

Elementary Education BS

Major: Elementary Education

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Minimum Required Credits: 180.0 - 188.0

Co-op Options: One Co-op (Four years)

Classification of Instructional Programs (CIP) code: 13.1202; 13.1311; 13.1316

Standard Occupational Classification (SOC) code: 25-2022

About the Program

Elementary school teachers instruct 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 teacher candidates at the early and elementary education levels. On-campus candidates 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. 8)
- Pre-Kindergarten - Grade 4 & Special Education (p. 10)
- Middle Level (grades 4-8) Mathematics and English (p. 12)
- Middle Level (grades 4-8) Science and English (p. 16)
- Middle Level (grades 4-8) Science and Mathematics (p. 14)

Candidates may acquire certification in more than one subject area.

Elementary Education, Pre-Kindergarten through Grade 4:

Candidates are certified to teach in pre-kindergarten through 4th grade. 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. The special education PK-12 certification dual program also seeks to produce professionals who are equipped with the fundamental skills, knowledge, and competencies necessary to meet the needs of the students at risk for school failure and students with disabilities in multiple settings. This certificate program focuses on students at the pre-kindergarten through secondary level. The Special Education PK-12 certification program is intended for those interested in gaining greater skills and expertise in special education and for obtaining a teaching certificate in PK-12 special education.

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 and English
- Middle School Science and English
- Middle School Science and Math

Candidates pursuing the appropriate majors in the College of Arts and Sciences may also complete the requirements for certification within their area of study through our DragonsTeach and Dragons Teach Middle Years pathways. For more information, contact the program advisor for the School of Education at 215-895-6770.

Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

Elementary Education: PK-4

Major: Elementary Education

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Minimum Required Credits: 180.0

Co-op Options: One Co-op (Four years)

Classification of Instructional (CIP) code: 13.1202

Standard Occupational Classification (SOC) code: 25-2031

About the Concentration

This certification option within the BS in Elementary Education (p. 7) enables teachers to work with children in prekindergarten, 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.

The program requires that candidates 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 EDEX, EDLT, EDPO, EDUC, ESTM, and MTED courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program.

Additional Information

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

Degree Requirements

General Education/Content Requirements

BIO 100	Applied Cells, Genetics & Physiology	3.0
or BIO 161	General Biology I	
BIO 101	Applied Biological Diversity, Ecology & Evolution	3.0
or BIO 162	General Biology II	
CHEM 111	General Chemistry I	4.0
CIVC 101	Introduction to Civic Engagement *	1.0
COM 111	Principles of Communication	3.0
COOP 101	Career Management and Professional Development *	1.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
ENVS 260	Environmental Science and Society	3.0
HIST 275	History of Pennsylvania	3.0
MATH 101	Introduction to Analysis I	4.0
or MATH 171	Introduction to Analysis A	
MATH 102	Introduction to Analysis II	4.0
or MATH 172	Introduction to Analysis B	
MATH 107	Probability and Statistics for Liberal Arts	3.0

or MATH 173	Introduction to Analysis C	
MUSC 130	Introduction to Music	3.0
NFS 100	Nutrition, Foods, and Health	2.0
NFS 101	Introduction to Nutrition & Food	1.0
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	3.0
UNIV T101	The Drexel Experience *	1.0
English (Literature) elective: Select course between ENGL 200 - ENGL 360		3.0
Free electives		11.0
Pedagogy Requirements		
EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 210	Early Language Development	3.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 222	Development in Early Childhood Education	3.0
EDUC 236	Early Literacy I	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 314	Science Teaching Methods	3.0
EDUC 316	Teaching in Urban Contexts	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 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 411	Family and Community Partnerships	3.0
ESTM 342	Teaching Engineering Concepts to Children	3.0
MTED 417	Mathematics Methods and Content: Early Childhood	3.0
MTED 418	Mathematics Methods and Content	3.0
Student Teaching Experience		
EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0
Total Credits		180.0

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COOP 101, CIVC 101 and UNIV T101 are not required for Education transfer students. Instead, these 3.0 credits are replaced with free electives.

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4 year, 1 co-op

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COM 111	3.0 BIO 100 or 161	3.0 EDEX 142	3.0 VACATION	
EDUC 101	3.0 CIVC 101*	1.0 EDUC 108	1.0	
EDUC 106	1.0 EDUC 107	1.0 EDUC 210	3.0	
ENGL 101 or 111	3.0 EDUC 222	3.0 ENGL 103 or 113	3.0	
UNIV T101*	1.0 ENGL 102 or 112	3.0 MATH 102 or 172	4.0	
Free Elective	3.0 MATH 101 or 171	4.0 PSY 101	3.0	
	14	15	17	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
CHEM 111	4.0 BIO 101 or 161	3.0 EDUC 236	3.0 EDPO 312	3.0
EDEX 344	3.0 COOP 101*	1.0 EDUC 305	1.0 EDUC 306	3.0
EDUC 205	1.0 EDUC 216	3.0 EDUC 308	3.0 EDUC 335	3.0
EDUC 365	3.0 EDUC 316	3.0 EDUC 314	3.0 EDUC 338	3.0
MATH 107 or 173	3.0 NFS 100	2.0 EDUC 326	3.0 MUSC 130	3.0
	NFS 101	1.0 PSY 320	3.0	
	PSY 330	3.0		
	14	16	16	15
Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDEX 368	3.0 EDLT 325	3.0
EDUC 336	3.0 MTED 417	3.0 ESTM 342	3.0 EDUC 324	3.0
		ENVS 260	3.0 EDUC 355	3.0
		PHYS 151	3.0 HIST 275	3.0

		English (Literature) Elective: ENGL 200 - ENGL 360	3.0 MTED 418	3.0
	3	3	15	15
Fourth Year				
Fall	Credits Winter	Credits Spring	Credits	
EDUC 405	1.0 EDUC 410	9.0 ECON 201	4.0	
EDUC 409	9.0 Free Elective	3.0 SOC 335	3.0	
EDUC 411	3.0	Free electives	5.0	
	13	12	12	
Total Credits 180				

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COOP 101, CIVC 101 and UNIV T101 are not required for Education transfer students. Instead, these 3.0 credits are replaced with free electives.

Transfer Student Part-time Plan of Study

First Year (Part-Time)				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 101	3.0 EDUC 107	1.0 COM 111	3.0 EDUC 210	3.0
EDUC 106	1.0 EDUC 222	3.0 EDEX 142	3.0 EDUC 216	3.0
ENGL 101 or 111	3.0 ENGL 102 or 112	3.0 EDUC 108	1.0 ENGL 103 or 113	3.0
Free Elective	3.0 MATH 101 or 171	4.0 MATH 102 or 172	4.0 HIST 275	3.0
	10	11	11	12
Second Year (Part-Time)				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
BIO 161	3.0 BIO 162	3.0 EDUC 236	3.0 EDUC 306	3.0
EDEX 344	3.0 EDEX 368	3.0 EDUC 305	1.0 EDUC 335	3.0
EDUC 205	1.0 MUSC 130	3.0 EDUC 365	3.0 ENVS 260	3.0
MATH 107 or 173	3.0	ENGL 200-360 Literature Elective	3.0	
	10	9	10	9
Third Year (Part-Time)				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
ECON 201	4.0 EDUC 316	3.0 CHEM 111	4.0 EDLT 325	3.0
EDUC 326	3.0 NFS 100 & NFS 101	3.0 EDUC 308	3.0 EDPO 312	3.0
	PHYS 151	3.0 PSY 101	3.0 PSY 330	3.0
		SOC 335	3.0	
	7	9	13	9
Fourth Year (Part-Time)				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 336	3.0 EDUC 314	3.0 EDUC 355	3.0 EDUC 324	3.0
EDUC 411	3.0 PSY 320	3.0 ESTM 342	3.0 EDUC 338	3.0
MTED 417	3.0 Free Elective	3.0	MTED 418	3.0
	9	9	6	9
Fifth Year (Part-Time)				
Fall	Credits Winter	Credits Spring	Credits	
EDUC 405	1.0 EDUC 410	9.0 Free electives	8.0	

EDUC 409	9.0		
	10	9	8
Total Credits 180			

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Part-time transfer students do not take COOP 101, CIVC 101, and UNIV T101. Instead, they take 3.0 additional credits of free electives.

Program Level Outcomes

- Make ethical, sound decisions based on the Pennsylvania Professional Code of Conduct.
- Demonstrate leadership in the classroom, school community, and profession that is focused on positive and innovative change.
- Seek ongoing professional growth and development in the field to improve practice.
- Demonstrate a growth mindset and take responsibility for student learning and academic growth.
- Partner with parents in the education of their children.
- Use culturally responsive pedagogy to create equitable learning experiences for all students.
- Use critical self-reflection to understand one's own identity in the context of a classroom of diverse learners.
- Create an inclusive classroom environment with high expectations for all learners.
- Demonstrate the ability to self-reflect on his or her professional practice.
- Use data and classroom-based evidence to inform and improve professional practice.
- Demonstrate strong content knowledge in all subject areas that are developmentally appropriate and aligned with NAEYC standards and program outcomes.
- Deliver effective developmentally informed instruction that is culturally and linguistically sensitive to the children in the class.
- Use appropriate means of ongoing assessment that is developmentally appropriate and sensitive to the unique capabilities of young children and utilize assessment information to make appropriate modifications to the curriculum that will demonstrate children's progress and ensure optimal learning opportunities for all children.
- Integrate tools of technology in teaching and learning that are appropriate for the developmental levels of children and that expand, enrich, implement, individualize, differentiate, and extend the overall curriculum.
- Construct well-written, research-based developmentally appropriate lesson plans that reflect active teaching and learning.
- Create a safe, positive and productive learning environment that supports and facilitates learning for all students.
- Build a sense of community in a collaborative climate, based on developmentally appropriate pro- social skills, where students work collaboratively and have a shared sense of ownership.
- Demonstrate a thorough understanding of child and/or adolescent development and the learning sciences.
- Use differentiated instruction to meet the diverse learning needs of one's students.
- Use developmentally informed teaching practices.

Elementary Education: PK-4 and Special Education

Major: Elementary Education

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Minimum Required Credits: 185.0

Co-op Options: One Co-op (Four years)

Classification of Instructional Programs (CIP) code: 13.1202

Standard Occupational Classification (SOC) code: 25-2022

About the Concentration

This certification option within the BS in Elementary Education (p. 7) enables teachers to work with children in prekindergarten, kindergarten, and grades 1 through 4 (ages 3-9) across subject areas with the addition of being specialized to work with prekindergarten through secondary grade 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; and manage instruction for students with special needs in the inclusive classroom, as well as additional approaches to assessment and special education teaching techniques.

The program requires that candidates 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 EDEX, EDLT, EDPO, EDUC and MTED courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program.

Additional Information

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

Degree Requirements

General Education/Content Requirements

BIO 100	Applied Cells, Genetics & Physiology	3.0
or BIO 161	General Biology I	
BIO 101	Applied Biological Diversity, Ecology & Evolution	3.0
or BIO 162	General Biology II	
CHEM 111	General Chemistry I	4.0
CIVC 101	Introduction to Civic Engagement *	1.0
COM 111	Principles of Communication	3.0
COOP 101	Career Management and Professional Development *	1.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	

ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
English (Literature) elective: Select course between ENGL 200 - ENGL 360		3.0
ENVS 260	Environmental Science and Society	3.0
HIST 275	History of Pennsylvania	3.0
MATH 171	Introduction to Analysis A	3.0
or MATH 101	Introduction to Analysis I	
MATH 172	Introduction to Analysis B	3.0
or MATH 102	Introduction to Analysis II	
MATH 173	Introduction to Analysis C	3.0
or MATH 107	Probability and Statistics for Liberal Arts	
MUSC 130	Introduction to Music	3.0
NFS 100	Nutrition, Foods, and Health	2.0
NFS 101	Introduction to Nutrition & Food	1.0
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	3.0
UNIV T101	The Drexel Experience *	1.0

Pedagogy Requirements

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 222	Development in Early Childhood Education	3.0
EDUC 236	Early Literacy I	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 314	Science Teaching Methods	3.0
EDUC 316	Teaching in Urban Contexts	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 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 411	Family and Community Partnerships	3.0
MTED 417	Mathematics Methods and Content: Early Childhood	3.0
MTED 418	Mathematics Methods and Content	3.0

Special Education Core Courses

EDEX 336	Special Education Law and Processes	3.0
EDEX 348	Emotional and Behavioral Support of Individuals with Disabilities	3.0
EDEX 349	Teaching Individuals with High Incident Disabilities	3.0
EDEX 350	Teaching Individuals with Low Incident Disabilities	3.0
EDEX 352	Integrating Technology for Learning & Achievement	3.0
EDEX 355	Teaching Students with Autism Spectrum Disorders	3.0
EDEX 378	Special Education: Methods & Practices PK-12	3.0
EDEX 388	Implementing Academic Interventions in Inclusive Educational Environments	3.0

Student Teaching Experience		
EDUC 409 [WI]	Teaching Practicum	9.0
EDEX 414 [WI]	Special Education Student Teaching Seminar	9.0
Total Credits		185.0

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COOP 101, CIVC 101 and UNIV T101 are not required for Education transfer students. Instead, these 3.0 credits are replaced with a 3.0 credit elective choice of ESTM 342 or EDEX 375.

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4 year, 1 co-op

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COM 111	3.0 BIO 100 or 161	3.0 CHEM 111	4.0 VACATION	
EDUC 101	3.0 CIVC 101	1.0 EDEX 142	3.0	
EDUC 106	1.0 EDUC 107	1.0 EDUC 108	1.0	
ENGL 101 or 111	3.0 EDUC 216	3.0 ENGL 103 or 113	3.0	
PSY 101	3.0 EDUC 222	3.0 NFS 100	2.0	
UNIV T101	1.0 ENGL 102 or 112	3.0 NFS 101	1.0	
	MATH 171 or 101	3.0 MATH 172 or 102	3.0	
	MUSC 130	3.0		
	14	20	17	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDEX 344	3.0 BIO 101 or 162	3.0 EDEX 350	3.0 EDEX 355	3.0
EDEX 336	3.0 COOP 101	1.0 EDEX 352	3.0 EDPO 312	3.0

EDEX 349	3.0 EDEX 348	3.0 EDUC 236	3.0 EDUC 306	3.0
EDUC 205	1.0 EDEX 368	3.0 EDUC 305	1.0 EDUC 335	3.0
EDUC 365	3.0 EDUC 316	3.0 EDUC 314	3.0 EDUC 338	3.0
MATH 107 or 173	3.0 PSY 330	3.0 EDUC 308	3.0 ENVS 260	3.0
		PHYS 151	3.0	
16		16	19	18
Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	ECON 201	4.0 EDLT 325	3.0
EDUC 336	3.0 MTED 417	3.0 EDEX 378	3.0 EDUC 324	3.0
		EDEX 388	3.0 EDUC 355	3.0
		EDUC 326	3.0 HIST 275	3.0
		SOC 335	3.0 MTED 418	3.0
		ENGL Literature (ENGL 200-260)	3.0	
3		3	19	15
Fourth Year				
Fall	Credits Winter	Credits		
EDUC 405	1.0 EDEX 414	9.0		
EDUC 409	9.0 PSY 320	3.0		
EDUC 411	3.0			
13		12		
Total Credits 185				

Program Level Outcomes

- Make ethical, sound decisions based on the Pennsylvania Professional Code of Conduct.
- Demonstrate leadership in the classroom, school community, and profession that is focused on positive and innovative change.
- Seek ongoing professional growth and development in the field to improve practice.
- Demonstrate a growth mindset and take responsibility for student learning and academic growth.
- Partner with parents in the education of their children.
- Use culturally responsive pedagogy to create equitable learning experiences for all students.
- Use critical self-reflection to understand one's own identity in the context of a classroom of diverse learners.
- Create an inclusive classroom environment with high expectations for all learners.
- Demonstrate the ability to self-reflect on his or her professional practice.
- Use data and classroom-based evidence to inform and improve professional practice.
- Demonstrate strong content knowledge in all subject areas that are developmentally appropriate and aligned with NAEYC standards and program outcomes.
- Deliver effective developmentally informed instruction that is culturally and linguistically sensitive to the children in the class.
- Use appropriate means of ongoing assessment that is developmentally appropriate and sensitive to the unique capabilities of young children and utilize assessment information to make appropriate modifications to the curriculum that will demonstrate children's progress and ensure optimal learning opportunities for all children.

- Integrate tools of technology in teaching and learning that are appropriate for the developmental levels of children and that expand, enrich, implement, individualize, differentiate, and extend the overall curriculum.
- Construct well-written, research-based developmentally appropriate lesson plans that reflect active teaching and learning.
- Create a safe, positive and productive learning environment that supports and facilitates learning for all students.
- Build a sense of community in a collaborative climate, based on developmentally appropriate pro- social skills, where students work collaboratively and have a shared sense of ownership.
- Demonstrate a thorough understanding of child and/or adolescent development and the learning sciences.
- Use differentiated instruction to meet the diverse learning needs of one's students.
- Use developmentally informed teaching practices.

Elementary Education: Middle Level Math and English

Major: Elementary Education

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Minimum Required Credits: 180.0

Co-op Options: One Co-op (Four years)

Classification of Instructional (CIP) code: 13.1202

Standard Occupational Classification (SOC) code: 25-2022

About the Concentration

This certification option within the BS in Elementary Education (p. 7) 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 and individual and group's needs; (2) courses devoted to teaching, age-appropriate, reading skills, and how to teach and assess writing effectively, as well as a specialized course in the genre of young adult fiction.

The program requires that candidates 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 EDEX, EDLT, EDPO, EDUC, and MTED courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program.

Additional Information

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

Degree Requirements

General Education/Content Requirements

ARTH 101	History of Art I	3.0
BIO 100	Applied Cells, Genetics & Physiology	3.0
or BIO 161	General Biology I	
BIO 101	Applied Biological Diversity, Ecology & Evolution	3.0
or BIO 162	General Biology II	
CHEM 111	General Chemistry I	4.0
CIVC 101	Introduction to Civic Engagement	1.0
COM 111	Principles of Communication	3.0
COOP 101	Career Management and Professional Development *	1.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
ENGL 304	Young Adult Fiction	3.0
ENVS 260	Environmental Science and Society	3.0
HIST 201	United States History to 1815	4.0
HIST 275	History of Pennsylvania	3.0
LING 101	Introduction to Linguistics	3.0
MATH 101	Introduction to Analysis I	4.0
or MATH 171	Introduction to Analysis A	
MATH 102	Introduction to Analysis II	4.0
or MATH 172	Introduction to Analysis B	
MATH 107	Probability and Statistics for Liberal Arts	3.0
or MATH 173	Introduction to Analysis C	
MATH 205	Survey of Geometry	3.0
MUSC 130	Introduction to Music	3.0
NFS 100	Nutrition, Foods, and Health	2.0
NFS 101	Introduction to Nutrition & Food	1.0
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	3.0
UNIV T101	The Drexel Experience	1.0
WRIT 225 [WI]	Creative Writing	3.0
or WRIT 301	Writing Poetry	
Pedagogy Requirements		
EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDLT 326	Technology Applications for Learning	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 316	Teaching in Urban Contexts	3.0

EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 326 [WI]	Language Arts Processes	3.0
EDUC 355	Social Studies Teaching Methods	3.0
EDUC 360	English/Language Arts Teaching Methods for the Middle Years	1.5
EDUC 361	Middle Years Science Methods	1.5
EDUC 362	Middle Years Social Studies Methods	1.5
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
MTED 363	Middle Years Mathematics Methods (4-8)	1.5
MTED 418	Mathematics Methods and Content	3.0
Student Teaching Experience		
EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0
Free Electives		13.0
Total Credits		180.0

*

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4 year, 1 co-op

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
BIO 100 or 161	3.0 CIVC 101	1.0 EDEX 142	3.0 VACATION	
EDUC 101	3.0 COM 111	3.0 EDUC 108	1.0	
EDUC 106	1.0 EDUC 107	1.0 EDUC 123	3.0	
ENGL 101 or 111	3.0 ENVS 260	3.0 ENGL 103 or 113	3.0	
MATH 101 or 171	4.0 ENGL 102 or 112	3.0 MATH 107 or 173	3.0	
UNIV T101	1.0 MATH 102 or 172	4.0 PSY 101	3.0	

MUSC 130		3.0		
15	18	16	0	
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP 101	1.0 BIO 101 or 162	3.0 EDEX 368	3.0 CHEM 111	4.0
EDEX 344	3.0 EDUC 216	3.0 EDUC 305	1.0 EDLT 325	3.0
EDUC 205	1.0 LING 101	3.0 EDUC 308	3.0 EDUC 306	3.0
EDUC 361	1.5 PHYS 151	3.0 ENGL 304	3.0 MTED 418	3.0
EDUC 362	1.5 WRIT 225 or 301	3.0 MATH 205	3.0	
EDUC 365	3.0	Free Elective	4.0	
HIST 201	4.0			
15	15	17	13	
Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDLT 326	3.0 ECON 201	4.0
EDUC 360	1.5	EDUC 316	3.0 EDPO 312	3.0
MTED 363	1.5	EDUC 355	3.0 EDUC 324	3.0
		PSY 320	3.0 EDUC 355	3.0
		SOC 335	3.0 HIST 275	3.0
3	0	15	16	
Fourth Year				
Fall	Credits Winter	Credits Spring	Credits	
EDUC 409	9.0 EDUC 410	9.0 ARTH 101	3.0	
EDUC 405	1.0 Free elective	3.0 NFS 100	2.0	
Free elective	3.0	NFS 101	1.0	
		PSY 330	3.0	
		Free elective	3.0	
13	12	12		
Total Credits 180				

Program Level Outcomes

- Make ethical, sound decisions based on the Pennsylvania Professional Code of Conduct.
- Demonstrate leadership in the classroom, school community, and profession that is focused on positive and innovative change.
- Seek ongoing professional growth and development in the field to improve practice.
- Demonstrate a growth mindset and take responsibility for student learning and academic growth.
- Partner with parents in the education of their children.
- Use culturally responsive pedagogy to create equitable learning experiences for all students.
- Use critical self-reflection to understand one's own identity in the context of a classroom of diverse learners.
- Create an inclusive classroom environment with high expectations for all learners.
- Demonstrate the ability to self-reflect on his or her professional practice.
- Use data and classroom-based evidence to inform and improve professional practice.
- Demonstrate strong content knowledge in all subject areas that are developmentally appropriate and aligned with NAEYC standards and program outcomes.

- Deliver effective developmentally informed instruction that is culturally and linguistically sensitive to the children in the class.
- Use appropriate means of ongoing assessment that is developmentally appropriate and sensitive to the unique capabilities of young children and utilize assessment information to make appropriate modifications to the curriculum that will demonstrate children's progress and ensure optimal learning opportunities for all children.
- Integrate tools of technology in teaching and learning that are appropriate for the developmental levels of children and that expand, enrich, implement, individualize, differentiate, and extend the overall curriculum.
- Construct well-written, research-based developmentally appropriate lesson plans that reflect active teaching and learning.
- Create a safe, positive and productive learning environment that supports and facilitates learning for all students.
- Build a sense of community in a collaborative climate, based on developmentally appropriate pro- social skills, where students work collaboratively and have a shared sense of ownership.
- Demonstrate a thorough understanding of child and/or adolescent development and the learning sciences.
- Use differentiated instruction to meet the diverse learning needs of one's students.
- Use developmentally informed teaching practices.

Elementary Education: Middle Level Science and Math

Major: Elementary Education

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Minimum Required Credits: 180.0

Co-op Options: One Co-op (Four years)

Classification of Instructional (CIP) code: 13.1202

Standard Occupational Classification (SOC) code: 25-2022

About the Concentration

This certification option within the BS in Elementary Education (p. 7) enables 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.

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, and individual and group's 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, and creating and maintaining a safe laboratory) as well as other skills necessary to meet the needs of diverse learners in science education.

The program requires that candidates 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 EDEX, EDLT, EDPO, EDUC, ESTM, and

MTED courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program.

Additional Information

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

Degree Requirements

General Education/Content Requirements		
ARTH 101	History of Art I	3.0
BIO 100	Applied Cells, Genetics & Physiology	3.0
or BIO 161	General Biology I	
BIO 101	Applied Biological Diversity, Ecology & Evolution	3.0
or BIO 162	General Biology II	
CHEM 111	General Chemistry I	4.0
CIVC 101	Introduction to Civic Engagement	1.0
COM 111	Principles of Communication	3.0
COOP 101	Career Management and Professional Development *	1.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
ENGL 304	Young Adult Fiction	3.0
ENVS 260	Environmental Science and Society	3.0
Select one of the following		4.0
HIST 275	History of Pennsylvania	3.0
HIST 201	United States History to 1815	
or HIST 202	United States History, 1815-1900	
or HIST 203	United States History since 1900	
MATH 101	Introduction to Analysis I	4.0
or MATH 171	Introduction to Analysis A	
MATH 102	Introduction to Analysis II	4.0
or MATH 102	Introduction to Analysis II	
MATH 107	Probability and Statistics for Liberal Arts	3.0
or MATH 173	Introduction to Analysis C	
MATH 205	Survey of Geometry	3.0
MUSC 130	Introduction to Music	3.0
NFS 100	Nutrition, Foods, and Health	2.0
NFS 101	Introduction to Nutrition & Food	1.0
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	3.0
UNIV T101	The Drexel Experience	1.0
Free electives		16.0
Pedagogy Requirements		
EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDLT 326	Technology Applications for Learning	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0

EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 326 [WI]	Language Arts Processes	3.0
EDUC 355	Social Studies Teaching Methods	3.0
EDUC 360	English/Language Arts Teaching Methods for the Middle Years	1.5
EDUC 361	Middle Years Science Methods	1.5
EDUC 362	Middle Years Social Studies Methods	1.5
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
ESTM 342	Teaching Engineering Concepts to Children	3.0
MTED 363	Middle Years Mathematics Methods (4-8)	1.5
MTED 418	Mathematics Methods and Content	3.0
Student Teaching Experience		
EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0
Total Credits		180.0

*

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4 year, 1 co-op

First Year

Fall	Credits Winter	Credits Spring	Credits Summer	Credits
BIO 100 or 161	3.0 CIVC 101	1.0 EDEX 142	3.0 VACATION	
EDUC 101	3.0 COM 111	3.0 EDUC 108	1.0	
EDUC 106	1.0 EDUC 107	1.0 EDUC 123	3.0	
ENGL 101 or 111	3.0 ENGL 102 or 112	3.0 ENGL 103 or 113	3.0	
MATH 101 or 171	4.0 MATH 102 or 172	4.0 ENVS 260	3.0	
UNIV T101	1.0 MUSC 130	3.0 MATH 107 or 173	3.0	
	15	15	16	0

Second Year

Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP 101*	1.0 ARTH 101	3.0 EDEX 368	3.0 CHEM 111	4.0
EDEX 344	3.0 BIO 101 or 162	3.0 EDUC 216	3.0 EDLT 325	3.0
EDUC 205	1.0 PHYS 151	3.0 EDUC 305	1.0 EDPO 312	3.0
EDUC 360	1.5 PSY 101	3.0 EDUC 308	3.0 EDUC 306	3.0
EDUC 362	1.5	MATH 205	3.0 HIST 275	3.0
EDUC 365	3.0	Free Elective	3.0	
Free Elective	3.0			
	14	12	16	16

Third Year

Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDLT 326	3.0 ECON 201	4.0
EDUC 361	1.5	EDUC 316	3.0 EDUC 324	3.0
MTED 363	1.5	EDUC 326	3.0 PSY 330	3.0
		EDUC 355	3.0 MTED 418	3.0
		PSY 320	3.0 Free Elective	4.0
		ENGL 304	3.0	
	3	0	18	17

Fourth Year

Fall	Credits Winter	Credits Spring	Credits
EDUC 409	9.0 EDUC 410	9.0 EDUC 405	1.0
Free Elective	3.0 Free Elective	3.0 ESTM 342	3.0
		HIST 201, 202, or 203	4.0
		NFS 100	2.0
		NFS 101	1.0
		SOC 335	3.0
	12	12	14

Total Credits 180

*

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COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Program Level Outcomes

Upon completion of the program graduates will be prepared to:

- Make ethical, sound decisions based on the Pennsylvania Professional Code of Conduct.
- Demonstrate leadership in the classroom, school community, and profession that is focused on positive and innovative change.
- Seek ongoing professional growth and development in the field to improve practice.
- Demonstrate a growth mindset and take responsibility for student learning and academic growth.
- Partner with parents in the education of their children.
- Use culturally responsive pedagogy to create equitable learning experiences for all students.
- Use critical self-reflection to understand one's own identity in the context of a classroom of diverse learners.
- Create an inclusive classroom environment with high expectations for all learners.
- Demonstrate the ability to self-reflect on his or her professional practice.
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- Demonstrate strong content knowledge in all subject areas that are developmentally appropriate and aligned with NAEYC standards and program outcomes.
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- Construct well-written, research-based developmentally appropriate lesson plans that reflect active teaching and learning.
- Create a safe, positive and productive learning environment that supports and facilitates learning for all students.
- Build a sense of community in a collaborative climate, based on developmentally appropriate pro- social skills, where students work collaboratively and have a shared sense of ownership.
- Demonstrate a thorough understanding of child and/or adolescent development and the learning sciences.
- Use differentiated instruction to meet the diverse learning needs of one's students.
- Use developmentally informed teaching practices.

Elementary Education: Middle Level Science and English

Major: Elementary Education

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Total Credit Hours: 180.0

Co-op Options: One Co-op (Four years)

Classification of Instructional (CIP) code: 13.1202

Standard Occupational Classification (SOC) code: 25-2022

About the Concentration

This certification option within the BS in Elementary Education (p. 7) enables 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.

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COOP 101	Career Management and Professional Development *	1.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
ENGL 304	Young Adult Fiction	3.0
ENVS 260	Environmental Science and Society	3.0
Select one of the following		4.0
HIST 201	United States History to 1815	
or HIST 202	United States History, 1815-1900	

or HIST 203	United States History since 1900	
HIST 275	History of Pennsylvania	3.0
LING 101	Introduction to Linguistics	3.0
MATH 101	Introduction to Analysis I	4.0
or MATH 171	Introduction to Analysis A	
MATH 102	Introduction to Analysis II	4.0
or MATH 172	Introduction to Analysis B	
MATH 107	Probability and Statistics for Liberal Arts	3.0
or MATH 173	Introduction to Analysis C	
MUSC 130	Introduction to Music	3.0
NFS 100	Nutrition, Foods, and Health	2.0
NFS 101	Introduction to Nutrition & Food	1.0
PHYS 151	Applied Physics	3.0
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SOC 335	Sociology of Education	3.0
UNIV T101	The Drexel Experience	1.0
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Free electives		13.0
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EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDLT 326	Technology Applications for Learning	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 326 [WI]	Language Arts Processes	3.0
EDUC 355	Social Studies Teaching Methods	3.0
EDUC 360	English/Language Arts Teaching Methods for the Middle Years	1.5
EDUC 361	Middle Years Science Methods	1.5
EDUC 362	Middle Years Social Studies Methods	1.5
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
ESTM 342	Teaching Engineering Concepts to Children	3.0
MTED 363	Middle Years Mathematics Methods (4-8)	1.5
MTED 418	Mathematics Methods and Content	3.0
Student Teaching Experience		
EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0
Total Credits		180.0

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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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4 year, 1 co-op

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
BIO 100 or 161	3.0 CIVC 101	1.0 EDEX 142	3.0 VACATION	
EDUC 101	3.0 COM 111	3.0 EDUC 108	1.0	
EDUC 106	1.0 EDUC 107	1.0 EDUC 123	3.0	
ENGL 101 or 111	3.0 ENGL 102 or 112	3.0 ENGL 103 or 113	3.0	
MATH 101 or 171	4.0 MATH 102 or 172	4.0 LING 101	3.0	
UNIV T101	1.0 MUSC 130	3.0 MATH 107 or 173	3.0	
	15	15	16	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP 101	1.0 BIO 101 or 162	3.0 EDEX 368	3.0 CHEM 111	4.0
EDEX 344	3.0 EDPO 312	3.0 EDUC 305	1.0 EDLT 325	3.0
EDUC 205	1.0 EDUC 216	3.0 EDUC 308	3.0 ENVS 260	3.0
EDUC 365	3.0 EDUC 306	3.0 MTED 418	3.0 HIST 275	3.0
EDUC 362	1.5 PHYS 151	3.0 SOC 335	3.0 Free Elective	4.0
HIST 201	4.0 WRIT 225	3.0		
MTED 363	1.5			
PSY 101	3.0			
	18	18	13	17

Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDLT 326	3.0 ECON 201	4.0
EDUC 360	1.5	EDUC 316	3.0 EDUC 324	3.0
EDUC 361	1.5	EDUC 326	3.0 EDUC 355	3.0
		ESTM 342	3.0 ENGL 304	3.0
		PSY 320	3.0	
	3	0	15	13
Fourth Year				
Fall	Credits Winter	Credits Spring	Credits	
EDUC 409	9.0 EDUC 410	9.0 ARTH 101	3.0	
EDUC 405	1.0 Free Elective	3.0 NFS 100	2.0	
Free Elective	2.0	NFS 101	1.0	
		PSY 330	3.0	
		Free Elective	4.0	
	12	12	13	
Total Credits 180				

Program Level Outcomes

- Make ethical, sound decisions based on the Pennsylvania Professional Code of Conduct.
- Demonstrate leadership in the classroom, school community, and profession that is focused on positive and innovative change.
- Seek ongoing professional growth and development in the field to improve practice.
- Demonstrate a growth mindset and take responsibility for student learning and academic growth.
- Partner with parents in the education of their children.
- Use culturally responsive pedagogy to create equitable learning experiences for all students.
- Use critical self-reflection to understand one's own identity in the context of a classroom of diverse learners.
- Create an inclusive classroom environment with high expectations for all learners.
- Demonstrate the ability to self-reflect on his or her professional practice.
- Use data and classroom-based evidence to inform and improve professional practice.
- Demonstrate strong content knowledge in all subject areas that are developmentally appropriate and aligned with NAEYC standards and program outcomes.
- Deliver effective developmentally informed instruction that is culturally and linguistically sensitive to the children in the class.
- Use appropriate means of ongoing assessment that is developmentally appropriate and sensitive to the unique capabilities of young children and utilize assessment information to make appropriate modifications to the curriculum that will demonstrate children's progress and ensure optimal learning opportunities for all children.
- Integrate tools of technology in teaching and learning that are appropriate for the developmental levels of children and that expand, enrich, implement, individualize, differentiate, and extend the overall curriculum.
- Construct well-written, research-based developmentally appropriate lesson plans that reflect active teaching and learning.

- Create a safe, positive and productive learning environment that supports and facilitates learning for all students.
- Build a sense of community in a collaborative climate, based on developmentally appropriate pro- social skills, where students work collaboratively and have a shared sense of ownership.
- Demonstrate a thorough understanding of child and/or adolescent development and the learning sciences.
- Use differentiated instruction to meet the diverse learning needs of one's students.
- Use developmentally informed teaching practices.

Learning Sciences, Experience Design, and Technology BS

Major: Learning Sciences, Experience Design, and Technology

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Minimum Required Credits: 180.0

Co-op Options: One Co-op (Four years)

Classification of Instructional Programs (CIP) code: 13.0501

Standard Occupational Classification (SOC) code: 13-1151

About the Program

Note: Applications are no longer being accepted for this program.

This Bachelor of Science degree completion program (90 transfer credits can be applied toward your BS degree completion). The program is offered exclusively online providing a meaningful credential for future leaders, managers, and workers focused on learning that occurs outside of traditional PK-12 teaching careers. Entrepreneurs are encouraged to apply. The program is appropriate for those who want to be equipped with the working knowledge and experience needed to improve outcomes, for learners of all ages and in all contexts. Students who complete this degree will be prepared to apply their skills and talents addressing learning in and out of traditional formal education settings and will have practical lab-based and industry experience to build on.

This learner-centered online degree can be completed in as little as two years of full-time study or longer on a part-time schedule. The program provides significant choices for elective coursework enabling a personalized approach. The degree is centered on the practical benefits of the evolving field of learning engineering, the learning sciences, and learning experience design, coupled with maker-labs, social media, and a practical knowledge of learning throughout the lifespan. Taken together with courses in creativity and innovation and human resource development, this enriched degree is appropriate preparation for careers in designing and developing learning environments for any age-group, including adult learners in professional contexts.

This bachelor's degree program is designed for current or future professionals in for-profit organizations, non-profits, schools, government, and higher education, or any employee seeking to improve and innovate learning by creating effective environments and experiences created and delivered through advanced learning technologies for learners of any age-group from children to working-age adults to seniors.

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

Admission Requirements

Completed application, Personal essay, Official transcripts

To be eligible for admission to this program, students may transfer up to 60.0 semester (90.0 quarter credits) of college credits towards Tier I. Students may enroll in Tier I coursework if they have not completed the maximum transfer credit hours. To graduate, students must have completed 180.0 quarter credits.

Degree Requirements

Tier I Courses

ANTH 101	Introduction to Cultural Diversity	3.0
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	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
HIST 201	United States History to 1815	4.0
or HIST 202	United States History, 1815-1900	
or HIST 203	United States History since 1900	
MATH 101	Introduction to Analysis I	4.0
MUSC 130	Introduction to Music	3.0
PHYS 151	Applied Physics	3.0
PSY 101	General Psychology I	3.0
PSY 330	Cognitive Psychology	3.0
SOC 335	Sociology of Education	3.0
Free Electives		38.0

Tier II Courses

CRTV 301	Foundations in Creativity	3.0
CRTV 303	Creativity in the Workplace	3.0
EDLT 101	Learning, Culture & Technology Workshop I	3.0
EDLT 201	Learning, Culture and Technology Workshop II	3.0
EDLT 250	Sociocultural Perspectives on Learning	3.0
EDLT 302	Learning Experience Design	3.0
EDLT 303	The Learning Sciences	3.0
EDLT 304	Learning Engineering	3.0
EDLT 310	Making Culture: Designing/Maker-Centered Learning Environments	3.0
EDLT 312	Using and Integrating Learning Technologies	3.0
EDLT 341	Foundations of Game-Based Learning	3.0
EDLT 355	Learning with Social Media and Mobiles	3.0
EDLT 391	Learning Analytics: Lenses on Students, Teaching, and Curriculum Enactment	3.0
EDLT 395	Learning through the Lifespan	3.0
EDLT 491	Senior Project I	3.0
EDLT 492	Senior Project II	3.0
EDLT 493	Senior Project III	3.0
EHRD 460	Principles of Adult Learning	3.0
ELL 304	Learning Technologies and Disabilities	3.0
Free Electives		6.0
Suggested Electives *		27.0

Total Credits

180.0

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Suggested Electives: CRTV 302, CRTV 300, CRTV 304, CRTV 308, EDLT 238, EDLT 343, EDLT 344, EDLT 352, EDLT 354, EDLT 396, EDPO 312, ELL 303, EDUC 316, EDUC 335, EDUC 411, ESTM 342, SCL 201

Sample Plan of Study

Enrollment in Tier II assumes the student has completed the minimum credit hours in Tier I.

Tier II, Full-time Sample Plan of Study

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDLT 304	3.0 EDLT 101	3.0 CRTV 301	3.0 VACATION	
EDLT 310	3.0 EDLT 303	3.0 EDLT 201	3.0	
EDLT 312	3.0 EDLT 395	3.0 EDLT 302	3.0	
EDLT 341	3.0 Free Elective	3.0 ELL 304	3.0	
Suggested Elective	3.0 Suggested Elective	3.0 Suggested Elective	3.0	
	15	15	15	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDLT 391	3.0 CRTV 303	3.0 EDLT 355	3.0	
EDLT 491	3.0 EDLT 250	3.0 EDLT 493	3.0	
EHRD 460	3.0 EDLT 492	3.0 Free Elective	3.0	
Suggested Electives	6.0 Suggested Electives	6.0 Suggested Electives	6.0	
	15	15	15	
Total Credits 90				

Tier II, Part-time Sample Plan of Study

First Year (Part-Time)				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDLT 304	3.0 EDLT 101	3.0 EDLT 201	3.0 CRTV 301	3.0
EDLT 310	3.0 EDLT 303	3.0 EDLT 302	3.0 ELL 304	3.0
EDLT 312	3.0 EDLT 395	3.0 Suggested Elective	3.0 Suggested Elective	3.0
	9	9	9	9
Second Year (Part-Time)				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDLT 341	3.0 CRTV 303	3.0 EDLT 355	3.0 Free Elective	3.0
EDLT 391	3.0 EDLT 250	3.0 Suggested Elective	3.0 Suggested Elective	3.0
EHRD 460	3.0 Suggested Elective	3.0		
	9	9	6	6
Third Year (Part-Time)				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDLT 491	3.0 EDLT 492	3.0 EDLT 493	3.0	
Free Elective	3.0 Suggested Electives	6.0 Suggested Elective	3.0	
Suggested Elective	3.0			
	9	9	6	
Total Credits 90				

Program Level Outcomes

- Analyze educational problems and define requirements for appropriate solutions.
- Analyze the local and global impact of computing on learning in and outside of schools.
- Evaluate and assess emerging technologies, e.g., assistive technologies, mobile applications, simulations, and online assessment tools.
- Demonstrate an understanding of ethical, social, and cultural issues associated with education and technology.
- Demonstrate an understanding of social justice, equality and equity, diversity and inclusion and civic engagement.
- Develop knowledge and skills in design-based research activities, methods, and projects.
- Develop collaboration and management skills necessary for leading design and implementation projects.
- Apply instructional design principles, methods, and digital media for high quality learning formats that align with 21st Century Standards for a variety of learning environments throughout the lifespan.
- Design, implement, market, and assess online learning and e-learning strategies for effective and transformative distance, hybrid, and face to face learning at all educational and training levels.
- Develop digital performance support tools and formats for just-in-time learning and support throughout the workflow.
- Develop knowledge and skills in educational technology research activities, methods, and action research projects.
- Assess and evaluate emerging digital technologies, e.g., assistive technologies, mobile applications, simulations, and online assessment tools.
- Design and integrate appropriate strategies for learners with disabilities creating accessible and equitable environments for learning.
- Design, develop, adopt, and integrate innovative learning environments, including game-based learning strategies, techniques, and approaches in designing effective and innovative learning environments.
- Use technologies to communicate, collaborate, solve problems, make decisions, and conduct research, as well as foster creativity and life-long learning, making particular use of learning analytics methods and processes to inform action.
- Lead educational, development, and other organizations through the application of learning technology in current educational trends, educational interventions, and global contexts.
- Integrate technology-based tools for effective and transformative teaching and learning, creating safe, positive and productive online and e-learning environments that support and facilitate learning for all learners.
- Demonstrate a thorough understanding of developmentally appropriate lifespan learning based on the learning sciences.
- Expand the understanding of formative and summative assessments and their collective use for designing learning experiences.
- Use appropriate means of ongoing technology-based and traditional assessment and utilize data to demonstrate learner growth and make appropriate modifications to the curriculum.
- Become an academic leader in technology leadership through the development of new ideas, theories and best practices grounded in global and local contexts.

- Demonstrate competency with the legal requirements as well as ethical and professional standards that govern the use and implementation of Learning Technologies.

Special Education PK-12 BS

Major: Special Education PK-12

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Minimum Required Credits:181.0

Co-op Options: No Co-op (Four years)

Classification of Instructional Programs (CIP) code: 13.1001

Standard Occupational Classification (SOC) code: 25-2051; 25-2055; 25-2056; 20-2057; 25-2058

About the Program

Special educators are in a unique position to support diverse young learners to develop social, emotional, academic, and life skills that will serve them throughout their lives. The role of the special educator is challenging and rewarding and requires extensive knowledge and practical experience and insight into their learners' unique abilities and challenges. Drexel's BS in Special Education offers students the opportunity to develop professional knowledge and skills to assist these learners in a full- or part-time online option.

The courses address all required state and federal regulations as well as the Pennsylvania General Standards for Special Education and the competencies and standards outlined by the Council for Exceptional Children (CEC). Most courses include a fieldwork component that helps the student apply the skills and content learned in the classroom to real world educational environments. Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

The program requires that candidates 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 EDEX, EDLT, EDPO, EDUC and MTED courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program.

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

Admission Requirements

- HS Diploma or GED (in last 2 years) plus transcript
- SAT/ACT score no more than 5 years old

Degree Requirements

General Education/Content Requirements

Art History or Music Elective (Choose one):		3.0
ARTH 101	History of Art I	
ARTH 102	History of Art II	
ARTH 103	History of Art III	
ARTH 316	African Art	
MUSC 130	Introduction to Music	
BIO 161	General Biology I	3.0
BIO 162	General Biology II	3.0
Science Elective (Choose One):		3.0-4.0

CHEM 111	General Chemistry I	
ENVS 260	Environmental Science and Society	
PHYS 131	Survey of the Universe	
PHYS 151	Applied Physics	
COM 111	Principles of Communication	3.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
English (Literature) elective: Select course between ENGL 200 - ENGL 360		3.0
HIST 275	History of Pennsylvania	3.0
MATH 107	Probability and Statistics for Liberal Arts	3.0
MATH 110	Precalculus	3.0
MATH 171	Introduction to Analysis A	3.0
MATH 172	Introduction to Analysis B	3.0
NFS 100	Nutrition, Foods, and Health	2.0
NFS 101	Introduction to Nutrition & Food	1.0
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	3.0
Pedagogy Requirements		
EDLT 325	Design for Learning with Digital Media	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 222	Development in Early Childhood Education	3.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 236	Early Literacy I	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 314	Science Teaching Methods	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 336	Early Literacy II	3.0
EDUC 355	Social Studies Teaching Methods	3.0
EDUC 360	English/Language Arts Teaching Methods for the Middle Years	1.5
EDUC 361	Middle Years Science Methods	1.5
EDUC 362	Middle Years Social Studies Methods	1.5
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 411	Family and Community Partnerships	3.0
MTED 363	Middle Years Mathematics Methods (4-8)	1.5
MTED 417	Mathematics Methods and Content: Early Childhood	3.0
MTED 418	Mathematics Methods and Content	3.0
Special Education Core Courses		
EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 336	Special Education Law and Processes	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 348	Emotional and Behavioral Support of Individuals with Disabilities	3.0
EDEX 349	Teaching Individuals with High Incident Disabilities	3.0
EDEX 350	Teaching Individuals with Low Incident Disabilities	3.0

EDEX 352	Integrating Technology for Learning & Achievement	3.0
EDEX 355	Teaching Students with Autism Spectrum Disorders	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDEX 375	Teaching STEAM in an Inclusive Environment PK-12	3.0
EDEX 378	Special Education: Methods & Practices PK-12	3.0
EDEX 388	Implementing Academic Interventions in Inclusive Educational Environments	3.0
Student Teaching Experience		
EDUC 409 [WI]	Teaching Practicum	9.0
EDEX 414 [WI]	Special Education Student Teaching Seminar	9.0
Free Elective		3.0
Total Credits		181.0-182.0

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

First Year (Part-Time)							
Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
EDUC 101	3.0	EDUC 107	1.0	EDEX 142	3.0	EDUC 216	3.0
EDUC 106	1.0	EDUC 222	3.0	EDUC 108	1.0	ENGL 103	3.0
ENGL 101	3.0	ENGL 102	3.0	Free Elective	3.0	HIST 275	3.0
PSY 101	3.0	MATH 171	3.0	MATH 172	3.0		
10		10		10		9	
Second Year (Part-Time)							
Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
BIO 161	3.0	BIO 162	3.0	EDUC 236	3.0	EDEX 336	3.0
EDEX 344	3.0	EDEX 368	3.0	EDUC 305	1.0	EDPO 312	3.0
EDUC 205	1.0	EDUC 322	3.0	EDUC 308	3.0	Art History or Music Elective	3.0
MATH 107	3.0			EDUC 365	3.0		
10		9		10		9	
Third Year (Part-Time)							
Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
EDEX 349	3.0	EDEX 355	3.0	EDEX 352	3.0	EDEX 350	3.0
EDEX 375	3.0	EDUC 316	3.0	Literature Elective	3.0	EDLT 325	3.0
MATH 110	3.0	NFS 100	2.0	Science Elective	3.0	3.0-4.0 EDUC 355	3.0

	NFS 101		1.0			
	9		9		9-10	9
Fourth Year (Part-Time)						
Fall	Credits Winter		Credits Spring		Credits Summer	Credits
EDEX 378	3.0 EDEX 348		3.0 EDEX 388		3.0 EDUC 360	1.5
EDUC 324	3.0 EDUC 314		3.0 EDUC 336		3.0 EDUC 361	1.5
EDUC 411	3.0 PSY 320		3.0 MTED 417		3.0 EDUC 362	1.5
					MTED 363	1.5
	9		9		9	6
Fifth Year (Part-Time)						
Fall	Credits Winter		Credits Spring		Credits Summer	Credits
EDUC 405	1.0 EDEX 414		9.0 COM 111		3.0 MTED 418	3.0
EDUC 409	9.0		ECON 201		4.0 PSY 330	3.0
			SOC 335		3.0	
	10		9		10	6
Total Credits 181-182						

Program Level Outcomes

- Use multiple reliable and valid methods to assess student strengths and needs and make instructional recommendations based on assessment data.
- Demonstrate collaborative partnerships with stakeholders (including educational team members, family members and students) in the development, implementation and assessment of individualized educational plans and goals.
- Create and support inclusive learning environments where all learners are welcomed, challenged and held to high expectations.
- Demonstrate competency with the legal requirements as well as ethical and professional standards that undergird the practice of Special Education.
- Exhibit competence in selecting and executing evidence-based behavioral, instructional, and technology strategies to address the diverse needs of students with disabilities.

Teacher Education BS

Major: Teacher Education
Degree Awarded: Bachelor of Science (BS)
Calendar Type: Quarter
Minimum Required Credits: 181.5-195.0
Co-op Options: One Co-op (Four years)
Classification of Instructional Programs (CIP) code: 13.1205
Standard Occupational Classification (SOC) code: 25-2031

About the Program

The Bachelor of Science in Teacher Education program uses University-wide resources to prepare fully qualified teachers at the secondary education levels in various content areas. Drexel's Bachelor of Science in Secondary Education has technology at its core and with a strong emphasis on STEM subject areas. Certification in secondary education prepares teachers for classrooms in grades 7-12. Candidates may work with their academic advisor to satisfy teacher certification requirements for multiple areas, if desired. Available certification areas include:

- Biology (p. 23)
- Chemistry (p. 25)
- Computer Science (p. 27)
- Earth & Space Science (p. 29)

- English (p. 31)
- General Science (p. 34)
- Mathematics (p. 36)
- Physics (p. 38)
- Social Studies (p. 40)

Candidates pursuing the appropriate majors in the College of Arts and Sciences may also complete the requirements for certification within their area of study through our DragonsTeach certification pathway. For more information, contact the program advisor for the School of Education at 215-895-6770.

Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

More information is available at the School of Education (<http://www.drexel.edu/soe/>) website.

Teacher Education: Biology

Major: Teacher Education

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Minimum Required Credits: 189.0

Co-op Options: One Co-op (Four years)

Classification of Instructional Programs (CIP) code: 13.1205

Standard Occupational Classification (SOC) code: 25-2031

About the Concentration

Certification is for grades 7-12

This certification option within the BS in Teacher Education (p. 22) emphasizes coursework in the biological sciences, including genetics, morphology and physiology, biochemistry, microbiology, and ecology. Candidates may work with their academic advisor to satisfy teacher certification requirements for multiple areas, if desired.

The program requires that candidates 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 EDEX, EDLT, EDPO, and EDUC courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program.

Candidates pursuing the appropriate majors in the College of Arts and Sciences may also complete the requirements for certification within their area of study through our DragonsTeach certification pathway. For more information, contact the program advisor for the School of Education at 215-895-6770.

Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

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

Degree Requirements

Degree Requirements

CIVC 101	Introduction to Civic Engagement	1.0
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COOP 101	Career Management and Professional Development *	1.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
HIST 289	History of Science: Enlightenment to Modernity	4.0
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	1.0

Science Requirements

BIO 131	Cells and Biomolecules	5.0
& BIO 134	and Cells and Biomolecules Lab	
BIO 132	Genetics and Evolution	5.0
& BIO 135	and Genetics and Evolution Lab	
BIO 133	Physiology and Ecology	5.0
& BIO 136	and Anatomy and Ecology Lab	
BIO 201	Human Physiology I	4.0
BIO 214	Principles of Cell Biology	4.0
BIO 215	Techniques in Cell Biology	3.0
BIO 218	Principles of Molecular Biology	4.0
BIO 219 [WI]	Techniques in Molecular Biology	3.0
BIO 228	Evolutionary Biology & Human Health	3.0
BIO 306	Biochemistry Laboratory	2.0
BIO 373	Developmental Biology	3.0
BIO 374	Developmental Biology Lab	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	Physiological and Population Ecology	3.0
PHYS 152	Introductory Physics I	4.0
PHYS 153	Introductory Physics II	4.0

Pedagogy Requirements

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDLT 326	Technology Applications for Learning	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 322	Evaluation of Instruction	3.0

EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
Student Teaching Experience		
EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0
Total Credits		189.0

*

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Students not participating in co-op will take one additional credit of free elective instead of COOP 101.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4 year, 1 co-op

First Year							
Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
BIO 131 & BIO 134	5.0	BIO 132 & BIO 135	5.0	BIO 133 & BIO 136	5.0	VACATION	
EDUC 101	3.0	CIVC 101	1.0	EDEX 142	3.0		
EDUC 106	1.0	EDUC 107	1.0	EDUC 108	1.0		
ENGL 101 or 111	3.0	ENGL 102 or 112	3.0	EDUC 123	3.0		
MATH 121	4.0	MATH 122	4.0	ENGL 103 or 113	3.0		
UNIV T101	1.0			MATH 123	4.0		
	17		14		19		0
Second Year							
Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
BIO 201	4.0	BIO 215	3.0	BIO 214	4.0	BIO 218	4.0
CHEM 101	3.5	CHEM 102	4.5	CHEM 241	4.0	CHEM 242	4.0
COOP 101*	1.0	EDUC 216	3.0	EDEX 368	3.0	EDLT 325	3.0

EDEX 344	3.0	PSY 101	3.0	EDUC 305	1.0	EDUC 322	3.0
EDUC 205	1.0			EDUC 308	3.0	PHYS 153	4.0
EDUC 365	3.0			PHYS 152	4.0		
	15.5		13.5		19		18

Third Year							
Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
COOP		COOP		BIO 219		3.0 BIO 228	3.0
EXPERIENCE		EXPERIENCE					
EDUC 315	3.0	CHEM 244	3.0	BIO 373		3.0 BIO 306	2.0
				BIO 374		2.0 EDPO 312	3.0
				EDLT 326		3.0 EDUC 324	3.0
				EDUC 316		3.0 ENVS 230	3.0
	3		3			14	14

Fourth Year				
Fall	Credits	Winter	Credits Spring	Credits
BIO 404	4.0	EDUC 410	9.0	CHEM 245 3.0
EDUC 409	9.0	ENVS 284	3.0	EDUC 405 1.0
			HIST 289	4.0
			PHIL 251	3.0
			PSY 320	3.0
	13		12	14

Total Credits 189

*

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

4 year, no co-op

First Year							
Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
BIO 131 & BIO 134	5.0	BIO 132 & BIO 135	5.0	BIO 133 & BIO 136	5.0	VACATION	
ENGL 101 or 111	3.0	CIVC 101	1.0	EDEX 142	3.0		
EDUC 101	3.0	EDUC 107	1.0	EDUC 108	1.0		
EDUC 106	1.0	ENGL 102 or 112	3.0	EDUC 123	3.0		
MATH 121	4.0	MATH 122	4.0	ENGL 103 or 113	3.0		
UNIV T101	1.0			MATH 123	4.0		
	17		14		19		0

Second Year							
Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
BIO 201	4.0	BIO 215	3.0	BIO 214	4.0	VACATION	
CHEM 101	3.5	CHEM 102	4.5	CHEM 241	4.0		
EDEX 344	3.0	EDUC 216	3.0	EDEX 368	3.0		
EDUC 205	1.0	EDUC 322	3.0	EDUC 305	1.0		
EDUC 365	3.0	PSY 101	3.0	EDUC 308	3.0		
				PHYS 152	4.0		
	14.5		16.5		19		0

Third Year							
Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
BIO 218	4.0	BIO 219	3.0	BIO 228	3.0	VACATION	
CHEM 242	4.0	BIO 373	3.0	BIO 306	2.0		
EDLT 325	3.0	BIO 374	2.0	EDPO 312	3.0		
EDUC 315	3.0	CHEM 244	3.0	EDUC 324	3.0		
PHYS 153	4.0	EDLT 326	3.0	ENVS 230	3.0		

EDUC 316		3.0	
18	17	14	0
Fourth Year			
Fall	Credits Winter	Credits Spring	Credits
BIO 404	4.0 EDUC 410	9.0 CHEM 245	3.0
EDUC 409	9.0 ENVS 284	3.0 EDUC 405	1.0
		HIST 289	4.0
		PHIL 251	3.0
		PSY 320	3.0
		Free elective*	1.0
13	12	15	
Total Credits 189			

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Students not participating in co-op will take one additional credit of free elective instead of COOP 101.

Program Level Outcomes

- Make ethical, sound decisions based on the Pennsylvania Professional Code of Conduct.
- Demonstrate leadership in the classroom, school community, and profession that is focused on positive and innovative change.
- Seek ongoing professional growth and development in the field to improve practice.
- Demonstrate a growth mindset and take responsibility for student learning and academic growth.
- Partner with parents in the education of their children.
- Use culturally responsive pedagogy to create equitable learning experiences for all students.
- Use critical self-reflection to understand one's own identity in the context of a classroom of diverse learners.
- Create an inclusive classroom environment with high expectations for all learners.
- Demonstrate the ability to self-reflect on his or her professional practice.
- Use data and classroom-based evidence to inform and improve professional practice.
- Demonstrate strong knowledge of science content, practices, and pedagogy in specific science related subject areas that meet PDE content requirements.
- Lessons, to demonstrate student growth and make appropriate modifications to the curriculum. Integrate tools of technology in teaching and learning in both the laboratory and classroom.
- Construct well-written, research-based, engaging lesson plans within the framework of the Next Generation Science Standards (NGSS).
- Create a safe, positive and productive learning environment that supports and facilitates learning for all students.
- Build a sense of community in a collaborative climate, based on developmentally appropriate pro- social skills, where students work collaboratively and have a shared sense of ownership.
- Demonstrate a thorough understanding of child and/or adolescent development and the learning sciences.
- Use differentiated instruction to meet the diverse learning needs of one's students.
- Use developmentally informed teaching practices.

Teacher Education: Chemistry

Major: Teacher Education

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Minimum Required Credits: 180.0

Co-op Options: One Co-op (Four years)

Classification of Instructional Programs (CIP) code: 13.1205

Standard Occupational Classification (SOC) code: 25-2031

About the Concentration

Certification is for grades 7-12

This certification option within the BS in Teacher Education (p. 22) emphasizes coursework in areas such as organic chemistry, physical chemistry, biochemistry, analytical chemistry, and inorganic chemistry. Candidates may work with their academic advisor to satisfy teacher certification requirements for multiple areas, if desired.

The program requires that candidates 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 EDEX, EDLT, EDPO, and EDUC courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program.

Candidates pursuing the appropriate majors in the College of Arts and Sciences may also complete the requirements for certification within their area of study through our DragonsTeach certification pathway. For more information, contact the program advisor for the School of Education at 215-895-6770.

Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

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

Degree Requirements

General Education Requirements

CIVC 101	Introduction to Civic Engagement	1.0
COOP 101	Career Management and Professional Development *	1.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
English elective course between 200-329		3.0
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
MATH 200	Multivariate Calculus	4.0
HIST 289	History of Science: Enlightenment to Modernity	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	1.0
Science Requirements		
BIO 107	Cells, Genetics & Physiology	3.0

BIO 108	Cells, Genetics and Physiology Laboratory	1.0
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
CHEM 103	General Chemistry III	4.5
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
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

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDLT 326	Technology Applications for Learning	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0

Student Teaching Experiences

EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching (Chemistry)	9.0

Total Credits **180.0**

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Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4 year, 1 co-op

First Year

Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
CHEM 101	3.5	CHEM 102	4.5	CHEM 103	4.5	VACATION	
EDUC 101	3.0	CIVC 101	1.0	EDEX 142	3.0		
EDUC 106	1.0	EDUC 107	1.0	EDUC 108	1.0		
ENGL 101 or 111	3.0	ENGL 102 or 112	3.0	EDUC 123	3.0		
MATH 121	4.0	MATH 122	4.0	ENGL 103 or 113	3.0		
PSY 101	3.0						
UNIV T101	1.0						

18.5 **13.5** **14.5** **0**

Second Year

Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
BIO 107	3.0	CHEM 231	2.0	CHEM 242	4.0	CHEM 243	3.0
BIO 108	1.0	CHEM 241	4.0	EDEX 368	3.0	EDLT 325	3.0
CHEM 230	4.0	EDUC 216	3.0	EDUC 305	1.0	EDUC 322	3.0
COOP 101*	1.0	MATH 200	4.0	EDUC 308	3.0	PHEV 145	4.0
EDEX 344	3.0			PHYS 101	4.0	PHYS 102	4.0
EDUC 205	1.0						
EDUC 365	3.0						

16 **13** **15** **17**

Third Year

Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
COOP EXPERIENCE		COOP EXPERIENCE		CHEM 245	3.0	CHEM 253	4.0
EDUC 315	3.0	CHEM 244	3.0	EDLT 326	3.0	EDPO 312	3.0
				EDUC 316	3.0	EDUC 324	3.0
				PHYS 201	4.0	PHIL 251	3.0

3 **3** **13** **13**

Fourth Year

Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
CHEM 357	2.5	CHEM 420	3.0	CHEM 421	3.0		
EDUC 409	9.0	EDUC 410	9.0	EDUC 405	1.0		
ENGL 200	3.0			ENVS 401	3.0		
- ENGL 329							
				HIST 289	4.0		
				PSY 320	3.0		

14.5 **12** **14**

Total Credits 180

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Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Program Level Outcomes

- Make ethical, sound decisions based on the Pennsylvania Professional Code of Conduct.
- Demonstrate leadership in the classroom, school community, and profession that is focused on positive and innovative change.
- Seek ongoing professional growth and development in the field to improve practice.
- Demonstrate a growth mindset and take responsibility for student learning and academic growth.
- Partner with parents in the education of their children.
- Use culturally responsive pedagogy to create equitable learning experiences for all students.
- Use critical self-reflection to understand one's own identity in the context of a classroom of diverse learners.
- Create an inclusive classroom environment with high expectations for all learners.
- Demonstrate the ability to self-reflect on his or her professional practice.
- Use data and classroom-based evidence to inform and improve professional practice.
- Demonstrate strong knowledge of science content, practices, and pedagogy in specific science related subject areas that meet PDE content requirements.
- Lessons, to demonstrate student growth and make appropriate modifications to the curriculum. Integrate tools of technology in teaching and learning in both the laboratory and classroom.
- Construct well-written, research-based, engaging lesson plans within the framework of the Next Generation Science Standards (NGSS).
- Create a safe, positive and productive learning environment that supports and facilitates learning for all students.
- Build a sense of community in a collaborative climate, based on developmentally appropriate pro- social skills, where students work collaboratively and have a shared sense of ownership.
- Demonstrate a thorough understanding of child and/or adolescent development and the learning sciences.
- Use differentiated instruction to meet the diverse learning needs of one's students.
- Use developmentally informed teaching practices.

Teacher Education: Computer Science

Major: Teacher Education
Degree Awarded: Bachelor of Science (BS)
Calendar Type: Quarter
Minimum Required Credits: 181.0
Co-op Options: One Co-op (Four years)
Classification of Instructional Programs (CIP) code: 13.1316

Standard Occupational Classification (SOC) code: 25-2031

About the Concentration

Certification is for grades 7-12

This certification option within the BS in Teacher Education (p. 22) is a well-rounded program collaborating with the College of Computing and Informatics to prepare Computer Science teachers in the state of Pennsylvania. Candidates may work with their academic advisor to satisfy teacher certification requirements for multiple areas, if desired.

The program requires that candidates 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 EDEX, EDLT, CS, EDPO, EDUC, and ESTM courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program.

Candidates pursuing the appropriate majors in the College of Arts and Sciences may also complete the requirements for certification within their area of study through our DragonsTeach certification pathway.

Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

For more information about the program, visit the School of Education (<https://nam10.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.drexel.edu%2Fsoe&data=04%7C01%7Cdh25%40drexel.edu%7C7724584055354fc5303b08d92f40ac3d%7C3664e6fa47bd45a696708c4f080f8ca6%7C0%7C0%7C637592777068701188%7CCTWFpbGZsb3d8eyJWljiMC4wLjAwMDAiLCJQljiV2luMzliLCJBTiI6I1haWw%7C1000&sdata=jvgl5KX1BeChKo%2BaLBjrasq6Yrd7IPxXQ1qpwk5FHG4%3D&reserved=0>) website.

Degree Requirements

General Education Requirements		
CIVC 101	Introduction to Civic Engagement	1.0
COOP 101	Career Management and Professional Development *	1.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
HIST 285	Technology in Historical Perspective	4.0
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
MATH 123	Calculus III	4.0
MATH 221	Discrete Mathematics	3.0
MATH 311	Probability and Statistics I	4.0
or MATH 410	Scientific Data Analysis I	
PHIL 311	Ethics and Information Technology	3.0
PSY 101	General Psychology I	3.0
PSY 320 [WI]	Educational Psychology	3.0
UNIV T101	The Drexel Experience	1.0
or CI 120	CCI Transfer Student Seminar	
Science Requirements		12.0-15.0
Choose one lab sequence		

BIO 131 & BIO 134	Cells and Biomolecules and Cells and Biomolecules Lab
BIO 132 & BIO 135	Genetics and Evolution and Genetics and Evolution Lab
BIO 133 & BIO 136	Physiology and Ecology and Anatomy and Ecology Lab
CHEM 101 & CHEM 102 & CHEM 103	General Chemistry I and General Chemistry II and General Chemistry III
PHYS 101 & PHYS 102 & PHYS 201	Fundamentals of Physics I and Fundamentals of Physics II and Fundamentals of Physics III

Computer Science Requirements

CS 150	Computer Science Principles	3.0
CS 171	Computer Programming I	3.0
or CS 175	Advanced Computer Programming I	
CS 172	Computer Programming II	3.0
CS 260	Data Structures	4.0
CS 265	Advanced Programming Tools and Techniques	3.0
CS 270	Mathematical Foundations of Computer Science	3.0
CS 375	Web Development	3.0

CS Electives 24.0

Recommended:

CS 277	Algorithms and Analysis
CS 281	Systems Architecture
SE 181	Introduction to Software Engineering and Development
SE 310	Software Design

Choose additional courses from CCI: CS, CT, INFO, SE 200 level and above

Computing & Informatics Requirements

CI 101	Computing and Informatics Design I	2.0
CI 102	Computing and Informatics Design II	2.0
CI 103	Computing and Informatics Design III	2.0

Pedagogy Requirements

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 326	Technology Applications for Learning	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0
ESTM 335	Teaching Secondary Computer Science	3.0
Free Elective		3.0

Total Credits 181.0-184.0

*

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4 year, 1 co-op

First Year

Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
CI 101	2.0	CI 102	2.0	CI 103	2.0	VACATION	
CS 150	3.0	CIVC 101	1.0	CS 172	3.0		
EDUC 101	3.0	CS 171	3.0	EDEX 142	3.0		
EDUC 106	1.0	EDUC 107	1.0	EDUC 108	1.0		
ENGL 101	3.0	ENGL 102	3.0	EDUC 123	3.0		
or 111		or 112					
MATH 121	4.0	MATH 122	4.0	ENGL 103	3.0		
				or 113			
UNIV T101	1.0			MATH 123	4.0		
	17		14		19		0

Second Year

Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
COOP 101*	1.0	CS 260	4.0	CS 375	3.0	EDLT 326	3.0
CS 265	3.0	ECON 201	4.0	EDEX 368	3.0	EDUC 322	3.0
CS 270	3.0	EDUC 216	3.0	EDUC 305	1.0	PSY 101	3.0
EDEX 344	3.0	MATH 221	3.0	EDUC 308	3.0	CCI Electives	6.0
EDUC 205	1.0			PHYS 101	4.0		
EDUC 365	3.0			PHIL 311	3.0		
	14		14		17		15

Third Year

Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
COOP EXPERIENCE		COOP EXPERIENCE		EDUC 316	3.0	EDPO 312	3.0
ESTM 335	3.0			HIST 285	4.0	EDUC 324	3.0

		MATH 311	4.0	PHYS 102	4.0
		PSY 320	3.0	CCI	6.0
				Electives	
	3	0	14		16
Fourth Year					
Fall	Credits	Winter	Credits	Spring	Credits
EDUC 409	9.0	EDUC 410	9.0	EDUC 405	1.0
Free	3.0	PHYS 201	4.0	CCI	12.0
Elective				Electives	
	12	13	13		
Total Credits 181					

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Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Program Level Outcomes

- Make ethical, sound decisions based on the Pennsylvania Professional Code of Conduct.
- Demonstrate leadership in the classroom, school community, and profession that is focused on positive and innovative change.
- Seek ongoing professional growth and development in the field to improve practice.
- Demonstrate a growth mindset and take responsibility for student learning and academic growth.
- Partner with parents in the education of their children.
- Use culturally responsive pedagogy to create equitable learning experiences for all students.
- Use critical self-reflection to understand one's own identity in the context of a classroom of diverse learners.
- Create an inclusive classroom environment with high expectations for all learners.
- Demonstrate the ability to self-reflect on his or her professional practice.
- Use data and classroom-based evidence to inform and improve professional practice.
- Demonstrate strong knowledge of science content, practices, and pedagogy in specific science related subject areas that meet PDE content requirements.
- Lessons, to demonstrate student growth and make appropriate modifications to the curriculum. Integrate tools of technology in teaching and learning in both the laboratory and classroom.
- Construct well-written, research-based, engaging lesson plans within the framework of the Next Generation Science Standards (NGSS).
- Create a safe, positive and productive learning environment that supports and facilitates learning for all students.
- Build a sense of community in a collaborative climate, based on developmentally appropriate pro- social skills, where students work collaboratively and have a shared sense of ownership.
- Demonstrate a thorough understanding of child and/or adolescent development and the learning sciences.

- Use differentiated instruction to meet the diverse learning needs of one's students.
- Use developmentally informed teaching practices.

Teacher Education: Earth and Space Science

Major: Teacher Education

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Minimum Required Credits: 181.0

Co-op Options: One Co-op (Four years); No Co-op (Four years)

Classification of Instructional Programs (CIP) code: 13.1205

Standard Occupational Classification (SOC) code: 25-2031

About the Concentration

Certification is for grades 7-12

This option within the BS in Teacher Education (p. 22) emphasizes interdisciplinary study involving coursework in biology, chemistry, geology, physics, and atmospheric science. Candidates may work with their academic advisor to satisfy teacher certification requirements for multiple areas, if desired.

The program requires that candidates 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 EDEX, EDLT, EDPO, and EDUC courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program.

Candidates pursuing the appropriate majors in the College of Arts and Sciences may also complete the requirements for certification within their area of study through our DragonsTeach certification pathway. For more information, contact the program advisor for the School of Education at 215-895-6770.

Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

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

Degree Requirements

General Education Requirements

CIVC 101	Introduction to Civic Engagement	1.0
COOP 101	Career Management and Professional Development *	1.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
English elective course between 200-329		3.0
HIST 289	History of Science: Enlightenment to Modernity	4.0
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	1.0
Science Requirements		
BIO 131 & BIO 134	Cells and Biomolecules and Cells and Biomolecules Lab	5.0
BIO 132 & BIO 135	Genetics and Evolution and Genetics and Evolution Lab	5.0
BIO 133 & BIO 136	Physiology and Ecology and Anatomy and Ecology Lab	5.0
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	3.0
ENVS 284	Physiological and Population Ecology	3.0
ENVS 286	Community and Ecosystem Ecology	3.0
GEO 101	Physical Geology	4.0
GEO 102	History of the Earth	4.0
GEO 207	Introduction to Oceanography	3.0
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		
EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDLT 326	Technology Applications for Learning	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
Student Teaching Experiences		
EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0
Free Elective		3.0
Total Credits		181.0

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Students not participating in co-op will take 1.0 additional credit of free elective instead of COOP 101.

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4 year, 1 co-op

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
BIO 131 & BIO 134	5.0 BIO 132 & BIO 135	5.0 BIO 133 & BIO 136	5.0 VACATION	
ENGL 101 or 111	3.0 CIVC 101	1.0 EDEX 142	3.0	
EDUC 101	3.0 EDUC 107	1.0 EDUC 108	1.0	
EDUC 106	1.0 ENGL 102	3.0 EDUC 123	3.0	
MATH 121	4.0 MATH 122	4.0 ENGL 103 or 113	3.0	
UNIV T101	1.0	MATH 123	4.0	
	17	14	19	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
CHEM 101	3.5 EDUC 216	3.0 EDEX 368	3.0 ECON 201	4.0
COOP 101*	1.0 ENVS 230	3.0 EDUC 305	1.0 EDLT 325	3.0
EDEX 344	3.0 ENVS 286	3.0 EDUC 308	3.0 EDUC 322	3.0
EDUC 205	1.0 GEO 102	4.0 GEO 207	3.0 PSY 101	3.0
EDUC 365	3.0	HIST 289	4.0 ENGL 200 - ENGL 329	3.0
ENVS 284	3.0			
Free Elective	3.0			
	17.5	13	14	16

Third Year

Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDLT 326	3.0 EDPO 312	3.0
EDUC 315	3.0	EDUC 316	3.0 EDUC 324	3.0
		GEO 101	4.0 ENVS 260	3.0
		PHYS 131	3.0 PHIL 251	3.0
	3	0	13	12

Fourth Year

Fall	Credits Winter	Credits Spring	Credits
EDUC 409	9.0 EDUC 410	9.0 CHEM 102	4.5
PHYS 101	4.0 PHYS 102	4.0 EDUC 405	1.0
		PHEV 145	4.0
		PHEV 146	4.0
		PSY 320	3.0
	13	13	16.5

Total Credits 181

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Students not participating in co-op will take one additional credit of Free Elective instead of COOP 101.

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

4 year, no co-op**First Year**

Fall	Credits Winter	Credits Spring	Credits Summer	Credits
BIO 131 & BIO 134	5.0 BIO 132 & BIO 135	5.0 BIO 133 & BIO 136	5.0 VACATION	
EDUC 101	3.0 CIVC 101	1.0 EDEX 142	3.0	
EDUC 106	1.0 EDUC 107	1.0 EDUC 108	1.0	
ENGL 101 or 111	3.0 ENGL 102	3.0 EDUC 123	3.0	
MATH 121	4.0 MATH 122	4.0 ENGL 103 or 113	3.0	
UNIV T101	1.0	MATH 123	4.0	
	17	14	19	0

Second Year

Fall	Credits Winter	Credits Spring	Credits Summer	Credits
CHEM 101	3.5 EDUC 216	3.0 EDEX 368	3.0 VACATION	
EDEX 344	3.0 EDUC 322	3.0 EDUC 305	1.0	
EDUC 205	1.0 ENVS 230	3.0 EDUC 308	3.0	
EDUC 365	3.0 ENVS 286	3.0 GEO 207	3.0	
ENVS 284	3.0 GEO 102	4.0 HIST 289	4.0	
Free Elective	3.0			
	16.5	16	14	0

Third Year

Fall	Credits Winter	Credits Spring	Credits Summer	Credits
ECON 201	4.0 EDLT 326	3.0 EDPO 312	3.0 VACATION	
EDLT 325	3.0 EDUC 316	3.0 EDUC 324	3.0	
EDUC 315	3.0 GEO 101	4.0 ENVS 260	3.0	
PSY 101	3.0 PHYS 131	3.0 PHIL 251	3.0	
ENGL 200 - ENGL 329	3.0			
	16	13	12	0

Fourth Year

Fall	Credits Winter	Credits Spring	Credits
EDUC 409	9.0 EDUC 410	9.0 CHEM 102	4.5
PHYS 101	4.0 PHYS 102	4.0 EDUC 405	1.0
		PHEV 145	4.0
		PHEV 146	4.0
		PSY 320	3.0
		Free elective *	1.0
	13	13	17.5

Total Credits 181

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Students not participating in co-op will not take COOP 101; 1.0 credit of free elective will be added in place of COOP 101.

Program Level Outcomes

- Make ethical, sound decisions based on Pennsylvania Professional Code of Conduct.
- Demonstrate leadership in the classroom, school community, and profession that is focused on positive and innovative change.
- Seek ongoing professional growth and development in the field to improve practice.
- Demonstrate a growth mindset, and take responsibility for student learning and academic growth.
- Partner with parents in the education of their children.
- Use culturally responsive pedagogy to create equitable learning experiences for all students.
- Use critical self-reflection to understand one's own identity in the context of a classroom of diverse learners.
- Create an inclusive classroom environment with high expectations for all learners.
- Demonstrate the ability to self-reflect on his or her professional practice.
- Use data and classroom based evidence to inform and improve professional practice.
- Demonstrate strong knowledge of science content, practices, and pedagogy in specific science related subject areas that meet PDE content requirements.
- Lessons, to demonstrate student growth and make appropriate modifications to the curriculum. Integrate tools of technology in teaching and learning in both the laboratory and classroom.
- Construct well-written, research-based, engaging lesson plans within the framework of the Next Generation Science Standards (NGSS).
- Create a safe, positive and productive learning environment that supports and facilitates learning for all students.
- Build a sense of community in a collaborative climate, based on developmentally appropriate pro- social skills, where students work collaboratively and have a shared sense of ownership.
- Demonstrate a thorough understanding of child and/or adolescent development and the learning sciences.
- Use differentiated instruction to meet the diverse learning needs of one's students.
- Use developmentally informed teaching practices.

Teacher Education: English*Major: Teacher Education*

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Minimum Required Credits: 182.0

Co-op Options: One Co-op (Four years)

Classification of Instructional Programs (CIP) code: 13.1305

Standard Occupational Classification (SOC) code: 25-2031

About the Concentration

Certification is for grades 7-12

This certification option within the BS in Teacher Education (p. 22) emphasizes coursework in areas such as literature and writing, young adult fiction, and techniques for effectively teaching reading and writing skills. Candidates may work with their academic advisor to satisfy teacher certification requirements for multiple areas, if desired.

The program requires that candidates 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 EDEX, EDLT, EDPO, and EDUC courses throughout their time in the program. These requirements must be satisfied in order for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program.

Candidates pursuing the appropriate majors in the College of Arts and Sciences may also complete the requirements for certification within their area of study through our DragonsTeach certification pathway. For more information, contact the program advisor for the School of Education at 215-895-6770.

Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

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

Degree Requirements

General Education Requirements

ARTH 101	History of Art I	3.0
CIVC 101	Introduction to Civic Engagement	1.0
COOP 101	Career Management and Professional Development *	1.0
COM 230	Techniques of Speaking	3.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
ENVS 260	Environmental Science and Society	3.0
Select one American History course:		4.0
HIST 201	United States History to 1815	
HIST 202	United States History, 1815-1900	
HIST 203	United States History since 1900	
INFO 101	Introduction to Computing and Security Technology	3.0
LING 101	Introduction to Linguistics	3.0
MATH 101	Introduction to Analysis I	4.0
or MATH 171	Introduction to Analysis A	
MATH 102	Introduction to Analysis II	4.0
or MATH 172	Introduction to Analysis B	

MATH 107	Probability and Statistics for Liberal Arts	3.0
or MATH 173	Introduction to Analysis C	
MUSC 130	Introduction to Music	3.0
NFS 100	Nutrition, Foods, and Health	2.0
NFS 101	Introduction to Nutrition & Food	1.0
PHYS 131	Survey of the Universe	3.0
PSY 101	General Psychology I	3.0
PSY 320 [WI]	Educational Psychology	3.0
SOC 335	Sociology of Education	3.0
WRIT 225 [WI]	Creative Writing	3.0
WRIT 301 [WI]	Writing Poetry	3.0
UNIV T101	The Drexel Experience	1.0

Science Sequence

Select one of the following:		6.0-8.0
CHEM 111	General Chemistry I	
CHEM 112	General Chemistry II	
or		
PHYS 170	Electricity and Motion	
PHYS 175	Light and Sound	

English Requirements (option to 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	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
ENGL 335	Mythology	3.0
ENGL 355 [WI]	Women and Literature	3.0

Pedagogy Requirements

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 358	English Teaching Methods	3.0
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0

Student Teaching Experiences

EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0
Free Elective		7.0

Total Credits	182.0-184.0
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Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4 year, 1 co-op

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
CHEM 111 or PHYS 170	3.0-4.0 ARTH 101	3.0 EDEX 142	3.0 VACATION	
EDUC 101	3.0 CHEM 112 or PHYS 175	3.0-4.0 EDUC 108	1.0	
EDUC 106	1.0 CIVC 101	1.0 EDUC 123	3.0	
ENGL 101 or 111	3.0 EDUC 107	1.0 ENGL 103 or 113	3.0	
PSY 101	3.0 ENGL 102	3.0 MATH 107 or 173	3.0	
MATH 101 or 171	4.0 MATH 102 or 172	4.0 PHYS 131	3.0	
UNIV T101	1.0			
	18-19	15-16	16	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP 101	1.0 EDUC 216	3.0 COM 230	3.0 ECON 201	4.0
EDEX 344	3.0 ENGL 201	3.0 EDEX 368	3.0 EDLT 325	3.0
EDUC 205	1.0 INFO 101	3.0 EDUC 305	1.0 EDUC 322	3.0
EDUC 365	3.0 LING 101	3.0 EDUC 308	3.0 HIST 201, 202, or 203	4.0
ENGL 200	3.0 NFS 100 & NFS 101	3.0 ENVS 260	3.0	
Free Elective	3.0 WRIT 301	3.0		

WRIT 225	3.0			
	17	18	13	14
Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDUC 316	3.0 EDPO 312	3.0
EDUC 358	3.0 ENGL 211	3.0 ENGL 304	3.0 EDUC 324	3.0
		PSY 320	3.0 ENGL 212	3.0
		SOC 335	3.0 ENGL 335	3.0
	3	3	12	12
Fourth Year				
Fall	Credits Winter	Credits Spring	Credits	
EDUC 409	9.0 EDUC 410	9.0 EDUC 405	1.0	
ENGL 204	3.0 ENGL 335	3.0 ENGL 205	3.0	
		ENGL 206	3.0	
		ENGL 325	3.0	
		MUSC 130	3.0	
		Free Elective	4.0	
	12	12	17	
Total Credits 182-184				

Program Level Outcomes

- Make ethical, sound decisions based on the Pennsylvania Professional Code of Conduct.
- Demonstrate leadership in the classroom, school community, and profession that is focused on positive and innovative change.
- Seek ongoing professional growth and development in the field to improve practice.
- Demonstrate a growth mindset and take responsibility for student learning and academic growth.
- Partner with parents in the education of their children.
- Use culturally responsive pedagogy to create equitable learning experiences for all students.
- Use critical self-reflection to understand one's own identity in the context of a classroom of diverse learners.
- Create an inclusive classroom environment with high expectations for all learners.
- Demonstrate the ability to self-reflect on his or her professional practice.
- Use data and classroom-based evidence to inform and improve professional practice.
- Demonstrate strong knowledge of science content, practices, and pedagogy in specific science related subject areas that meet PDE content requirements.
- Lessons, to demonstrate student growth and make appropriate modifications to the curriculum. Integrate tools of technology in teaching and learning in both the laboratory and classroom.
- Construct well-written, research-based, engaging lesson plans within the framework of the Next Generation Science Standards (NGSS).
- Create a safe, positive and productive learning environment that supports and facilitates learning for all students.
- Build a sense of community in a collaborative climate, based on developmentally appropriate pro- social skills, where students work collaboratively and have a shared sense of ownership.
- Demonstrate a thorough understanding of child and/or adolescent development and the learning sciences.

- Use differentiated instruction to meet the diverse learning needs of one's students.
- Use developmentally informed teaching practices.

Teacher Education: General Science

Major: Teacher Education

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Minimum Required Credits: 181.5

Co-op Options: One Co-op (Four years)

Classification of Instructional Programs (CIP) code: 13.1205

Standard Occupational Classification (SOC) code: 25-2031

About the Concentration

Certification is for grades 7-12

This certification option within the BS in Teacher Education (p. 22) is a well-rounded program incorporating biology, chemistry, mathematics, and physics. Candidates may work with their academic advisor to satisfy teacher certification requirements for multiple areas, if desired.

The program requires that candidates 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 EDEX, EDLT, EDPO, and EDUC courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program.

Candidates pursuing the appropriate majors in the College of Arts and Sciences may also complete the requirements for certification within their area of study through our DragonsTeach certification pathway. For more information, contact the program advisor for the School of Education at 215-895-6770.

Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

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

Degree Requirements

General Education Requirements

CIVC 101	Introduction to Civic Engagement	1.0
COOP 101	Career Management and Professional Development *	1.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
English (ENGL) course between 200-329		3.0
HIST 283	Technology and Identity	4.0
HIST 285	Technology in Historical Perspective	4.0
HIST 289	History of Science: Enlightenment to Modernity	4.0
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	1.0
Free Electives		6.0

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
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
CHEM 103	General Chemistry III	4.5
ENVS 284	Physiological and Population Ecology	3.0
ENVS 286	Community and Ecosystem Ecology	3.0
GEO 101	Physical Geology	4.0
GEO 102	History of the Earth	4.0
GEO 207	Introduction to Oceanography	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

Pedagogy Requirements

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDLT 326	Technology Applications for Learning	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0

Student Teaching Experiences

EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0
Free Electives		6.0

Total Credits **181.5**

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Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4 year, 1 co-op

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
BIO 107	3.0 BIO 109	3.0 EDEX 142	3.0 VACATION	
BIO 108	1.0 BIO 110	1.0 EDUC 108	1.0	
EDUC 101	3.0 CIVC 101	1.0 EDUC 123	3.0	
EDUC 106	1.0 EDUC 107	1.0 ENGL 103 or 113	3.0	
ENGL 101 or 111	3.0 ENGL 102 or 112	3.0 GEO 101	4.0	
MATH 121	4.0 Free Elective	3.0 MATH 123	4.0	
UNIV T101	1.0 MATH 122	4.0		
	16	16	18	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
CHEM 101	3.5 CHEM 102	4.5 CHEM 103	4.5 EDLT 325	3.0
COOP 101*	1.0 EDUC 216	3.0 EDEX 368	3.0 EDUC 322	3.0
EDEX 344	3.0 ENVS 286**	3.0 EDUC 305	1.0 PHIL 251	3.0
EDUC 205	1.0 GEO 102	4.0 EDUC 308	3.0 PHYS 131	3.0
EDUC 365	3.0 HIST 283	4.0 PSY 101	3.0	
ENVS 284	3.0			
Free Elective	3.0			
	17.5	18.5	14.5	12
Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDLT 326	3.0 EDPO 312	3.0
EDUC 315	3.0	EDUC 316	3.0 EDUC 324	3.0
		PHYS 101	4.0 HIST 285	4.0
		PSY 320	3.0 PHYS 102	4.0
	3	0	13	14
Fourth Year				
Fall	Credits Winter	Credits Spring	Credits	
EDUC 409	9.0 EDUC 410	9.0 EDUC 405	1.0	

Free elective	3.0 Free elective	3.0 GEO 207	3.0
		HIST 289	4.0
		PHEV 145	4.0
		ENGL 200	3.0
		- ENGL 329	
	12	12	15

Total Credits 181.5

*

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

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Students must take ENVS 286 no later than Third Year, Winter Term. Course is offered every other year.

Program Level Outcomes

- Make ethical, sound decisions based on Pennsylvania Professional Code of Conduct.
- Demonstrate leadership in the classroom, school community, and profession that is focused on positive and innovative change.
- Seek ongoing professional growth and development in the field to improve practice.
- Demonstrate a growth mindset, and take responsibility for student learning and academic growth.
- Partner with parents in the education of their children.
- Use culturally responsive pedagogy to create equitable learning experiences for all students.
- Use critical self-reflection to understand one's own identity in the context of a classroom of diverse learners.
- Create an inclusive classroom environment with high expectations for all learners.
- Demonstrate the ability to self-reflect on his or her professional practice.
- Use data and classroom based evidence to inform and improve professional practice.
- Demonstrate strong knowledge of science content, practices, and pedagogy in specific science related subject areas that meet PDE content requirements.
- Lessons, to demonstrate student growth and make appropriate modifications to the curriculum. Integrate tools of technology in teaching and learning in both the laboratory and classroom.
- Construct well-written, research-based, engaging lesson plans within the framework of the Next Generation Science Standards (NGSS).
- Create a safe, positive and productive learning environment that supports and facilitates learning for all students.
- Build a sense of community in a collaborative climate, based on developmentally appropriate pro- social skills, where students work collaboratively and have a shared sense of ownership.
- Demonstrate a thorough understanding of child and/or adolescent development and the learning sciences.

- Use differentiated instruction to meet the diverse learning needs of one's students.
- Use developmentally informed teaching practices.

Teacher Education: Mathematics

Major: Teacher Education

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Minimum Required Credits: 182.0

Co-op Options: One Co-op (Four years)

Classification of Instructional Programs (CIP) code: 13.1205

Standard Occupational Classification (SOC) code: 25-2031

About the Concentration

Certification is for grades 7-12

This certification option within the BS in Teacher Education (p. 22) emphasizes coursework in areas of mathematics such as calculus, linear algebra, differential equations, probability and statistics, techniques of mathematical proof, and discrete mathematics. Candidates may work with their academic advisor to satisfy teacher certification requirements for multiple areas, if desired.

The program requires that candidates 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 EDEX, EDLT, EDPO, EDUC, and MTED courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program.

Candidates pursuing the appropriate majors in the College of Arts and Sciences may also complete the requirements for certification within their area of study through our DragonsTeach certification pathway. For more information, contact the program advisor for the School of Education at 215-895-6770.

Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

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

Degree Requirements

General Education Requirements

CIVC 101	Introduction to Civic Engagement	1.0
COOP 101	Career Management and Professional Development *	1.0
CS 150	Computer Science Principles	3.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
English elective course between 200-329		3.0
HIST 289	History of Science: Enlightenment to Modernity	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	1.0
Mathematics Requirements		
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 [WI]	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
BIO 110	Biological Diversity, Ecology and Evolution Laboratory	1.0
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
ENVS 260	Environmental Science and Society	3.0
PHYS 101	Fundamentals of Physics I	4.0
PHYS 102	Fundamentals of Physics II	4.0
Pedagogy Requirements		
EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDLT 326	Technology Applications for Learning	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
MTED 419	Teaching Secondary Mathematics	3.0
MTED 428	Cultural and Historical Significance of Mathematics	3.0
Free Electives		3.0
Student Teaching Experience		
EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0
Total Credits		182.0

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Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4 year, 1 co-op

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 101	3.0 CIVC 101	1.0 BIO 107	3.0 VACATION	
EDUC 106	1.0 EDUC 107	1.0 BIO 108	1.0	
ENGL 101 or 111	3.0 ENGL 102 or 112	3.0 EDEX 142	3.0	
MATH 121	4.0 Free Elective	3.0 EDUC 108	1.0	
PSY 101	3.0 MATH 122	4.0 EDUC 123	3.0	
UNIV T101	1.0 PHIL 251	3.0 ENGL 103 or 113	3.0	
		MATH 123	4.0	
	15	15	18	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP 101*	1.0 CS 150	3.0 CHEM 101	3.5 BIO 109	3.0
EDEX 344	3.0 ECON 201	4.0 EDEX 368	3.0 BIO 110	1.0
EDUC 205	1.0 EDUC 216	3.0 EDUC 305	1.0 CHEM 102	4.5
EDUC 365	3.0 MATH 201	4.0 EDUC 308	3.0 EDLT 325	3.0
HIST 289	4.0	MATH 205	3.0 EDUC 322	3.0
MATH 200	4.0	MATH 210	4.0 MTED 428	3.0
	16	14	17.5	17.5
Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDLT 326	3.0 EDPO 312	3.0
MTED 419	3.0	EDUC 316	3.0 EDUC 324	3.0

	MATH 220	3.0 MATH 221	3.0
	PHYS 101	4.0 PHYS 102	4.0
	3	0	13
			13
Fourth Year			
Fall	Credits Winter	Credits Spring	Credits
EDUC 409	9.0 EDUC 410	9.0 EDUC 405	1.0
MATH 331	4.0 MATH 311	4.0 ENVS 260	3.0
		MATH 312	4.0
		PSY 320	3.0
		ENGL 200	3.0
		- ENGL 395	
	13	13	14
Total Credits 182			

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Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Program Level Outcomes

- Make ethical, sound decisions based on Pennsylvania Professional Code of Conduct.
- Demonstrate leadership in the classroom, school community, and profession that is focused on positive and innovative change.
- Seek ongoing professional growth and development in the field to improve practice.
- Demonstrate a growth mindset, and take responsibility for student learning and academic growth.
- Use culturally responsive pedagogy to create equitable learning experiences for all students.
- Use critical self-reflection to understand one's own identity in the context of a classroom of diverse learners.
- Create an inclusive classroom environment with high expectations for all learners.
- Demonstrate the ability to self-reflect on their professional practice.
- Use data and classroom based evidence to inform and improve professional practice.
- Demonstrate strong knowledge of mathematics content, practices, and pedagogy, meeting PDE requirements.
- Deliver effective instruction using high leverage teaching practices with emphasis on problem-solving, multiple representations and multiple solution paths.
- Use appropriate means of ongoing assessment, and utilize data, including student-produced artifacts, to demonstrate student growth and make appropriate modifications to the curriculum.
- Integrate tools of technology in teaching and learning for individual and group work.
- Construct well-written, research-based, engaging lesson plans that connect to the relevant content and practice standards and include opportunities to engage students at multiple levels.
- Create a safe, positive and productive learning environment that supports and facilitates learning for all students.

- Build a sense of community in a collaborative climate, based on developmentally appropriate pro-social skills, where students work collaboratively and have a shared sense of ownership.
- Demonstrate a thorough understanding of child and/or adolescent development and the learning sciences.
- Use differentiated instruction to meet the diverse learning needs of one's students.
- Use developmentally informed teaching practices
- Successful completion of comprehensive exam

Teacher Education: Physics

Major: Teacher Education

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Minimum Required Credits: 180.0

Co-op Options: One Co-op (Four years)

Classification of Instructional Programs (CIP) code: 13.1205

Standard Occupational Classification (SOC) code: 25-2031

About the Concentration

Certification is for grades 7-12

This certification option within the BS in Teacher Education (p. 22) emphasizes coursework in physics and atmospheric science, including topics such as classical mechanics, electromagnetic fields, quantum mechanics, physics of high fidelity, and survey of the universe. Candidates may work with their academic advisor to satisfy teacher certification requirements for multiple areas, if desired.

The program requires that candidates 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 EDEX, EDLT, EDPO, and EDUC courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program.

Candidates pursuing the appropriate majors in the College of Arts and Sciences may also complete the requirements for certification within their area of study through our DragonsTeach certification pathway. For more information, contact the program advisor for the School of Education at 215-895-6770.

Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

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

Degree Requirements

General Education Requirements

CIVC 101	Introduction to Civic Engagement	1.0
COOP 101	Career Management and Professional Development *	1.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0

or ENGL 113	English Composition III	
English elective course between 200-329		3.0
HIST 289	History of Science: Enlightenment to Modernity	4.0
MATH 121	Calculus I	4.0
MATH 122	Calculus II	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	1.0
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
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
ENVS 260	Environmental Science and Society	3.0
PHEV 145	Weather I: Climate and Global Change	4.0
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 217	Thermodynamics	4.0
PHYS 311	Classical Mechanics I	4.0
PHYS 321	Electromagnetic Fields I	4.0
PHYS 326	Quantum Mechanics I	4.0
Pedagogy Requirements		
EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDLT 326	Technology Applications for Learning	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
Free Electives		6.0
Student Teaching Experiences		
EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0
Total Credits		180.0

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Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4 year, 1 co-op

First Year

Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 101	3.0 CIVC 101	1.0 EDEX 142	3.0 VACATION	
EDUC 106	1.0 EDUC 107	1.0 EDUC 108	1.0	
ENGL 101 or 111	3.0 ENGL 102 or 112	3.0 EDUC 123	3.0	
MATH 121	4.0 MATH 122	4.0 ENGL 103 or 113	3.0	
PHYS 113	5.0 PHYS 114	5.0 MATH 200	4.0	
UNIV T101	1.0	PHYS 115	5.0	
	17	14	19	0

Second Year

Fall	Credits Winter	Credits Spring	Credits Summer	Credits
CHEM 101	3.5 CHEM 102	4.5 BIO 107	3.0 BIO 109	3.0
COOP 101*	1.0 EDUC 216	3.0 BIO 108	1.0 BIO 110	1.0
EDEX 344	3.0 HIST 289	4.0 EDEX 368	3.0 EDLT 325	3.0
EDUC 205	1.0 PHYS 311	4.0 EDUC 305	1.0 EDUC 315	3.0
EDUC 365	3.0	EDUC 308	3.0 EDUC 322	3.0
PHYS 217	4.0	PSY 101	3.0 ENVS 260	3.0
	15.5	15.5	14	16

Third Year

Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDLT 326	3.0 EDPO 312	3.0
PHYS 321 or 326	4.0	EDUC 316	3.0 EDUC 324	3.0

MATH 201 4.0 ENGL 200
- ENGL 329

	PSY 320	3.0 MATH 210	4.0
4	0	13	13
Fourth Year			
Fall	Credits Winter	Credits Spring	Credits
EDUC 409	9.0 EDUC 410	9.0 EDUC 405	1.0
PHYS 321 or 326	4.0 Free Elective	3.0 PHEV 145	4.0
		PHIL 251	3.0
		PHYS 131	3.0
		Free Elective	3.0
	13	12	14

Total Credits 180

★

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Program Level Outcomes

- Make ethical, sound decisions based on Pennsylvania Professional Code of Conduct.
- Demonstrate leadership in the classroom, school community, and profession that is focused on positive and innovative change.
- Seek ongoing professional growth and development in the field to improve practice.
- Demonstrate a growth mindset, and take responsibility for student learning and academic growth.
- Partner with parents in the education of their children.
- Use culturally responsive pedagogy to create equitable learning experiences for all students.
- Use critical self-reflection to understand one's own identity in the context of a classroom of diverse learners.
- Create an inclusive classroom environment with high expectations for all learners.
- Demonstrate the ability to self-reflect on his or her professional practice.
- Use data and classroom based evidence to inform and improve professional practice.
- Demonstrate strong knowledge of science content, practices, and pedagogy in specific science related subject areas that meet PDE content requirements.
- Lessons, to demonstrate student growth and make appropriate modifications to the curriculum. Integrate tools of technology in teaching and learning in both the laboratory and classroom.
- Construct well-written, research-based, engaging lesson plans within the framework of the Next Generation Science Standards (NGSS).
- Create a safe, positive and productive learning environment that supports and facilitates learning for all students.
- Build a sense of community in a collaborative climate, based on developmentally appropriate pro- social skills, where students work collaboratively and have a shared sense of ownership.

- Demonstrate a thorough understanding of child and/or adolescent development and the learning sciences.
- Use differentiated instruction to meet the diverse learning needs of one's students.
- Use developmentally informed teaching practices.

Teacher Education: Social Studies

Major: Teacher Education

Degree Awarded: Bachelor of Science (BS)

Calendar Type: Quarter

Minimum Required Credits: 180.0

Co-op Options: One Co-op (Four years)

Classification of Instructional Programs (CIP) code: 13.1205

Standard Occupational Classification (SOC) code: 25-2031

About the Concentration

Certification is for grades 7-12

This certification option within the BS in Teacher Education (p. 22) is designed to prepare candidates to teach social studies using appropriate pedagogy strategies. Topics include history, geography, civics, economics, and psychology. Candidates may work with their academic advisor to satisfy teacher certification requirements for multiple areas, if desired.

The program requires that candidates 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 EDEX, EDLT, EDPO, and EDUC courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program.

Candidates pursuing the appropriate majors in the College of Arts and Sciences may also complete the requirements for certification within their area of study through our DragonsTeach certification pathway. For more information, contact the program advisor for the School of Education at 215-895-6770.

Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

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

Degree Requirements

General Education Requirements

ANTH 101	Introduction to Cultural Diversity	3.0
CIVC 101	Introduction to Civic Engagement	1.0
COOP 101	Career Management and Professional Development *	1.0
ECON 201	Principles of Microeconomics	4.0
ECON 202	Principles of Macroeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
ENGL 205 [WI]	American Literature I	3.0

MATH 101	Introduction to Analysis I	4.0
or MATH 171	Introduction to Analysis A	
MATH 102	Introduction to Analysis II	4.0
or MATH 172	Introduction to Analysis B	
MATH 107	Probability and Statistics for Liberal Arts	3.0
or MATH 173	Introduction to Analysis C	
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, Ethnicity and Social Inequality	4.0
SOC 335	Sociology of Education	3.0
UNIV T101	The Drexel Experience	1.0

Social Studies Content Requirements:

AFAS 201	Cross Currents in Africana Studies	3.0-4.0
or GST 100	Introduction to Cultural Diversity	
or GST 101	Becoming Global: Language and Cultural Context	

Select two: 8.0

HIST 161	Themes in World Civilization I	
HIST 162	Themes in World Civilization II	
HIST 163	Themes in World Civilization III	
HIST 201	United States History to 1815	4.0
HIST 202	United States History, 1815-1900	4.0
HIST 203	United States History since 1900	4.0
HIST 212	Themes in African-American History	4.0
HIST 214	United States Civil Rights Movement	4.0
HIST 275	History of Pennsylvania	3.0
PSCI 110	American Government	4.0
PSCI 140	Comparative Politics I	4.0
PSCI 150	International Politics	4.0
PSCI 220	Constitutional Law I	4.0
PSCI 240	Comparative Politics II	4.0
PSCI 375	Politics of Immigration	4.0

Pedagogy Requirements

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0

EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 356	Secondary Social Studies Methods	3.0
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0

Student Teaching Experience

EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0

Total Credits 180.0-181.0

*

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

First Year

Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 101	3.0 CIVC 101	1.0 EDEX 142	3.0 VACATION	
EDUC 106	1.0 EDUC 107	1.0 EDUC 108	1.0	
ENGL 101	3.0 ENGL 102	3.0 EDUC 123	3.0	
or 111	or 112			
HIST 161	4.0 HIST 162	4.0 ENGL 103	3.0	
	or 163	or 113		
MATH 101	4.0 MATH 102	4.0 MATH 107	3.0	
	or 172	or 173		
UNIV T101	1.0			
	16	13	13	0

Second Year

Fall	Credits Winter	Credits Spring	Credits Summer	Credits
ANTH 101	3.0 EDUC 216	3.0 EDUC 305	1.0 EDLT 325	3.0
COOP 101*	1.0 HIST 201	4.0 EDUC 308	3.0 EDUC 322	3.0
EDEX 344	3.0 HIST 214	4.0 ENGL 205	3.0 HIST 275	3.0
EDUC 205	1.0 PSCI 110	4.0 HIST 202	4.0 PSCI 375	4.0
EDUC 365	3.0 PSY 150	3.0 HIST 203	4.0 SOC 101	3.0
PSY 101	3.0			
	14	18	15	16

Third Year

Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDUC 316	3.0 ECON 201	4.0
EDUC 356	3.0	EDEX 368	3.0 EDPO 312	3.0
		PSCI 140	4.0 EDUC 324	3.0
		PSY 320	3.0 PSCI 150	4.0

		SOC 335	3.0 SOC 210	4.0
	3	0	16	18
Fourth Year				
Fall	Credits Winter	Credits Spring	Credits	
EDUC 409	9.0 EDUC 410	9.0 ECON 202	4.0	
PSCI 220	4.0 AFAS 201, GST 100, or GST 101	3.0 EDUC 405	1.0	
		HIST 212	4.0	
		PSCI 240	4.0	
	13	12	13	
Total Credits 180				

*

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Program Level Outcomes

- Make ethical, sound decisions based on Pennsylvania Professional Code of Conduct.
- Demonstrate leadership in the classroom, school community, and profession that is focused on positive and innovative change.
- Seek ongoing professional growth and development in the field to improve practice.
- Demonstrate a growth mindset, and take responsibility for student learning and academic growth.
- Partner with parents in the education of their children.
- Use culturally responsive pedagogy to create equitable learning experiences for all students.
- Use critical self-reflection to understand one's own identity in the context of a classroom of diverse learners.
- Create an inclusive classroom environment with high expectations for all learners.
- Demonstrate the ability to self-reflect on his or her professional practice.
- Use data and classroom based evidence to inform and improve professional practice.
- Demonstrate strong content knowledge in all subject areas that meet PDE content requirements, specifically related to history, civics, citizenship, anthropology, sociology and government.
- Deliver effective instruction using high leverage teaching practices, which allow candidates to assist 7-12 students to build upon evidence-based and expository writing in the social sciences.
- Use appropriate means of ongoing assessment, and utilize data to demonstrate student growth and make appropriate modifications to the curriculum.
- Integrate tools of technology in teaching and learning.
- Construct well-written, research-based, engaging lesson plans aligned with the Common Core Standards for Social Studies and the National Council for which build knowledge through content- rich expository texts.
- Create a safe, positive and productive learning environment that supports and facilitates learning for all students.

- Build a sense of community in a collaborative climate, based on developmentally appropriate pro- social skills, where students work collaboratively and have a shared sense of ownership.
- Demonstrate a thorough understanding of child and/or adolescent development and the learning sciences.
- Uses differentiated instruction to meet the diverse learning needs of one's students.
- Use developmentally informed teaching practices.

Elementary Education PK4 BS / Applied Behavior Analysis MS

Major: Elementary Education, PK-4 and Applied Behavioral Analysis

Degree Awarded: Bachelor of Science (BS) and Master of Science (MS)

Calendar Type: Quarter

Minimum Required Credits: 225.0

Co-op Options: One Co-op (Five years)

About the Program

The BS/MS in Teacher Education with Elementary Education and MS in Applied Behavior Analysis offers a flexible, innovative curriculum with a unique emphasis on creative problem solving and the application of the latest technologies to learning. This accelerated degree program allows candidates to pursue a BS in Education with Pennsylvania initial state teacher certification and continue for a fifth graduate year to complete the MS in Applied Behavior Analysis.

The BS/MS in Teacher Education and Applied Behavior Analysis track prepares students academically and practically for careers in PK–12 teaching or other educational settings, including capabilities to:

- Demonstrate professional ethics and independent and creative academic best practices that exhibit outstanding leadership, organizational, cross cultural, inter-personal and advocacy skills including the ability to communicate effectively with internal and external groups.
- Understand the changing role of teachers in increasingly diverse societies
- Demonstrate a strong academic background in all subject areas that meet PDE requirements including literacy, language and STEM areas
- Demonstrate the ability to create and maintain a positive and democratic classroom climate for students
- Demonstrate a thorough understanding of child development in their ability to develop and implement learning opportunities that are unique to every child
- Develop creative academic leadership skills with a global perspective on current educational issues, knowledge of best pedagogical practices, tools to effectively integrate technology in curriculum, assessment and instruction, and a strong academic background in all subject areas that meet PDE content requirements.
- Develop competencies to become reflective practitioners who are lifelong learners, who base their practice on theory, research, and developmentally appropriate pedagogy by analyzing, implementing, and evaluating existing and new instructional strategies and practices in a variety of educational institutions/organizations.

The BS program requires that candidates 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 EDEX, EDLT, EDPO, EDUC, ESTM and MTED courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program. Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

Admission Requirements

Same as BS in Elementary Education, BSMS application must be submitted during Sophomore year before 120 credits have been completed with cumulative 3.0 GPA to gain acceptance into BS/MS program. Continuation as a BS/MS student in Applied Behavior Analysis program requires maintaining minimum term and cumulative 3.0 GPA.

Degree Requirements

General Education/Content Requirements

BIO 100	Applied Cells, Genetics & Physiology	3.0
or BIO 161	General Biology I	
BIO 101	Applied Biological Diversity, Ecology & Evolution	3.0
or BIO 162	General Biology II	
CHEM 111	General Chemistry I	4.0
CIVC 101	Introduction to Civic Engagement *	1.0
COM 111	Principles of Communication	3.0
COOP 101	Career Management and Professional Development *	1.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
ENVS 260	Environmental Science and Society	3.0
HIST 275	History of Pennsylvania	3.0
MATH 101	Introduction to Analysis I	4.0
or MATH 171	Introduction to Analysis A	
MATH 102	Introduction to Analysis II	4.0
or MATH 172	Introduction to Analysis B	
MATH 107	Probability and Statistics for Liberal Arts	3.0
or MATH 173	Introduction to Analysis C	
MUSC 130	Introduction to Music	3.0
NFS 100	Nutrition, Foods, and Health	2.0
NFS 101	Introduction to Nutrition & Food	1.0
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	3.0
UNIV T101	The Drexel Experience *	1.0
English (Literature) elective: Select course between ENGL 200 - ENGL 360		3.0
Free electives		11.0

Pedagogy Requirements

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 205	Sophomore Pedagogy Seminar	1.0

EDUC 210	Early Language Development	3.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 222	Development in Early Childhood Education	3.0
EDUC 236	Early Literacy I	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 314	Science Teaching Methods	3.0
EDUC 316	Teaching in Urban Contexts	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 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 411	Family and Community Partnerships	3.0
ESTM 342	Teaching Engineering Concepts to Children	3.0
MTED 417	Mathematics Methods and Content: Early Childhood	3.0
MTED 418	Mathematics Methods and Content	3.0

Student Teaching Experience

EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0

MS in Applied Behavior Analysis Core

ABA 630	Fundamental Elements of Behavior Change	4.5
ABA 632	Behavioral Assessment and Functional Analysis	4.5
ABA 633	Behavioral Interventions	4.5
ABA 635	Ethical Considerations and Professional Conduct	4.5
ABA 636	Applications of Fundamental Elements of Behavior Analysis	4.5
ABA 637	Behaviorism: History, Theory and Philosophy	4.5
ABA 638	Foundational Principles of Behavior Analysis	4.5
ABA 731	Research Methods and Practice	4.5

MS in ABA Capstone Sequence

ABA 780	Capstone in ABA I	4.5
ABA 781	Capstone in ABA II	4.5

Total Credits

225.0

*

COOP 101, CIVC 101 and UNIV T101 are not required for Education transfer students. Instead, these 3.0 credits are replaced with free electives.

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4+1, 1 co-op (Accelerated program completed in 5 years)*

Students complete undergraduate requirements in four years, then convert to graduate status in the fifth and final year.

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COM 111	3.0 BIO 100 or 161	3.0 EDEX 142	3.0 VACATION	
EDUC 101	3.0 CIVC 101*	1.0 EDUC 108	1.0	
EDUC 106	1.0 EDUC 107	1.0 EDUC 210	3.0	
ENGL 101 or 111	3.0 EDUC 222	3.0 ENGL 103 or 113	3.0	
UNIV T101	1.0 ENGL 102 or 112	3.0 PSY 101	3.0	
(UG) Free Electives	3.0 MATH 101 or 171	4.0 MATH 102 or 172	4.0	
	14	15	17	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
CHEM 111	4.0 BIO 101 or 161	3.0 EDUC 236	3.0 EDPO 312	3.0
COOP 101*	1.0 EDUC 216	3.0 EDUC 305	1.0 EDUC 306	3.0
EDEX 344	3.0 EDUC 316	3.0 EDUC 308	3.0 EDUC 335	3.0
EDUC 205	1.0 NFS 100	2.0 EDUC 314	3.0 EDUC 338	3.0
EDUC 365	3.0 NFS 101	1.0 EDUC 326	3.0 MUSC 130	3.0
MATH 107 or 173	3.0 PSY 330	3.0 PSY 320	3.0	
	15	15	16	15
Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	ESTM 342	3.0 EDLT 325	3.0
EDUC 336	3.0 MTED 417	3.0 EDEX 368	3.0 EDUC 324	3.0
		ENVS 260	3.0 EDUC 355	3.0
		PHYS 151	3.0 HIST 275	3.0
		English (Literature) Elective: ENGL 200 - ENGL 360	3.0 MTED 418	3.0
	3	3	15	15
Fourth Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 405	1.0 EDUC 410	9.0 ABA 632	4.5 Student converts to Graduate status	
EDUC 409	9.0 ABA 637	4.5 ECON 201	4.0 ABA 633	4.5
EDUC 411	3.0 (UG) Free Elective	3.0 SOC 335	3.0 ABA 731	4.5

ABA 630	4.5	(UG) Free Electives	5.0	
	17.5	16.5	16.5	9
Fifth Year				
Fall	Credits Winter	Credits Spring	Credits	
ABA 638	4.5 ABA 636	4.5 ABA 635	4.5	
ABA 780	4.5 ABA 781	4.5		
	9	9	4.5	
Total Credits 225				

*

Students must receive Department permission to pursue the NCOP option. Students will work directly with their advisor to establish a unique plan of study.

**

COOP 101, CIVC 101 and UNIV T101 are not required for Education transfer students, instead these 3 credits are replaced with free electives. Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Elementary Education PK4 BS / Special Education MS

Major: Elementary Education, PK-4 and Special Education

Degree Awarded: Bachelor of Science (BS) and Master of Science (MS)

Calendar Type: Quarter

Minimum Required Credits: 228.0

Co-op Options: One Co-op (Five years)

About the Program

The BS/MS in Teacher Education with Elementary Education and MS in Special Education offers a flexible, innovative curriculum with a unique emphasis on creative problem solving and the application of the latest technologies to learning. This accelerated degree program allows candidates to pursue a BS in Education with Pennsylvania initial state teacher certification and continue for a fifth graduate year to complete the MS in Special Education which would allow them to also obtain special education certification.

The BS/MS in Teacher Education and Special Education track prepares students academically and practically for careers in PK-12 teaching or other educational settings, including capabilities to:

- Demonstrate professional ethics and independent and creative academic best practices that exhibit outstanding leadership, organizational, cross cultural, inter-personal and advocacy skills including the ability to communicate effectively with internal and external groups.
- Understand the changing role of teachers in increasingly diverse societies
- Demonstrate a strong academic background in all subject areas that meet PDE requirements including literacy, language and STEM areas
- Demonstrate the ability to create and maintain a positive and democratic classroom climate for students

- Demonstrate a thorough understanding of child development in their ability to develop and implement learning opportunities that are unique to every child
- Develop creative academic leadership skills with a global perspective on current educational issues, knowledge of best pedagogical practices, tools to effectively integrate technology in curriculum, assessment and instruction, and a strong academic background in all subject areas that meet PDE content requirements.
- Develop competencies to become reflective practitioners who are lifelong learners, who base their practice on theory, research, and developmentally appropriate pedagogy by analyzing, implementing, and evaluating existing and new instructional strategies and practices in a variety of educational institutions/organizations.

The BS program requires that candidates 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 EDEX, EDLT, EDPO, EDUC, ESTM and MTED courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program. Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

Admission Requirements

Same as BS in Elementary Education, BSMS application must be submitted during Sophomore year before 120 credits have been completed with cumulative 3.0 GPA to gain acceptance into BS/MS program. Continuation as a BS/MS student in Special Education program requires maintaining minimum term and cumulative 3.0 GPA.

Degree Requirements

General Education/Content Requirements

BIO 100	Applied Cells, Genetics & Physiology	3.0
or BIO 161	General Biology I	
BIO 101	Applied Biological Diversity, Ecology & Evolution	3.0
or BIO 162	General Biology II	
CHEM 111	General Chemistry I	4.0
CIVC 101	Introduction to Civic Engagement *	1.0
COM 111	Principles of Communication	3.0
COOP 101	Career Management and Professional Development *	1.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
ENVS 260	Environmental Science and Society	3.0
HIST 275	History of Pennsylvania	3.0
MUSC 130	Introduction to Music	3.0
MATH 101	Introduction to Analysis I	4.0
or MATH 171	Introduction to Analysis A	
MATH 102	Introduction to Analysis II	4.0
or MATH 172	Introduction to Analysis B	

MATH 107	Probability and Statistics for Liberal Arts	3.0
or MATH 173	Introduction to Analysis C	
NFS 100	Nutrition, Foods, and Health	2.0
NFS 101	Introduction to Nutrition & Food	1.0
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	3.0
UNIV T101	The Drexel Experience *	1.0
English (Literature) elective: Select course between ENGL 200 - ENGL 360		3.0
Free electives		11.0

Pedagogy Requirements

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 210	Early Language Development	3.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 222	Development in Early Childhood Education	3.0
EDUC 236	Early Literacy I	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 314	Science Teaching Methods	3.0
EDUC 316	Teaching in Urban Contexts	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 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 411	Family and Community Partnerships	3.0
ESTM 342	Teaching Engineering Concepts to Children	3.0
MTED 417	Mathematics Methods and Content: Early Childhood	3.0
MTED 418	Mathematics Methods and Content	3.0

Student Teaching Experience

EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0

MS in Special Education

Core Courses

EDEX 536	Special Education Law and Process	3.0
EDEX 543	Emotional and Behavioral Support of Individuals with Disabilities	3.0
EDEX 549	Teaching Individuals with High Incident Disabilities	3.0
EDEX 550	Teaching Individuals with Low Incident Disabilities	3.0
EDEX 552	Integrating Technology for Learning & Achievement	3.0
EDEX 555	Teaching Students with Autism Spectrum Disorder	3.0
EDEX 578	Special Education Practicum PK-12	3.0
EDEX 588	Implementing Academic Interventions in Inclusive Educational Environments	3.0

Concentration Options

Students obtaining an initial certification must complete the following concentration:

Initial Certification Concentration		24.0
EDEX 514	Special Education Student Teaching Seminar	
EDEX 542	Fundamentals of Special Education	
EDEX 544	Inclusive Practices	
EDEX 568	Literacy and Content Skill Development PK-12	
EDEX 575	Teaching STEAM in an Inclusive Environment PK-12	
EDUC 515	Adolescent Learners	
EDUC 521	Typical and Atypical Development in Early Childhood Education	
Professional Elective		
Students not obtaining an initial certification must complete one of the following Capstone options		
Capstone Research Sequence		9.0-10.5
EDU 780	Capstone Research	
EDU 781	Masters Capstone I	
EDUP 781	Practitioner Capstone Course II	
Students not obtaining an initial certification must also complete one of the following concentrations:		
Concentration Options		
Select one of the following options:		12.0
Autism Spectrum Disorders		
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	
Special Education Law and Process		
EDEX 600	Family, School and Community Engagement in Special Education	
EDEX 601	Special Education Advocacy	
EDEX 602	Special Education Dispute Resolution and Skills Training	
EDEX 710	School Law & Policy in Special Education	
Custom-Designed Concentration		
A custom-designed concentration will consist of 4 professional elective courses that will be selected in consultation with the Program Director and/or Advisor.		

*

COOP 101, CIVC 101 and UNIV T101 are not required for Education transfer students. Instead, these 3.0 credits are replaced with free electives.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses

with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4+1, 1 co-op (Accelerated program completed in 5 years)*

Students complete undergraduate requirements in four years, then convert to graduate status in the fifth and final year.

Program of Study for students not obtaining an initial certification.

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COM 111	3.0 BIO 100 or 161	3.0 EDEX 142	3.0 VACATION	
EDUC 101	3.0 CIVC 101*	1.0 EDUC 108	1.0	
EDUC 106	1.0 EDUC 107	1.0 EDUC 210	3.0	
ENGL 101	3.0 EDUC 222	3.0 ENGL 103 or 113	3.0	
UNIV T101	1.0 MATH 101 or 171	4.0 MATH 102 or 172	4.0	
(UG) Free Elective	3.0 ENGL 102 or 112	3.0 PSY 101	3.0	
	14	15	17	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
CHEM 111	4.0 BIO 101 or 161	3.0 EDUC 236	3.0 EDPO 312	3.0
EDEX 344	3.0 COOP 101*	1.0 EDUC 305	1.0 EDUC 306	3.0
EDUC 205	1.0 EDUC 216	3.0 EDUC 308	3.0 EDUC 335	3.0
EDUC 365	3.0 EDUC 316	3.0 EDUC 314	3.0 EDUC 338	3.0
MATH 107 or 173	3.0 NFS 100	2.0 EDUC 326	3.0 MUSC 130	3.0
	NFS 101	1.0 PSY 320	3.0	
	PSY 330	3.0		
	14	16	16	15
Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDEX 368	3.0 EDLT 325	3.0
EDUC 336	3.0 MTED 417	3.0 ENVS 260	3.0 EDUC 324	3.0
		ESTM 342	3.0 EDUC 355	3.0
		PHYS 151	3.0 HIST 275	3.0
		English (Literature) Elective: ENGL 200 - ENGL 360	3.0 MTED 418	3.0
		EDEX 552	3.0	
	3	3	18	15
Fourth Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 405	1.0 EDUC 410	9.0 ECON 201	4.0 Student classified as Graduate Student	
EDUC 409	9.0 (UG) Free Elective	3.0 SOC 335	3.0 EDU 780	3.0
EDUC 411	3.0	(UG) Free Electives	5.0 (GR) Concentration Courses	9.0

EDEX 575	3.0	EDEX 550	3.0	
	16	12	15	12
Fifth Year				
Fall	Credits	Winter	Credits	Spring
EDEX 536	3.0	EDEX 543	3.0	EDEX 588
EDEX 549	3.0	EDEX 555	3.0	EDUP 781
EDEX 578	3.0	EDU 781	3.0	(GR)
				Concentration Course
	9	9	9	
Total Credits 228				

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Students must receive Department permission to pursue the NCOP option. Students will work directly with their advisor to establish a unique plan of study.

★★

COOP 101, CIVC 101 and UNIV T101 are not required for Education transfer students. Instead, these 3.0 credits are replaced with free electives.

Elementary Education PK4 BS / Teaching, Learning & Curriculum MS

Major: Elementary Education, PK-4; Teaching, Learning and Curriculum Degree Awarded: Bachelor of Science (BS) and Master of Science (MS)

Calendar Type: Quarter

Minimum Required Credits: 225.0

Co-op Options: One Co-op (Five years)

About the Program

The BS/MS in Elementary Education (PK-4) and Teaching, Learning and Curriculum offers a flexible, innovative curriculum with a unique emphasis on creative problem solving and the application of the latest technologies to learning. This accelerated degree program allows candidates to pursue a BS in Education (Elementary/PK-4) with Pennsylvania initial state teacher certification and continue for a fifth graduate year to complete the MS in Teaching Learning and Curriculum (Advanced Track).

The BS/MS in Elementary Education and Teaching, Learning and Curriculum (Advanced Track) prepares students academically and practically for careers in PK–12 teaching or other educational settings, including capabilities to:

- Demonstrate professional ethics and independent and creative academic best practices that exhibit outstanding leadership, organizational, cross cultural, inter-personal and advocacy skills including the ability to communicate effectively with internal and external groups.
- Understand the changing role of teachers in increasingly diverse societies
- Demonstrate a strong academic background in all subject areas that meet PDE requirements including literacy, language and STEM areas
- Demonstrate the ability to create and maintain a positive and democratic classroom climate for students
- Demonstrate a thorough understanding of child development in their ability to develop and implement learning opportunities that are unique to every child

- Develop creative academic leadership skills with a global perspective on current educational issues, knowledge of best pedagogical practices, tools to effectively integrate technology in curriculum, assessment and instruction, and a strong academic background in all subject areas that meet PDE content requirements.
- Develop competencies to become reflective practitioners who are lifelong learners, who base their practice on theory, research, and developmentally appropriate pedagogy by analyzing, implementing, and evaluating existing and new instructional strategies and practices in a variety of educational institutions/organizations.
- Demonstrate advanced teaching knowledge and skills well beyond that required for initial Pennsylvania certification
- Develop advanced skills 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.
- Have in-depth knowledge of both public and private (non-profit and for-profit) institutions as well as small and large institutions.

The BS program requires that candidates 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 EDEX, EDLT, EDPO, EDUC, ESTM and MTED courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program. Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

Admission Requirements

Admission requirements are the same as the BS in Elementary Education. The BS/MS application must be submitted during sophomore year before 120.0 credits have been completed with a cumulative 3.0 GPA to gain acceptance into BS/MS program. Continuation as a BS/MS student in Teaching, Learning and Curriculum (Advanced Track) requires maintaining a minimum term and cumulative 3.0 GPA.

Degree Requirements

General Education/Content Requirements

BIO 100	Applied Cells, Genetics & Physiology	3.0
or BIO 161	General Biology I	
BIO 101	Applied Biological Diversity, Ecology & Evolution	3.0
or BIO 162	General Biology II	
CHEM 111	General Chemistry I	4.0
CIVC 101	Introduction to Civic Engagement *	1.0
COM 111	Principles of Communication	3.0
COOP 101	Career Management and Professional Development *	1.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
ENVS 260	Environmental Science and Society	3.0

HIST 275	History of Pennsylvania	3.0
MATH 101	Introduction to Analysis I	4.0
or MATH 171	Introduction to Analysis A	
MATH 102	Introduction to Analysis II	4.0
or MATH 172	Introduction to Analysis B	
MATH 107	Probability and Statistics for Liberal Arts	3.0
or MATH 173	Introduction to Analysis C	
MUSC 130	Introduction to Music	3.0
NFS 100	Nutrition, Foods, and Health	2.0
NFS 101	Introduction to Nutrition & Food	1.0
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	3.0
UNIV T101	The Drexel Experience *	1.0
English (Literature) elective: Select course between ENGL 200 - ENGL 360		3.0
Free electives		11.0
Pedagogy Requirements		
EDEX 142	Special Education Foundations: Referral and Assessment (MS in TLC Core)	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 210	Early Language Development	3.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 222	Development in Early Childhood Education	3.0
EDUC 236	Early Literacy I	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 314	Science Teaching Methods	3.0
EDUC 316	Teaching in Urban Contexts	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 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 411	Family and Community Partnerships	3.0
ESTM 342	Teaching Engineering Concepts to Children	3.0
MTED 417	Mathematics Methods and Content: Early Childhood	3.0
MTED 418	Mathematics Methods and Content	3.0
Student Teaching Experience		
EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0
MS in TLC Core		
EDAM 714	Instructional and Curriculum Leadership (Take EDLS 550 if pursuing Reading Specialist Concentration)	3.0
or EDLS 550	Theories of Reading and Writing	
EDLT 504	Learning Engineering	3.0
EDUC 524	Current Research in Curriculum & Instruction (Take EDLS 575 if pursuing Reading Specialist Concentration)	3.0

or EDLS 575	Responding to Children's and Young Adult Literature	
EDUC 530	Advanced Techniques in Instruction & Assessment	3.0
EDUC 609	Language & Culture in Education (Take EDLS 555 if pursuing Reading Specialist Concentration)	3.0
or EDLS 555	Understanding Literacy through Sociocultural Perspectives	
Policy, Law & Organization Courses		6.0
Select two courses in Education Policy, Law & Organization EDPO or EDAM (500-799). Reading Specialist Concentration students enroll in EDLS 570 and EDLS 650.		
EDAM 705	School Law and Politics	
EDCR 518	Evidence-Based Evaluation	
EDLS 570	Literacy and Evaluation	
EDLS 650	Designing a Literacy Program	
EDPO 622	Foundations of Education Policy	
MS in TLC Capstone Sequence		
EDU 780	Capstone Research	3.0
EDU 781	Masters Capstone I	3.0
EDUP 781	Practitioner Capstone Course II	3.0
Professional or Concentration Electives		15.0
Candidates may select any combination of the following for 15.0 credits: ABA, CRTV, EDAM, EDEX, EDGI, EDLS, EDLT, EDPO, EDUC, EHRD, ELL, ENTP, ESTM, or MTED (500-799 level), or candidates select a formal concentration. (See formal concentration options below)		
Total Credits		225.0

*

COOP 101, CIVC 101 and UNIV T101 are not required for Education transfer students. Instead, these 3.0 credits are replaced with free electives.

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Concentration Option *

Human Resource Development		
EHRD 500	Foundations of Human Resources Development	
EHRD 602	Coaching and Mentoring for Sustainable Learning	
EHRD 611	Organization Development and Change	
EHRD 612	Strategic Human Resource Development	
EHRD 660	Principles of Adult Learning	
Autism Spectrum Disorders		
EDEX 555	Teaching Students with Autism Spectrum Disorder	
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	
Creativity and Innovation		
CRTV 501	Foundations in Creativity	
CRTV 502	Tools and Techniques in Creativity	
CRTV 503	Creativity in the Workplace	
CRTV 620	Research Methods and Assessment of Creative and Innovative Thinking	
CRTV 630	Global Perspectives on Creativity	
Educational Policy		
EDPO 622	Foundations of Education Policy	
EDPO 624	The Shaping of American Education Policy: Global Forces, Interest Groups, and Politics	
EDPO 628	American Educational Policy and U.S. Competitiveness	
EDPO 632	Ethics in Educational Policy Making	

EDPO 636	Access & Equity in Educational Policy Making
Global & International Education	
EDGI 506	Comparative Higher Education Systems
EDGI 510	Culture, Society & Education in Comparative Perspective
EDGI 522	Education for Global Citizenship, Sustainability, and Social Justice
EDGI 524	Measuring the World: Education and National Development
EDGI 552	Gender, Education, and International Organizations
Higher Education	
EDGI 506	Comparative Higher Education Systems
EDHE 501	Foundations of Higher Education and Governance
EDHE 531	Legal Issues & Ethics in Higher Education
EDHE 662	Critical Issues in Student Affairs
EHRD 660	Principles of Adult Learning
Learning Technologies	
EDLT 503	The Learning Sciences
EDLT 504	Learning Engineering
EDLT 543	Play & Learning in a Participatory Culture
	or EDLT 591 Learning Analytics: Lenses on students, teaching, and curriculum enactment
EDLT 551	Instructional Design Methods
ELL 503	Teaching and Learning Issues in E-Learning
Multisensory Reading Instruction Level 1	
EDLS 620	Applied Methods in Multisensory Reading Instruction
EDLS 621	Multisensory Reading Instruction
EDLS 622	Basic Word Study I
EDLS 623	Basic Word Study II
EDLS 624	Multisensory Practicum I
EDLS 625	Multisensory Practicum II
EDLS 626	Multisensory Practicum III
	Professional Elective (minimum 3.0 credits) **
Reading Specialist Certification Concentration	
EDLS 560	Reading and Writing in the Content Areas (7-12)
EDLS 565	Constructing Meaning through Reading and Writing
EDLS 620	Applied Methods in Multisensory Reading Instruction
EDLS 622	Basic Word Study I
EDLS 623	Basic Word Study II
EDLS 624	Multisensory Practicum I
EDLS 625	Multisensory Practicum II
EDLS 626	Multisensory Practicum III
Teaching English as a Second Language Certification	
EDUC 602	Language Learning & Teaching
EDUC 604	Structure and Sound System of English
EDUC 606	Design and Assessment
EDUC 608	The Intercultural Learner
	Professional Elective (minimum 3 credits) **
Social Emotional Behavioral Wellness	
EDEX 580	Social Emotional Wellness and Evidence-Based Preventative School Practices
EDEX 581	Understanding Social Emotional Disorders
EDEX 582	Evidence-Based School Interventions and Trauma Informed Education/Care
EDEX 583	Collaboration and Community Based Practices to Promote Social Emotion Wellness
	Professional Elective (minimum 3 credits) **

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Candidates may opt for a formal concentration or a Customized Concentration which may include course work from other Drexel academic departments in consultation with an academic advisors. Sample customized concentrations might include:

- Educational Administration
- Evaluation & Assessment
- Instructional Design
- Leadership in Educational Settings
- Learning in Game-Based Environments
- Special Education Law and Process
- Special Education Leadership
- Urban Education

**

Complete 3.0 graduate elective credits (500-799) in EDUC, EDEX, EDGI, EDAM, EHRD, EDHE, CRTV, MTED, EDLT, EDLS, ELL, ABA, EDPO, ENTP or ESTM.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4+1, 1 co-op (Accelerated program completed in 5 years)*

Students complete undergraduate requirements in four years, then convert to graduate stats in the fifth and final year.

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COM 111	3.0 BIO 100	3.0 EDEX 142	3.0 VACATION	
EDUC 101	3.0 CIVC 101**	1.0 EDUC 108	1.0	
EDUC 106	1.0 EDUC 107	1.0 EDUC 210	3.0	
ENGL 101	3.0 ENGL 102	3.0 ENGL 103	3.0	
UNIV T101**	1.0 EDUC 222	3.0 MATH 102	4.0	
		or 172		

Free Elective	3.0 MATH 101	4.0 PSY 101	3.0	
	14	15	17	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
CHEM 111	4.0 BIO 101	3.0 EDUC 236	3.0 EDPO 312	3.0
EDEX 344	3.0 COOP 101**	1.0 EDUC 305	1.0 EDUC 306	3.0
EDUC 205	1.0 EDUC 216	3.0 EDUC 308	3.0 EDUC 335	3.0
EDUC 365	3.0 EDUC 316	3.0 EDUC 314	3.0 EDUC 338	3.0
MATH 107 or 173	3.0 NFS 100	2.0 EDUC 326	3.0 MUSC 130	3.0
	NFS 101	1.0 PSY 320	3.0	
	PSY 330	3.0		
	14	16	16	15
Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDEX 368	3.0 EDLT 325	3.0
EDUC 336	3.0 MTED 417	3.0 ENVS 260	3.0 EDUC 324	3.0
		ESTM 342	3.0 EDUC 355	3.0
		PHYS 151	3.0 HIST 275	3.0
		(UG)	3.0 MTED 418	3.0
		ENGL (Literature) elective: ENGL 200-ENGL 360		
		(GR) MS Professiona Elective	3.0 (GR) MS Professiona Elective	3.0
	3	3	18	18
Fourth Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 405	1.0 EDLT 504	3.0 SOC 335	3.0 EDAM 705	3.0
EDUC 409	9.0 EDUC 410	9.0 ECON 201	4.0 EDUC 530	3.0
EDUC 411	3.0	EDAM 714	3.0 EDUC 524	3.0
(GR) MS Professiona Elective	3.0	(UG) Free Electives	8.0	
		Student converts to Grad status at the end of the Spring Term***		
	16	12	18	9
Fifth Year				
Fall	Credits Winter	Credits Spring	Credits	
EDU 780	3.0 EDU 781	3.0 EDCR 518 or EDPO 620	3.0	
EDUC 609	3.0 (GR) MS Professiona Elective	3.0 EDUP 781	3.0	
(GR) MS Professional Elective	3.0			
	9	6	6	
Total Credits 225				

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Students must receive Department permission to pursue the NCOP option. Students will work directly with their advisor to establish a unique plan of study.

**

COOP 101, CIVC 101 and UNIV T101 are not required for Education transfer students. Instead, these 3.0 credits are replaced with free electives.

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101

Accelerated Degree Level Conversion form (<https://drexel.edu/graduatecollege/forms-policies/forms/>) must be submitted in Spring Term.

Elementary Education (PK4 and Special Education) BS / Applied Behavior Analysis MS

Major: Elementary Education, PK-4 and Special Education and Applied Behavioral Analysis

Degree Awarded: Bachelor of Science (BS) and Master of Science (MS)

Calendar Type: Quarter

Minimum Required Credits: 231.5

Co-op Options: One Co-op (Five years)

About the Program

The BS/MS in Teacher Education with Elementary Education and MS in Applied Behavior Analysis offers a flexible, innovative curriculum with a unique emphasis on creative problem solving and the application of the latest technologies to learning. This accelerated degree program allows candidates to pursue a BS in Education with Pennsylvania initial state teacher certification and continue for a fifth graduate year to complete the MS in Applied Behavior Analysis.

The BS/MS in Teacher Education and Applied Behavior Analysis track prepares students academically and practically for careers in PK–12 teaching or other educational settings, including capabilities to:

- Demonstrate professional ethics and independent and creative academic best practices that exhibit outstanding leadership, organizational, cross cultural, inter-personal and advocacy skills including the ability to communicate effectively with internal and external groups.
- Understand the changing role of teachers in increasingly diverse societies
- Demonstrate a strong academic background in all subject areas that meet PDE requirements including literacy, language and STEM areas
- Demonstrate the ability to create and maintain a positive and democratic classroom climate for students
- Demonstrate a thorough understanding of child development in their ability to develop and implement learning opportunities that are unique to every child
- Develop creative academic leadership skills with a global perspective on current educational issues, knowledge of best pedagogical practices, tools to effectively integrate technology in curriculum, assessment and instruction, and a strong academic background in all subject areas that meet PDE content requirements.

- Develop competencies to become reflective practitioners who are lifelong learners, who base their practice on theory, research, and developmentally appropriate pedagogy by analyzing, implementing, and evaluating existing and new instructional strategies and practices in a variety of educational institutions/organizations.

The BS program requires that candidates 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 EDEX, EDLT, EDPO, EDUC, ESTM and MTED courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program. Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

Admission Requirements

Same as BS in Elementary Education, BSMS application must be submitted during Sophomore year before 120 credits have been completed with cumulative 3.0 GPA to gain acceptance into BS/MS program. Continuation as a BS/MS student in Applied Behavior Analysis program requires maintaining minimum term and cumulative 3.0 GPA.

Degree Requirements

General Education/Content Requirements

BIO 100	Applied Cells, Genetics & Physiology	3.0
or BIO 161	General Biology I	
BIO 101	Applied Biological Diversity, Ecology & Evolution	3.0
or BIO 162	General Biology II	
CHEM 111	General Chemistry I	4.0
CIVC 101	Introduction to Civic Engagement *	1.0
COM 111	Principles of Communication	3.0
COOP 101	Career Management and Professional Development *	1.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
English (Literature) elective: Select course between ENGL 200 - ENGL 360		3.0
ENVS 260	Environmental Science and Society	3.0
HIST 275	History of Pennsylvania	3.0
MATH 171	Introduction to Analysis A	3.0
or MATH 101	Introduction to Analysis I	
MATH 172	Introduction to Analysis B	3.0
or MATH 102	Introduction to Analysis II	
MATH 173	Introduction to Analysis C	3.0
or MATH 107	Probability and Statistics for Liberal Arts	
MUSC 130	Introduction to Music	3.0
NFS 100	Nutrition, Foods, and Health	2.0
NFS 101	Introduction to Nutrition & Food	1.0
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	3.0
UNIV T101	The Drexel Experience *	1.0

Pedagogy Requirements

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 222	Development in Early Childhood Education	3.0
EDUC 236	Early Literacy I	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 314	Science Teaching Methods	3.0
EDUC 316	Teaching in Urban Contexts	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 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 411	Family and Community Partnerships	3.0
MTED 417	Mathematics Methods and Content: Early Childhood	3.0
MTED 418	Mathematics Methods and Content	3.0

Special Education Core Courses

EDEX 336	Special Education Law and Processes	3.0
EDEX 348	Emotional and Behavioral Support of Individuals with Disabilities	3.0
EDEX 349	Teaching Individuals with High Incident Disabilities	3.0
EDEX 350	Teaching Individuals with Low Incident Disabilities	3.0
EDEX 352	Integrating Technology for Learning & Achievement	3.0
EDEX 355	Teaching Students with Autism Spectrum Disorders	3.0
EDEX 378	Special Education: Methods & Practices PK-12	3.0
EDEX 388	Implementing Academic Interventions in Inclusive Educational Environments	3.0

Student Teaching Experience

EDUC 409 [WI]	Teaching Practicum	9.0
EDEX 414 [WI]	Special Education Student Teaching Seminar	9.0

MS in ABA Core

ABA 630	Fundamental Elements of Behavior Change	4.5
ABA 632	Behavioral Assessment and Functional Analysis	4.5
ABA 633	Behavioral Interventions	4.5
ABA 635	Ethical Considerations and Professional Conduct	4.5
ABA 636	Applications of Fundamental Elements of Behavior Analysis	4.5
ABA 637	Behaviorism: History, Theory and Philosophy	4.5
ABA 638	Foundational Principles of Behavior Analysis	4.5
ABA 731	Research Methods and Practice	4.5

MS in ABA Capstone Sequence

ABA 780	Capstone in ABA I	4.5
ABA 781	Capstone in ABA II	4.5

Total Credits		230.0
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COOP 101, CIVC 101 and UNIV T101 are not required for Education transfer students. Instead, these 3.0 credits are replaced with a 3.0 credit elective choice of ESTM 342 or EDEX 375.

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4+1, 1 co-op (Accelerated program completed in 5 years)*

Students complete undergraduate requirements in four years, then convert to graduate status in the fifth and final year.

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 101	3.0 BIO 100 or 161	3.0 EDEX 142	3.0 VACATION	
EDUC 106	1.0 CIVC 101**	1.0 EDUC 108	1.0	
EDUC 222	3.0 COM 111	3.0 ENGL 103 or 113	3.0	
ENGL 101 or 111	3.0 EDUC 107	1.0 MATH 173 or 107	3.0	
MATH 171 or 101	3.0-4.0 ENGL 102 or 112	3.0 MUSC 130	3.0	
UNIV T101*	1.0 MATH 172 or 102	3.0-4.0 PSY 101	3.0	
	14-15	14-15	16	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDEX 344	3.0 BIO 101 or 162	3.0 EDUC 236	3.0 EDEX 350	3.0
EDEX 349	3.0 COOP 101*	1.0 EDUC 326	3.0 EDUC 306	3.0
EDUC 205	1.0 EDEX 348	3.0 EDUC 365	3.0 EDUC 324	3.0
EDUC 308	3.0 EDEX 368	3.0 NFS 100	2.0 EDPO 312	3.0

(UG) English (Literature) elective	3.0 EDUC 216	3.0 NFS 101	1.0 HIST 275	3.0
	EDUC 314	3.0 PSY 320	3.0	
	EDUC 316	3.0		
	13	19	15	15
Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDEX 388	3.0 EDEX 336	3.0
MTED 417	3.0 EDUC 336	3.0 EDUC 305	1.0 EDUC 335	3.0
		EDUC 411	3.0 EDUC 338	3.0
		PHYS 151	3.0 EDUC 355	3.0
		PSY 330	3.0 ENVS 260	3.0
		MTED 418	3.0	
	3	3	13	18
Fourth Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDEX 378	3.0 EDEX 355	3.0 ABA 632	4.5 ABA 633	4.5
EDUC 405	1.0 EDEX 414	9.0 CHEM 111	4.0 ABA 731	4.5
EDUC 409	9.0 SOC 335	3.0 ECON 201	4.0	
ABA 630	4.5 ABA 637	4.5 EDEX 352	3.0	
		EDLT 325	3.0	
	17.5	19.5	18.5	9
Fifth Year				
Fall	Credits Winter	Credits Spring	Credits	
ABA 638	4.5 ABA 636	4.5 ABA 635	4.5	
ABA 780	4.5 ABA 781	4.5		
	9	9	4.5	
Total Credits 230-232				

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Students must receive Department permission to pursue the NCOP option. Students will work directly with their advisor to establish a unique plan of study.

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COOP 101, CIVC 101 and UNIV T101 are not required for Education transfer students. Instead, these 3.0 credits are replaced with a 3.0 credit elective choice of ESTM 342 or EDEX 375.

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Elementary Education (PK & Spec Ed) BS / Teaching, Learning & Curriculum MS

Major: Elementary Education, PK-4 and Special Education; Teaching, Learning and Curriculum

Degree Awarded: Bachelor of Science (BS) and Master of Science (MS)

Calendar Type: Quarter

Minimum Required Credits: 230.0

Co-op Options: One Co-op (Five years)

About the Program

The BS/MS in Elementary Education (PK-4 and Special Education) and Teaching, Learning and Curriculum offers a flexible, innovative curriculum with a unique emphasis on creative problem-solving and the application of the latest technologies to learning. This accelerated degree program allows candidates to pursue a BS in Education (Elementary/PK-4) with Pennsylvania initial state teacher certification and continue for a fifth graduate year to complete the MS in Teaching, Learning and Curriculum (Advanced Track).

The BS/MS in Elementary Teacher Education and Teaching, Learning and Curriculum Advanced track prepares students academically and practically for careers in PK–12 teaching or other educational settings, including capabilities to:

- Demonstrate professional ethics and independent and creative academic best practices that exhibit outstanding leadership, organizational, cross cultural, inter-personal and advocacy skills including the ability to communicate effectively with internal and external groups.
- Understand the changing role of teachers in increasingly diverse societies
- Demonstrate a strong academic background in all subject areas that meet PDE requirements including literacy, language and STEM areas
- Demonstrate the ability to create and maintain a positive and democratic classroom climate for students
- Demonstrate a thorough understanding of child development in their ability to develop and implement learning opportunities that are unique to every child
- Develop creative academic leadership skills with a global perspective on current educational issues, knowledge of best pedagogical practices, tools to effectively integrate technology in curriculum, assessment and instruction, and a strong academic background in all subject areas that meet PDE content requirements.
- Develop competencies to become reflective practitioners who are lifelong learners, who base their practice on theory, research, and developmentally appropriate pedagogy by analyzing, implementing, and evaluating existing and new instructional strategies and practices in a variety of educational institutions/organizations.
- Demonstrate advanced teaching knowledge and skills well beyond that required for initial Pennsylvania certification
- Develop advanced skills 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.
- Have in-depth knowledge of both public and private (non-profit and for-profit) institutions as well as small and large institutions.

The BS program requires that candidates 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 EDEX, EDLT, EDPO, EDUC, and MTED courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program. Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

Admission Requirements

Admission requirements are the same as the BS in Elementary Education. The BS/MS application must be submitted during sophomore year before 120.0 credits have been completed with a cumulative 3.0 GPA to gain acceptance into the BS/MS program. Continuation as a BS/MS student in Teaching, Learning and Curriculum (Advanced Track) requires maintaining a minimum term and cumulative 3.0 GPA.

Degree Requirements

General Education/Content Requirements

BIO 100	Applied Cells, Genetics & Physiology	3.0
or BIO 161	General Biology I	
BIO 101	Applied Biological Diversity, Ecology & Evolution	3.0
or BIO 162	General Biology II	
CHEM 111	General Chemistry I	4.0
CIVC 101	Introduction to Civic Engagement *	1.0
COM 111	Principles of Communication	3.0
COOP 101	Career Management and Professional Development *	1.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
English (Literature) elective: Select course between ENGL 200 - ENGL 360		3.0
ENVS 260	Environmental Science and Society	3.0
HIST 275	History of Pennsylvania	3.0
MATH 171	Introduction to Analysis A	3.0
MATH 172	Introduction to Analysis B	3.0
MATH 173	Introduction to Analysis C	3.0
or MATH 107	Probability and Statistics for Liberal Arts	
MUSC 130	Introduction to Music	3.0
NFS 100	Nutrition, Foods, and Health	2.0
NFS 101	Introduction to Nutrition & Food	1.0
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	3.0
UNIV T101	The Drexel Experience *	1.0

Pedagogy Requirements

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 222	Development in Early Childhood Education	3.0

EDUC 236	Early Literacy I	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 314	Science Teaching Methods	3.0
EDUC 316	Teaching in Urban Contexts	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 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
EDUC 411	Family and Community Partnerships	3.0
MTED 417	Mathematics Methods and Content: Early Childhood	3.0
MTED 418	Mathematics Methods and Content	3.0
Special Education Core Courses		
EDEX 336	Special Education Law and Processes	3.0
EDEX 348	Emotional and Behavioral Support of Individuals with Disabilities	3.0
EDEX 349	Teaching Individuals with High Incident Disabilities	3.0
EDEX 350	Teaching Individuals with Low Incident Disabilities	3.0
EDEX 352	Integrating Technology for Learning & Achievement	3.0
EDEX 355	Teaching Students with Autism Spectrum Disorders	3.0
EDEX 378	Special Education: Methods & Practices PK-12	3.0
EDEX 388	Implementing Academic Interventions in Inclusive Educational Environments	3.0
Student Teaching Experience		
EDUC 409 [WI]	Teaching Practicum	9.0
EDEX 414 [WI]	Special Education Student Teaching Seminar	9.0
MS in TLC Core		
EDAM 714	Instructional and Curriculum Leadership (Take EDLS 550 if pursuing Reading Specialist Concentration)	3.0
	or EDLS 550 Theories of Reading and Writing	
EDLT 504	Learning Engineering	3.0
EDUC 524	Current Research in Curriculum & Instruction (Take EDLS 575 if pursuing Reading Specialist Concentration)	3.0
	or EDLS 575 Responding to Children's and Young Adult Literature	
EDUC 530	Advanced Techniques in Instruction & Assessment	3.0
EDUC 609	Language & Culture in Education (Take EDLS 555 if pursuing Reading Specialist Concentration)	3.0
	or EDLS 555 Understanding Literacy through Sociocultural Perspectives	
Policy, Law & Organization Courses (6.0 credits)		6.0
Select two courses in Education Policy, Law & Organization EDPO or EDAM (500-799). Reading Specialist Concentration students enroll in EDLS 570 and EDLS 650.		
EDAM 705	School Law and Politics	
EDCR 518	Evidence-Based Evaluation	
EDLS 570	Literacy and Evaluation	
EDLS 650	Designing a Literacy Program	
EDPO 622	Foundations of Education Policy	
MS in TLC Capstone Sequence (9.0-10.5 credits)		
EDU 780	Capstone Research	3.0
EDU 781	Masters Capstone I	3.0
EDUP 781	Practitioner Capstone Course II	3.0
Professional or Concentration Electives (15.0 credits)		15.0
Candidates may select any combination of the following for 15.0 credits: ABA, CRTV, EDAM, EDEX, EDGI, EDLS, EDLT, EDPO, EDUC, EHRD, ELL, ENTP, ESTM, or MTED (500-799 level), or candidates select a formal concentration. (See formal concentration options below)		
Total Credits		230.0

*

COOP 101, CIVC 101 and UNIV T101 are not required for Education transfer students. Instead, these 3.0 credits are replaced with a 3.0 credit elective choice of ESTM 342 or EDEX 375.

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Concentration Option ***Human Resource Development**

EHRD 500	Foundations of Human Resources Development
EHRD 602	Coaching and Mentoring for Sustainable Learning
EHRD 611	Organization Development and Change
EHRD 612	Strategic Human Resource Development
EHRD 660	Principles of Adult Learning

Autism Spectrum Disorders

EDEX 555	Teaching Students with Autism Spectrum Disorder
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

Creativity and Innovation

CRTV 501	Foundations in Creativity
CRTV 502	Tools and Techniques in Creativity
CRTV 503	Creativity in the Workplace
CRTV 620	Research Methods and Assessment of Creative and Innovative Thinking
CRTV 630	Global Perspectives on Creativity

Educational Policy

EDPO 622	Foundations of Education Policy
EDPO 624	The Shaping of American Education Policy: Global Forces, Interest Groups, and Politics
EDPO 628	American Educational Policy and U.S. Competitiveness
EDPO 632	Ethics in Educational Policy Making
EDPO 636	Access & Equity in Educational Policy Making

Global & International Education

EDGI 506	Comparative Higher Education Systems
EDGI 510	Culture, Society & Education in Comparative Perspective
EDGI 522	Education for Global Citizenship, Sustainability, and Social Justice
EDGI 524	Measuring the World: Education and National Development
EDGI 552	Gender, Education, and International Organizations

Higher Education

EDGI 506	Comparative Higher Education Systems
EDHE 501	Foundations of Higher Education and Governance
EDHE 531	Legal Issues & Ethics in Higher Education
EDHE 662	Critical Issues in Student Affairs
EHRD 660	Principles of Adult Learning

Learning Technologies

EDLT 503	The Learning Sciences
EDLT 504	Learning Engineering
EDLT 543	Play & Learning in a Participatory Culture
	or EDLT 591 Learning Analytics: Lenses on students, teaching, and curriculum enactment
EDLT 551	Instructional Design Methods
ELL 503	Teaching and Learning Issues in E-Learning

Multisensory Reading Instruction Level 1

EDLS 620	Applied Methods in Multisensory Reading Instruction
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EDLS 621	Multisensory Reading Instruction
EDLS 622	Basic Word Study I
EDLS 623	Basic Word Study II
EDLS 624	Multisensory Practicum I
EDLS 625	Multisensory Practicum II
EDLS 626	Multisensory Practicum III
Professional Elective (minimum 3.0 credits) **	
Reading Specialist Certification Concentration	
EDLS 560	Reading and Writing in the Content Areas (7-12)
EDLS 565	Constructing Meaning through Reading and Writing
EDLS 620	Applied Methods in Multisensory Reading Instruction
EDLS 622	Basic Word Study I
EDLS 623	Basic Word Study II
EDLS 624	Multisensory Practicum I
EDLS 625	Multisensory Practicum II
EDLS 626	Multisensory Practicum III
Teaching English as a Second Language Certification	
EDUC 602	Language Learning & Teaching
EDUC 604	Structure and Sound System of English
EDUC 606	Design and Assessment
EDUC 608	The Intercultural Learner
Professional Elective (minimum 3 credits) **	
Social Emotional Behavioral Wellness	
EDEX 580	Social Emotional Wellness and Evidence-Based Preventative School Practices
EDEX 581	Understanding Social Emotional Disorders
EDEX 582	Evidence-Based School Interventions and Trauma Informed Education/Care
EDEX 583	Collaboration and Community Based Practices to Promote Social Emotion Wellness
Professional Elective (minimum 3 credits) **	

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Candidates may opt for a formal concentration or a **Customized Concentration** which may include course work from other Drexel academic departments in consultation with an academic advisors. Sample customized concentrations might include:

- Educational Administration
- Evaluation & Assessment
- Instructional Design
- Leadership in Educational Settings
- Learning in Game-Based Environments
- Special Education Law and Process
- Special Education Leadership
- Urban Education

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Complete 3.0 graduate elective credits (500-799) in EDUC, EDEX, EDGI, EDAM, EHRD, EDHE, CRTV, MTED, EDLT, EDLS, ELL, ABA, EDPO, ENTP or ESTM.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4+1, 1 co-op (Accelerated program completed in 5 years)*

Students complete undergraduate requirements in four years, then convert to graduate status in the fifth and final year.

First Year							
Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
EDUC 101	3.0	BIO 100 or 161	3.0	EDEX 142	3.0	VACATION	
EDUC 106	1.0	CIVC 101	1.0	EDUC 108	1.0		
EDUC 222	3.0	COM 111	3.0	ENGL 103 or 113	3.0		
ENGL 101 or 111	3.0	EDUC 107	1.0	MATH 173 or 107	3.0		
MATH 171	3.0	ENGL 102 or 112	3.0	MUSC 130	3.0		
UNIV T101	1.0	MATH 172	3.0	PSY 101	3.0		
14		14		16		0	
Second Year							
Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
EDEX 344	3.0	BIO 101 or 162	3.0	EDUC 236	3.0	EDEX 350	3.0
EDEX 349	3.0	COOP 101 ⁺	1.0	EDUC 326	3.0	EDPO 312	3.0
EDUC 205	1.0	EDEX 348	3.0	EDUC 365	3.0	EDUC 306	3.0
EDUC 308	3.0	EDEX 368	3.0	NFS 100	2.0	EDUC 324	3.0
(UG) English (Literature) elective: ENGL 200 - ENGL 360	3.0	EDUC 216	3.0	NFS 101	1.0	HIST 275	3.0
		EDUC 314	3.0	PSY 320	3.0		
		EDUC 316	3.0				
13		19		15		15	
Third Year							
Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
COOP EXPERIENCE		COOP EXPERIENCE		EDEX 378	3.0	EDUC 335	3.0
MTED 417	3.0	EDUC 336	3.0	EDEX 388	3.0	EDUC 338	3.0
				EDUC 305	1.0	EDUC 355	3.0
				EDUC 411	3.0	MTED 418	3.0
				PHYS 151	3.0	ENVS 260	3.0
				PSY 330	3.0	(GR) MS Professional Elective	3.0

		(GR) MS Professional Elective	3.0	
	3	3	19	18
Fourth Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDEX 336	3.0 EDEX 355	3.0 CHEM 111	4.0 EDAM 705	3.0
EDUC 405	1.0 EDEX 414	9.0 ECON 201	4.0 EDUC 524	3.0
EDUC 409	9.0 EDLT 504	3.0 EDEX 352	3.0 EDUC 530	3.0
EDPO 622 or EDCR 518	3.0 SOC 335	3.0 EDLT 325	3.0	
		EDAM 714	3.0	
		Student converts to Grad status at the end of the Spring Term		
	16	18	17	9
Fifth Year				
Fall	Credits Winter	Credits Spring	Credits	
EDU 780	3.0 EDU 781	3.0 EDUP 781	3.0	
EDUC 609	3.0 (GR) MS Professiona Elective	3.0 (GR) MS Professiona Elective	3.0	
(GR) MS Professional Elective	3.0			
	9	6	6	
Total Credits 230				

*

Students must receive Department permission to pursue the NCOP option. Students will work directly with their advisor to establish a unique plan of study.

**

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Elementary Education, Middle Level (Math/English) BS / Teaching, Learning and Curriculum MS

Major: Elementary Education, Middle Level (Math/English) and Teaching, Learning and Curriculum

Degree Awarded: Bachelor of Science (BS) and Master of Science (MS)

Calendar Type: Quarter

Minimum Required Credits: 225.0

Co-op Options: One Co-op (Five years)

About the Program

The BS/MS in Middle Level Education (4-8) and MS in Teaching Learning and Curriculum offers a flexible, innovative curriculum with a unique

emphasis on creative problem solving and the application of the latest technologies to learning. This accelerated degree program allows candidates to pursue a BS in Education (Middle Level 4-8 Mathematics and English) with Pennsylvania initial state teacher certification and continue for a fifth graduate year to complete the MS in Teaching Learning and Curriculum (Advanced Track).

The BS/MS in Middle Level Mathematics and English Teacher Education and Teaching Learning and Curriculum Advanced track prepares students academically and practically for careers in PK–12 teaching or other educational settings, including capabilities to:

- Demonstrate professional ethics and independent and creative academic best practices that exhibit outstanding leadership, organizational, cross cultural, inter-personal and advocacy skills including the ability to communicate effectively with internal and external groups.
- Understand the changing role of teachers in increasingly diverse societies
- Demonstrate a strong academic background in all subject areas that meet PDE requirements including literacy, language and STEM areas
- Demonstrate the ability to create and maintain a positive and democratic classroom climate for students
- Demonstrate a thorough understanding of child development in their ability to develop and implement learning opportunities that are unique to every child
- Develop creative academic leadership skills with a global perspective on current educational issues, knowledge of best pedagogical practices, tools to effectively integrate technology in curriculum, assessment and instruction, and a strong academic background in all subject areas that meet PDE content requirements.
- Develop competencies to become reflective practitioners who are lifelong learners, who base their practice on theory, research, and developmentally appropriate pedagogy by analyzing, implementing, and evaluating existing and new instructional strategies and practices in a variety of educational institutions/organizations.
- Demonstrate advanced teaching knowledge and skills well beyond that required for initial Pennsylvania certification
- Develop advanced skills 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.
- Have in-depth knowledge of both public and private (non-profit and for-profit) institutions as well as small and large institutions.

The BS program requires that candidates 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 EDEX, EDLT, EDPO, EDUC, and MTED courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program. Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

Admission Requirements

Same as BS in Elementary Education, BSMS application must be submitted during Sophomore year before 120 credits have been completed with cumulative 3.0 GPA to gain acceptance into BS/MS program. Continuation as a BS/MS student in Teaching Learning and Curriculum (Advanced Track) requires maintaining minimum term and cumulative 3.0 GPA.

Degree Requirements

General Education/Content Requirements

ARTH 101	History of Art I	3.0
BIO 100	Applied Cells, Genetics & Physiology	3.0
or BIO 161	General Biology I	
BIO 101	Applied Biological Diversity, Ecology & Evolution	3.0
or BIO 162	General Biology II	
CHEM 111	General Chemistry I	4.0
CIVC 101	Introduction to Civic Engagement	1.0
COM 111	Principles of Communication	3.0
COOP 101	Career Management and Professional Development *	1.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
ENGL 304	Young Adult Fiction	3.0
ENVS 260	Environmental Science and Society	3.0
HIST 201	United States History to 1815	4.0
HIST 275	History of Pennsylvania	3.0
LING 101	Introduction to Linguistics	3.0
MATH 101	Introduction to Analysis I	4.0
or MATH 171	Introduction to Analysis A	
MATH 102	Introduction to Analysis II	4.0
or MATH 172	Introduction to Analysis B	
MATH 107	Probability and Statistics for Liberal Arts	3.0
or MATH 173	Introduction to Analysis C	
MATH 205	Survey of Geometry	3.0
MUSC 130	Introduction to Music	3.0
NFS 100	Nutrition, Foods, and Health	2.0
NFS 101	Introduction to Nutrition & Food	1.0
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	3.0
UNIV T101	The Drexel Experience	1.0
WRIT 225 [WI]	Creative Writing	3.0
or WRIT 301	Writing Poetry	
Pedagogy Requirements		
EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDLT 326	Technology Applications for Learning	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0

EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 326 [WI]	Language Arts Processes	3.0
EDUC 355	Social Studies Teaching Methods	3.0
EDUC 360	English/Language Arts Teaching Methods for the Middle Years	1.5
EDUC 361	Middle Years Science Methods	1.5
EDUC 362	Middle Years Social Studies Methods	1.5
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
MTED 363	Middle Years Mathematics Methods (4-8)	1.5
MTED 418	Mathematics Methods and Content	3.0

Student Teaching Experience

EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0
Free Electives		13.0

MS in TLC Core

EDAM 714	Instructional and Curriculum Leadership (Take EDLS 550 if pursuing Reading Specialist Concentration)	3.0
or EDLS 550	Theories of Reading and Writing	
EDLT 504	Learning Engineering	3.0
EDUC 524	Current Research in Curriculum & Instruction (Take EDLS 575 if pursuing Reading Specialist Concentration)	3.0
or EDLS 575	Responding to Children's and Young Adult Literature	
EDUC 530	Advanced Techniques in Instruction & Assessment	3.0
EDUC 609	Language & Culture in Education (Take EDLS 555 if pursuing Reading Specialist Concentration)	3.0
or EDLS 555	Understanding Literacy through Sociocultural Perspectives	

Policy, Law & Organization Courses (Choose 2)

6.0
Select two courses in Education Policy, Law & Organization EDPO or EDAM (500-799). Reading Specialist Concentration students enroll in EDLS 570 and EDLS 650.

EDAM 705	School Law and Politics	
EDCR 518	Evidence-Based Evaluation	
EDLS 570	Literacy and Evaluation	
EDLS 650	Designing a Literacy Program	
EDPO 622	Foundations of Education Policy	

MS in TLC Capstone Sequence

EDU 780	Capstone Research	3.0
EDU 781	Masters Capstone I	3.0
EDUP 781	Practitioner Capstone Course II	3.0

MS Professional Elective or Concentration **

15.0

Candidates may select any combination of the following for 15.0 credits: ABA, CRTV, EDAM, EDEX, EDGI, EDLS, EDLT, EDPO, EDUC, EHRD, ELL, ENTP, ESTM, or MTED (500-799 level), or candidates select a formal concentration. (See formal concentration options below)

Autism Spectrum Disorders

EDEX 555	Teaching Students with Autism Spectrum Disorder	
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	

Human Resource Development

EHRD 500	Foundations of Human Resources Development	
EHRD 602	Coaching and Mentoring for Sustainable Learning	
EHRD 611	Organization Development and Change	

EHRD 612	Strategic Human Resource Development
EHRD 660	Principles of Adult Learning

Creativity and Innovation

CRTV 501	Foundations in Creativity
CRTV 502	Tools and Techniques in Creativity
CRTV 503	Creativity in the Workplace
CRTV 620	Research Methods and Assessment of Creative and Innovative Thinking
CRTV 630	Global Perspectives on Creativity

Educational Policy

EDPO 622	Foundations of Education Policy
EDPO 624	The Shaping of American Education Policy: Global Forces, Interest Groups, and Politics
EDPO 628	American Educational Policy and U.S. Competitiveness
EDPO 632	Ethics in Educational Policy Making
EDPO 636	Access & Equity in Educational Policy Making

Global & International Education

EDGI 506	Comparative Higher Education Systems
EDGI 510	Culture, Society & Education in Comparative Perspective
EDGI 522	Education for Global Citizenship, Sustainability, and Social Justice
EDGI 524	Measuring the World: Education and National Development
EDGI 552	Gender, Education, and International Organizations

Higher Education

EDGI 506	Comparative Higher Education Systems
EDHE 501	Foundations of Higher Education and Governance
EDHE 531	Legal Issues & Ethics in Higher Education
EDHE 662	Critical Issues in Student Affairs
EHRD 660	Principles of Adult Learning

Learning Technologies

EDLT 503	The Learning Sciences
EDLT 504	Learning Engineering
EDLT 543	Play & Learning in a Participatory Culture
or EDLT 59: Learning Analytics: Lenses on students, teaching, and curriculum enactment	
EDLT 551	Instructional Design Methods
ELL 503	Teaching and Learning Issues in E-Learning

Multisensory Reading Instruction Level 1

EDLS 620	Applied Methods in Multisensory Reading Instruction
EDLS 621	Multisensory Reading Instruction
EDLS 622	Basic Word Study I
EDLS 623	Basic Word Study II
EDLS 624	Multisensory Practicum I
EDLS 625	Multisensory Practicum II
EDLS 626	Multisensory Practicum III

Professional Elective (minimum 3.0 credits) ***

Reading Specialist Certification

EDLS 560	Reading and Writing in the Content Areas (7-12)
EDLS 565	Constructing Meaning through Reading and Writing
EDLS 620	Applied Methods in Multisensory Reading Instruction
EDLS 622	Basic Word Study I
EDLS 623	Basic Word Study II
EDLS 624	Multisensory Practicum I
EDLS 625	Multisensory Practicum II
EDLS 626	Multisensory Practicum III

Teaching English as a Second Language Certification

EDUC 602	Language Learning & Teaching
EDUC 604	Structure and Sound System of English
EDUC 606	Design and Assessment
EDUC 608	The Intercultural Learner
Professional Elective (minimum 3 credits) ***	

Social Emotional Behavioral Wellness

EDEX 580	Social Emotional Wellness and Evidence-Based Preventative School Practices
EDEX 581	Understanding Social Emotional Disorders
EDEX 582	Evidence-Based School Interventions and Trauma Informed Education/Care
EDEX 583	Collaboration and Community Based Practices to Promote Social Emotion Wellness
Professional Elective (minimum 3 credits) ***	

Total Credits 225.0*****

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Candidates may opt for a formal concentration or a Customized Concentration which may include coursework from other Drexel academic departments in consultation with an academic advisor. Sample customized concentrations might include:

- Educational Administration
- Evaluation & Assessment
- Instructional Design
- Leadership in Educational Settings
- Learning in Game-Based Environments
- Special Education Law and Process
- Special Education Leadership
- Urban Education

Complete 3.0 graduate elective credits (500-799) in EDUC, EDEX, EDGI, EDAM, EHRD, EDHE, CRTV, MTED, EDLT, EDLS, ELL, ABA, EDPO, ENTP or ESTM.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4+1, 1 co-op (Accelerated program completed in 5 years)*

Students complete undergraduate requirements in four years, then convert to graduate status in the fifth and final year.

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
BIO 100 or 161	3.0 CIVC 101	1.0 EDEX 142	3.0 VACATION	
EDUC 101	3.0 COM 111	3.0 EDUC 108	1.0	
EDUC 106	1.0 EDUC 107	1.0 ENGL 103 or 113	3.0	
EDUC 123	3.0 ENGL 102 or 112	3.0 ENVS 260	3.0	
ENGL 101 or 111	3.0 MATH 102 or 172	4.0 LING 101	3.0	
MATH 101 or 171	4.0 MUSC 130	3.0 MATH 107 or 173	3.0	
UNIV T101	1.0			
	18	15	16	0

Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
BIO 101 or 162	3.0 EDPO 312	3.0 EDEX 368	3.0 CHEM 111	4.0
COOP 101*	1.0 EDUC 306	3.0 EDUC 216	3.0 EDLT 325	3.0
EDEX 344	3.0 EDUC 365	3.0 EDUC 308	3.0 EDUC 305	1.0
EDUC 205	1.0 PHYS 151	3.0 MATH 205	3.0 PSY 320	3.0
HIST 275	3.0 WRIT 225 or 301	3.0 MTED 418	3.0 SOC 335	3.0
PSY 101	3.0			
(UG) Free Elective	4.0			
	18	15	15	14

Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDLT 326	3.0 ECON 201	4.0
EDUC 361	1.5 EDUC 360	1.5 EDUC 316	3.0 EDUC 324	3.0
MTED 363	1.5 EDUC 362	1.5 EDUC 326	3.0 ENGL 304	3.0
		EDUC 355	3.0 PSY 330	3.0
		EDAM 714	3.0 (GR) MS Elective	3.0
		(GR) MS Elective	3.0	
	3	3	18	16

Fourth Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 409	9.0 EDUC 410	9.0 ARTH 101	3.0 Student classified as Graduate Student	
(UG) Free Elective	3.0 (UG) Free Elective	3.0 EDUC 405	1.0 EDAM 705	3.0
		HIST 201	4.0 EDUC 530	3.0
		NFS 100	2.0 (GR) MS Elective	3.0
		NFS 101	1.0	
		(UG) Free Elective	3.0	
		EDUC 524	3.0	
	12	12	17	9

Fifth Year

Fall	Credits Winter	Credits Spring	Credits
EDUC 609	3.0 EDLT 504	3.0 EDUP 781	3.0
EDPO 622 or EDCR 518	3.0 EDU 781	3.0 (GR) MS Elective	3.0
EDU 780	3.0 (GR) MS Elective	3.0	
	9	9	6
Total Credits 225			

*

Students must receive Department permission to pursue the NCOP option. Students will work directly with their advisor to establish a unique plan of study.

**

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COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Education Faculty

Jennifer Adams, EdD (*Harvard University*). Associate Professor. Comparative and international education; Poverty and education; Child welfare; Educational policy.

Ayana Allen, PhD (*Texas A&M University*). Assistant Professor. Urban education; Identity construction in school contexts; Urban school transformation.

Kristen Betts, EdD (*George Washington University*). Clinical Professor. Higher education administration and governance, online blended education, instructional design and educational technology, program assessment and evaluation.

W. Edward Bureau, PhD (*University of Pennsylvania*). Associate Clinical Professor. Leadership, supervision, and capacity development.

Jamie Callahan, EdD (*George Washington University*). Clinical Professor. Leadership; Sociological explorations of emotions occurring in organizational contexts; Organizational development; Contextual issues confronting organizations, such as organizational leadership, organizational culture, and communities of practice.

Holly Carpenter, PhD (*Arizona State University*). Assistant Clinical Professor. Higher education policy development and implementation, community college/university articulation, and online education.

José Luis Chávez, EdD (*University of Southern California*). Clinical Professor. Higher education leadership and administration.

Rebecca Clothey, PhD (*University of Pittsburgh*). Assistant Professor. Comparative and international education, education of ethnic and linguistic minorities, sociology of education.

James Connell, PhD (*Louisiana State University*) *Clinical Director and Research Fellow, A.J. Drexel Autism Institute*. Associate Professor. Identifying the variables that influence adult behavior change in community settings; autism intervention; widespread dissemination of evidence-based interventions in school and community settings.

D. Brent Edwards, PhD (*University of Maryland*). Assistant Clinical Professor. Global and international education

Salvatore V. Falletta, EdD (*North Carolina State University*). Associate Clinical Professor. Human Resource intelligence (i.e., HR research and analytics practices); HRD assessment, measurement, and evaluation models and taxonomies; organizational diagnostic models; web-based employee and organizational survey methods, and computational modeling.

Aroutis N. Foster, PhD (*Michigan State University*). Associate Professor. Educational psychology and educational technology, especially the following: Motivation; Technological Pedagogical Content Knowledge (TPACK); Immersive Interactive Digital Environments (simulation, games, virtual realities.

Kathy Geller, PhD (*Fielding Graduate University*). Assistant Clinical Professor. Educational leadership and management.

Rajashi Ghosh, PhD (*University of Louisville, Kentucky*). Associate Professor. Mentoring and leader development, workplace Incivility, workplace learning and development.

Roger Geertz Gonzalez, PhD (*Pennsylvania State University*). Associate Clinical Professor. Civic engagement, college student identity development, indigenous higher education, comparative higher education access policies.

John M. Gould, PhD (*University of Pittsburgh*) *Harrisburg EdD Educational Leadership & Change Program*. Associate Clinical Professor. Change leadership, curriculum re-design, the impact of technology on learning.

Mary Jo Grdina, PhD (*Case Western Reserve University*). Associate Clinical Professor. Undergraduate studies, science education, curriculum design.

Dominic F. Gullo, PhD (*Indiana University*) *Associate Dean of Research*. Professor. Studying the relative and long-range effects of early schooling experiences in prekindergarten and kindergarten on children's achievement and social adaptation to school routine.

Penny Hammrich, PhD (*University of Minnesota*) *Associate Dean for Graduate Studies*. Professor. Urban education; science education; genetics; gender equity; science knowledge for conceptual teaching; sport science.

Paul Harrington, PhD (*University of Massachusetts, Boston*) *Director, Center for Labor Markets and Policy*. Professor. Teen and young adult job access; economic outlook, college labor market; workforce development, planning, and development; vocational rehabilitation and job market transition.

Elizabeth Haslam, PhD (*University of Pennsylvania*). Associate Clinical Professor. Educational field coordinator, instructional design, qualitative evaluation, writing across the curriculum.

Michael J. Haslip, PhD (*Old Dominion University*). Assistant Professor. Early childhood education, social and emotional learning, child guidance strategies, effects of public pre-school attendance.

Marlene Hilkowitz, M.Ed (*Temple University*). Assistant Clinical Professor. Science education; Curriculum development; Student engagement

Deanna Hill, JD, PhD (*University of Pittsburgh*). Assistant Clinical Professor. Higher education, international education, education law, education policy

Erin Horvat, PhD (*University of California, Los Angeles*) *Associate Dean for Academic Affairs*. Professor. Urban education, access and equity, high school dropout, parent involvement/family involvement, community engagement in research.

Jennifer Katz-Buonincontro, PhD (*University of Oregon*). Associate Professor. Educational administration, leadership development, survey & instrument design.

Kristine Kelly, PhD (*University of Wisconsin, Madison*). Assistant Clinical Professor. Sociology of gender and development; anthropology of policy; comparative and international education; qualitative research methods; Vietnam and Southeast Asia.

Valerie Klein, PhD (*Amherst College*). Assistant Clinical Professor. Mathematics learning and teaching; teacher's use of formative assessment in mathematics; creating opportunities for rich problem solving in the classroom; examining teachers growth and change; qualitative research methods.

Vera Lee, EdD (*University of Pennsylvania*). Assistant Clinical Professor. Practitioner Research in online courses to explore inservice/preservice teachers' emerging understandings about issues of diversity; the development of information/digital literacies of urban youth; English language learners.

Bruce Levine, JD (*New York University*). Assistant Clinical Professor. Educational policy, school law, public-private partnerships, intersection of business and education.

Kristine Lewis-Grant, PhD (*Temple University*). Associate Clinical Professor. Experiences of students of African descent at predominantly white colleges and universities, college access and college student development, youth civic engagement in urban school reform, qualitative research and evaluation.

William Lynch, PhD (*University of Maryland*). Professor. Curriculum and educational leadership, educational technology, distance learning policy development, higher and adult education.

Constance Lyttle, PhD, JD (*University of Pittsburgh, Duquesne University*). Associate Clinical Professor. Legal rights of gifted and talented children and children with disabilities; inclusive education of exceptional children; special education mediation; special education IEP/IFSP facilitation; resolution session facilitation

Kenneth Mawritz, PhD (*University of Pittsburgh*). Assistant Clinical Professor. Educational administration

Joyce Pittman, PhD (*Iowa State University of Science and Technology*). Associate Clinical Professor. Curriculum and instruction K-16; teaching English as a foreign language (TEFL); instructional design business education and administration; industrial and career technology; oral and written communication; research methodology; instructional and assistive technology assessment; online learning pedagogy

Kathleen Provinzano, PhD (*Marywood University*). Associate Clinical Professor. Educational administration.

Fredricka K. Reisman, PhD (*Syracuse University*) *Director of the Torrance Center for Creativity and Innovation*. Professor. Mathematics education,

learning mathematics, mathematics pedagogy, teacher education, heuristic diagnostic learning and teaching, theory and research in creativity and applied creativity.

Lori Severino, EdD (*Neumann University*). Assistant Clinical Professor. Special education, differentiated instruction, reading, Wilson language, multi-sensory instruction, reading comprehension, assessment, adolescent literacy.

Jason Silverman, PhD (*Vanderbilt University*). Associate Professor. Teaching and learning of advanced mathematical ideas (algebra and calculus); improving teachers' ability to orchestrate and sustain inquiry-based and discussion-based instruction; technology in mathematics education.

Brian Smith, PhD (*Northwestern University*). Professor. Design of computer-based learning environments; Human-computer interaction; Design sciences.

Toni A. Sondergeld, PhD (*University of Toledo*). Associate Professor. Cognitive and affective assessment development; program/grant evaluation; high stakes testing measurement; STEM education; urban education

Nancy Butler Songer, PhD (*University of California, Davis*) Dean, School of Education. Distinguished Professor. STEM education, urban education, educational assistance

Mary Jean Tecce DeCarlo, EdD (*University of Pennsylvania*). Assistant Clinical Professor. Early literacy development, learning differences, knowledge construction, urban education.

Sarah P. Ulrich, EdD (*Saint Joseph's University*). Associate Clinical Professor. Emphasis in cross-cultural, language and academic development.

Sheila Vaidya, PhD (*Temple University*). Professor. Educational psychology, school psychology, research design.

Christina Vorndran, PhD (*Louisiana State University*). Associate Clinical Professor. Behavior analysis, single subject research methods, functional analysis

Elementary Education, Middle Level (Science/English) BS / Teaching, Learning & Curriculum MS

Major: Elementary Education, Middle Level (Science/English) and Teaching, Learning and Curriculum

Degree Awarded: Bachelor of Science (BS) and Master of Science (MS)

Calendar Type: Quarter

Minimum Required Credits: 225.0

Co-op Options: One Co-op (Five years)

About the Program

The BS/MS in Middle Level Education (4-8) and MS in Teaching Learning and Curriculum offers a flexible, innovative curriculum with a unique emphasis on creative problem solving and the application of the latest technologies to learning. This accelerated degree program allows candidates to pursue a BS in Education (Middle Level 4-8 Science and English) with Pennsylvania initial state teacher certification and continue

for a fifth graduate year to complete the MS in Teaching Learning and Curriculum (Advanced Track).

The BS/MS in Middle Level Science and English Teacher Education and Teaching Learning and Curriculum Advanced track prepares students academically and practically for careers in PK–12 teaching or other educational settings, including capabilities to:

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- Understand the changing role of teachers in increasingly diverse societies
- Demonstrate a strong academic background in all subject areas that meet PDE requirements including literacy, language and STEM areas
- Demonstrate the ability to create and maintain a positive and democratic classroom climate for students
- Demonstrate a thorough understanding of child development in their ability to develop and implement learning opportunities that are unique to every child
- Develop creative academic leadership skills with a global perspective on current educational issues, knowledge of best pedagogical practices, tools to effectively integrate technology in curriculum, assessment and instruction, and a strong academic background in all subject areas that meet PDE content requirements.
- Develop competencies to become reflective practitioners who are lifelong learners, who base their practice on theory, research, and developmentally appropriate pedagogy by analyzing, implementing, and evaluating existing and new instructional strategies and practices in a variety of educational institutions/organizations.
- Demonstrate advanced teaching knowledge and skills well beyond that required for initial Pennsylvania certification
- Develop advanced skills 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.
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The BS program requires that candidates 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 EDEX, EDLT, EDPO, EDUC, ESTM and MTED courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program. Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

Admission Requirements

Same as BS in Elementary Education, BSMS application must be submitted during Sophomore year before 120 credits have been completed with cumulative 3.0 GPA to gain acceptance into BS/MS program. Continuation as a BS/MS student in Teaching Learning and

Curriculum (Advanced Track) requires maintaining minimum term and cumulative 3.0 GPA

Degree Requirements

General Education/Content Requirements

ARTH 101	History of Art I	3.0
BIO 100	Applied Cells, Genetics & Physiology	3.0
or BIO 161	General Biology I	
BIO 101	Applied Biological Diversity, Ecology & Evolution	3.0
or BIO 162	General Biology II	
CHEM 111	General Chemistry I	4.0
CIVC 101	Introduction to Civic Engagement	1.0
COM 111	Principles of Communication	3.0
COOP 101	Career Management and Professional Development *	1.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
ENGL 304	Young Adult Fiction	3.0
ENVS 260	Environmental Science and Society	3.0
Select one of the following		4.0
HIST 201	United States History to 1815	
or HIST 202	United States History, 1815-1900	
or HIST 203	United States History since 1900	
HIST 275	History of Pennsylvania	3.0
LING 101	Introduction to Linguistics	3.0
MATH 101	Introduction to Analysis I	4.0
or MATH 171	Introduction to Analysis A	
MATH 102	Introduction to Analysis II	4.0
or MATH 172	Introduction to Analysis B	
MATH 107	Probability and Statistics for Liberal Arts	3.0
or MATH 173	Introduction to Analysis C	
MUSC 130	Introduction to Music	3.0
NFS 100	Nutrition, Foods, and Health	2.0
NFS 101	Introduction to Nutrition & Food	1.0
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	3.0
UNIV T101	The Drexel Experience	1.0
WRIT 225 [WI]	Creative Writing	3.0
or WRIT 301	Writing Poetry	
Free electives		13.0
Pedagogy Requirements		
EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDLT 326	Technology Applications for Learning	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0

EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 306	Assessment of Young Children I	3.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 326 [WI]	Language Arts Processes	3.0
EDUC 355	Social Studies Teaching Methods	3.0
EDUC 360	English/Language Arts Teaching Methods for the Middle Years	1.5
EDUC 361	Middle Years Science Methods	1.5
EDUC 362	Middle Years Social Studies Methods	1.5
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
ESTM 342	Teaching Engineering Concepts to Children	3.0
MTED 363	Middle Years Mathematics Methods (4-8)	1.5
MTED 418	Mathematics Methods and Content	3.0

Student Teaching Experience

EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0

MS in TLC Core

EDAM 714	Instructional and Curriculum Leadership (Take EDLS 550 if pursuing Reading Specialist Concentration)	3.0
or EDLS 550	Theories of Reading and Writing	
EDLT 504	Learning Engineering	3.0
EDUC 524	Current Research in Curriculum & Instruction (Take EDLS 575 if pursuing Reading Specialist Concentration)	3.0
or EDLS 575	Responding to Children's and Young Adult Literature	
EDUC 530	Advanced Techniques in Instruction & Assessment	3.0
EDUC 609	Language & Culture in Education (Take EDLS 555 if pursuing Reading Specialist Concentration)	3.0
or EDLS 555	Understanding Literacy through Sociocultural Perspectives	

Policy, Law & Organization Courses (Choose 2) 6.0

Select two courses in Education Policy, Law & Organization EDPO or EDAM (500-799). Reading Specialist Concentration students enroll in EDLS 570 and EDLS 650.

EDAM 705	School Law and Politics	
EDCR 518	Evidence-Based Evaluation	
EDLS 570	Literacy and Evaluation	
EDLS 650	Designing a Literacy Program	
EDPO 622	Foundations of Education Policy	

MS in TLC Capstone Sequence

EDU 780	Capstone Research	3.0
EDU 781	Masters Capstone I	3.0
EDUP 781	Practitioner Capstone Course II	3.0

MS Professional or Concentration Elective ** 15.0

Candidates may select any combination of the following for 15.0 credits: ABA, CRTV, EDAM, EDEX, EDGI, EDLS, EDLT, EDPO, EDUC, EHRD, ELL, ENTP, ESTM, or MTED (500-799 level), or candidates select a formal concentration. (See formal concentration options below)

Autism Spectrum Disorders

EDEX 555	Teaching Students with Autism Spectrum Disorder	
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	

Human Resource Development

EHRD 500	Foundations of Human Resources Development	
EHRD 602	Coaching and Mentoring for Sustainable Learning	
EHRD 611	Organization Development and Change	
EHRD 612	Strategic Human Resource Development	
EHRD 660	Principles of Adult Learning	

Creativity and Innovation

CRTV 501	Foundations in Creativity
CRTV 502	Tools and Techniques in Creativity
CRTV 503	Creativity in the Workplace
CRTV 620	Research Methods and Assessment of Creative and Innovative Thinking
CRTV 630	Global Perspectives on Creativity

Educational Policy

EDPO 622	Foundations of Education Policy
EDPO 624	The Shaping of American Education Policy: Global Forces, Interest Groups, and Politics
EDPO 628	American Educational Policy and U.S. Competitiveness
EDPO 632	Ethics in Educational Policy Making
EDPO 636	Access & Equity in Educational Policy Making

Global & International Education

EDGI 506	Comparative Higher Education Systems
EDGI 510	Culture, Society & Education in Comparative Perspective
EDGI 522	Education for Global Citizenship, Sustainability, and Social Justice
EDGI 524	Measuring the World: Education and National Development
EDGI 552	Gender, Education, and International Organizations

Higher Education

EDGI 506	Comparative Higher Education Systems
EDHE 501	Foundations of Higher Education and Governance
EDHE 531	Legal Issues & Ethics in Higher Education
EDHE 662	Critical Issues in Student Affairs
EHRD 660	Principles of Adult Learning

Learning Technologies

EDLT 503	The Learning Sciences
EDLT 504	Learning Engineering
EDLT 543	Play & Learning in a Participatory Culture
or EDLT 591 Learning Analytics: Lenses on students, teaching, and curriculum enactment	
EDLT 551	Instructional Design Methods
ELL 503	Teaching and Learning Issues in E-Learning

Multisensory Reading Instruction Level 1

EDLS 620	Applied Methods in Multisensory Reading Instruction
EDLS 621	Multisensory Reading Instruction
EDLS 622	Basic Word Study I
EDLS 623	Basic Word Study II
EDLS 624	Multisensory Practicum I
EDLS 625	Multisensory Practicum II
EDLS 626	Multisensory Practicum III
Professional Elective (minimum 3.0 credits) ***	

Reading Specialist Certification

EDLS 560	Reading and Writing in the Content Areas (7-12)
EDLS 565	Constructing Meaning through Reading and Writing
EDLS 620	Applied Methods in Multisensory Reading Instruction
EDLS 622	Basic Word Study I
EDLS 623	Basic Word Study II
EDLS 624	Multisensory Practicum I
EDLS 625	Multisensory Practicum II
EDLS 626	Multisensory Practicum III

Teaching English as a Second Language Certification

EDUC 602	Language Learning & Teaching
EDUC 604	Structure and Sound System of English
EDUC 606	Design and Assessment
EDUC 608	The Intercultural Learner
Professional Elective (minimum 3 credits) ***	

Social Emotional Behavioral Wellness

EDEX 580	Social Emotional Wellness and Evidence-Based Preventative School Practices
EDEX 581	Understanding Social Emotional Disorders

EDEX 582 Evidence-Based School Interventions and Trauma Informed Education/Care

EDEX 583 Collaboration and Community Based Practices to Promote Social Emotion Wellness

Professional Elective (minimum 3 credits) ***

Total Credits**225.0*******

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Candidates may opt for a formal concentration or a **Customized Concentration** which may include course work from other Drexel academic departments in consultation with an academic advisors. Sample customized concentrations might include:

- Educational Administration
- Evaluation & Assessment
- Instructional Design
- Leadership in Educational Settings
- Learning in Game-Based Environments
- Special Education Law and Process
- Special Education Leadership
- Urban Education

Complete 3.0 graduate elective credits (500-799) in EDUC, EDEX, EDGI, EDAM, EHRD, EDHE, CRTV, MTED, EDLT, EDLS, ELL, ABA, EDPO, ENTP or ESTM.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4+1, 1 co-op (Accelerated program completed in 5 years)*

Students complete undergraduate requirements in four years, then convert to graduate status in the fifth and final year.

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
BIO 100 or 161	3.0 CIVC 101	1.0 EDEX 142	3.0 VACATION	
EDUC 101	3.0 COM 111	3.0 EDUC 108	1.0	
EDUC 106	1.0 EDUC 107	1.0 EDUC 123	3.0	
ENGL 101 or 111	3.0 ENGL 102 or 112	3.0 ENGL 103 or 113	3.0	
MATH 101 or 171	4.0 MATH 102 or 172	4.0 LING 101	3.0	
UNIV T101	1.0 MUSC 130	3.0 MATH 107 or 173	3.0	
	15	15	16	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP 101**	1.0 BIO 101	3.0 EDEX 368	3.0 CHEM 111	4.0
EDEX 344	3.0 EDPO 312	3.0 EDUC 305	1.0 EDLT 325	3.0
EDUC 205	1.0 EDUC 216	3.0 EDUC 308	3.0 ENVS 260	3.0
EDUC 362	1.5 EDUC 306	3.0 MTED 418	3.0 HIST 275	3.0
EDUC 365	3.0 PHYS 151	3.0 SOC 335	3.0 (UG) Free Elective	4.0
HIST 201	4.0 WRIT 225	3.0		
PSY 101	3.0			
MTED 363	1.5			
	18	18	13	17
Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDLT 326	3.0 ECON 201	4.0
EDUC 360	1.5	EDUC 316	3.0 EDUC 324	3.0
EDUC 361	1.5	EDUC 326	3.0 EDUC 355	3.0
		EDUC 355	3.0 ENGL 304	3.0
		ESTM 342	3.0 (GR) MS elective	3.0
		EDAM 714	3.0	
	3	0	18	16
Fourth Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 409	9.0 EDUC 410	9.0 ARTH 101	3.0 Student classified as Graduate Student	
EDUC 405	1.0 (UG) Free Elective	3.0 NFS 100	2.0 EDAM 705	3.0
(UG) Free Elective	2.0	NFS 101	1.0 EDUC 524	3.0
		PSY 330	3.0 (GR) MS Elective	3.0
		(UG) Free Elective	4.0	
		(GR) MS Elective	3.0	
	12	12	16	9

Fifth Year			
Fall	Credits Winter	Credits Spring	Credits
EDU 780	3.0 EDLT 504	3.0 EDPO 622 or EDCR 518	3.0
EDUC 609	3.0 EDU 781	3.0 EDUP 781	3.0
(GR) MS Elective	3.0 (GR) MS Elective	3.0 (GR) MS Elective	3.0
	9	9	9
Total Credits 225			

*

Students must receive Department permission to pursue the NCOP option. Students will work directly with their advisor to establish a unique plan of study.

**

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Secondary Education Biology BS / Teaching, Learning and Curriculum (Advanced Track) MS

Major: Teacher Education, Secondary Biology; Teaching, Learning and Curriculum

Degree Awarded: Bachelor of Science (BS) and Master of Science (MS)

Calendar Type: Quarter

Minimum Required Credits: 234.0

Co-op Options: One Co-op (Five years)

About the Program

The BS/MS in Teacher Education with Secondary Education and MS in Teaching Learning and Curriculum offers a flexible, innovative curriculum with a unique emphasis on creative problem solving and the application of the latest technologies to learning. This accelerated degree program allows candidates to pursue a BS in Education (Secondary/Biology) with Pennsylvania initial state teacher certification and continue for a fifth graduate year to complete the MS in Teaching Learning and Curriculum (Advanced Track).

The BS/MS in Teacher Education and Teaching Learning and Curriculum Advanced track prepares students academically and practically for careers in PK–12 teaching or other educational settings, including capabilities to:

- Demonstrate professional ethics and independent and creative academic best practices that exhibit outstanding leadership, organizational, cross cultural, inter-personal and advocacy skills including the ability to communicate effectively with internal and external groups.
- Understand the changing role of teachers in increasingly diverse societies
- Demonstrate a strong academic background in all subject areas that meet PDE requirements including literacy, language and STEM areas
- Demonstrate the ability to create and maintain a positive and democratic classroom climate for students

- Demonstrate a thorough understanding of child development in their ability to develop and implement learning opportunities that are unique to every child
- Develop creative academic leadership skills with a global perspective on current educational issues, knowledge of best pedagogical practices, tools to effectively integrate technology in curriculum, assessment and instruction, and a strong academic background in all subject areas that meet PDE content requirements.
- Develop competencies to become reflective practitioners who are lifelong learners, who base their practice on theory, research, and developmentally appropriate pedagogy by analyzing, implementing, and evaluating existing and new instructional strategies and practices in a variety of educational institutions/organizations.
- Demonstrate advanced teaching knowledge and skills well beyond that required for initial Pennsylvania certification
- Develop advanced skills 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.
- Have in-depth knowledge of both public and private (non-profit and for-profit) institutions as well as small and large institutions.

The BS program requires that candidates 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 EDEX, EDLT, EDPO, and EDUC courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program. Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

Admission Requirements

Same as BS in Elementary Education, BSMS application must be submitted during Sophomore year before 120 credits have been completed with cumulative 3.0 GPA to gain acceptance into BS/MS program. Continuation as a BS/MS student in Teaching Learning and Curriculum (Advanced Track) requires maintaining minimum term and cumulative 3.0 GPA.

Degree Requirements

Degree Requirements

CIVC 101	Introduction to Civic Engagement	1.0
COOP 101	Career Management and Professional Development *	1.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
HIST 289	History of Science: Enlightenment to Modernity	4.0
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	1.0

Science Requirements

BIO 131 & BIO 134	Cells and Biomolecules and Cells and Biomolecules Lab	5.0
BIO 132 & BIO 135	Genetics and Evolution and Genetics and Evolution Lab	5.0
BIO 133 & BIO 136	Physiology and Ecology and Anatomy and Ecology Lab	5.0
BIO 201	Human Physiology I	4.0
BIO 214	Principles of Cell Biology	4.0
BIO 215	Techniques in Cell Biology	3.0
BIO 218	Principles of Molecular Biology	4.0
BIO 219 [WI]	Techniques in Molecular Biology	3.0
BIO 228	Evolutionary Biology & Human Health	3.0
BIO 306	Biochemistry Laboratory	2.0
BIO 373	Developmental Biology	3.0
BIO 374	Developmental Biology Lab	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	Physiological and Population Ecology	3.0
PHYS 152	Introductory Physics I	4.0
PHYS 153	Introductory Physics II	4.0

Pedagogy Requirements

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDLT 326	Technology Applications for Learning	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 315	Secondary Science Teaching Methods	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0

Student Teaching Experience

EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0

MS in TLC Core

EDAM 714	Instructional and Curriculum Leadership (Take EDLS 550 if pursuing Reading Specialist Concentration)	5.0
or EDLS 550	Theories of Reading and Writing	
EDLT 504	Learning Engineering	3.0
EDUC 524	Current Research in Curriculum & Instruction (Take EDLS 575 if pursuing Reading Specialist Concentration)	3.0
or EDLS 575	Responding to Children's and Young Adult Literature	

EDUC 530	Advanced Techniques in Instruction & Assessment	
EDUC 609	Language & Culture in Education (Take EDLS 555 if pursuing Reading Specialist Concentration)	
or EDLS 555 Understanding Literacy through Sociocultural Perspectives		
Policy, Law & Organization Courses (Choose 2)		6.0
Select two courses in Education Policy, Law & Organization. Reading Specialist Concentration students enroll in EDLS 570 and EDLS 650.		
EDAM 705	School Law and Politics	
EDCR 518	Evidence-Based Evaluation	
EDLS 570	Literacy and Evaluation	
EDLS 650	Designing a Literacy Program	
EDPO 620	Education Policy: Concepts, Issues, and Applications	
MS in TLC Capstone Sequence		
EDU 780	Capstone Research	3.0
EDU 781	Masters Capstone I	3.0
EDUP 781	Practitioner Capstone Course II	3.0
MS Professional or Concentration Elective **		
Candidates may select any combination of the following for 15.0 credits: EDUC, EDEX, EDGI, EDAM, EHRD, CRTV, MTED, EDLT, EDLS, ELL, ABA, EDPO, ENTP or ESTM (500-799 level), or candidates select a formal concentration. Formal concentration option include:		15.0
Autism Spectrum Disorders		
EDEX 555	Teaching Students with Autism Spectrum Disorder	
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	
Human Resource Development		
EHRD 500	Foundations of Human Resources Development	
EHRD 602	Coaching and Mentoring for Sustainable Learning	
EHRD 611	Organization Development and Change	
EHRD 612	Strategic Human Resource Development	
EHRD 660	Principles of Adult Learning	
Creativity and Innovation		
CRTV 501	Foundations in Creativity	
CRTV 502	Tools and Techniques in Creativity	
CRTV 503	Creativity in the Workplace	
CRTV 620	Research Methods and Assessment of Creative and Innovative Thinking	
CRTV 630	Global Perspectives on Creativity	
Educational Policy		
EDPO 622	Foundations of Education Policy	
EDPO 624	The Shaping of American Education Policy: Global Forces, Interest Groups, and Politics	
EDPO 628	American Educational Policy and U.S. Competitiveness	
EDPO 632	Ethics in Educational Policy Making	
EDPO 636	Access & Equity in Educational Policy Making	
Global & international Education		
EDGI 506	Comparative Higher Education Systems	
EDGI 510	Culture, Society & Education in Comparative Perspective	
EDGI 522	Education for Global Citizenship, Sustainability, and Social Justice	
EDGI 524	Measuring the World: Education and National Development	
EDGI 552	Gender, Education, and International Organizations	
Higher Education		
EDGI 506	Comparative Higher Education Systems	
EDHE 501	Foundations of Higher Education and Governance	
EDHE 531	Legal Issues & Ethics in Higher Education	
EDHE 662	Critical Issues in Student Affairs	
EHRD 660	Principles of Adult Learning	
Learning Technologies		
EDLT 503	The Learning Sciences	

EDLT 504	Learning Engineering	
EDLT 543	Play & Learning in a Participatory Culture	
or EDLT 59 Learning Analytics: Lenses on students, teaching, and curriculum enactment		
EDLT 551	Instructional Design Methods	
ELL 503	Teaching and Learning Issues in E-Learning	
Multisensory Reading Instruction Level 1		
EDLS 620	Applied Methods in Multisensory Reading Instruction	
EDLS 621	Multisensory Reading Instruction	
EDLS 622	Basic Word Study I	
EDLS 623	Basic Word Study II	
EDLS 624	Multisensory Practicum I	
EDLS 625	Multisensory Practicum II	
EDLS 626	Multisensory Practicum III	
Professional Elective (minimum 3.0 credits) ***		
Reading Specialist Certification		
EDLS 560	Reading and Writing in the Content Areas (7-12)	
EDLS 565	Constructing Meaning through Reading and Writing	
EDLS 620	Applied Methods in Multisensory Reading Instruction	
EDLS 622	Basic Word Study I	
EDLS 623	Basic Word Study II	
EDLS 624	Multisensory Practicum I	
EDLS 625	Multisensory Practicum II	
EDLS 626	Multisensory Practicum III	
Teaching English as a Second Language Certification		
EDUC 602	Language Learning & Teaching	
EDUC 604	Structure and Sound System of English	
EDUC 606	Design and Assessment	
EDUC 608	The Intercultural Learner	
Professional Elective (minimum 3 credits) ***		
Social Emotional Behavioral Wellness		
EDEX 580	Social Emotional Wellness and Evidence-Based Preventative School Practices	
EDEX 581	Understanding Social Emotional Disorders	
EDEX 582	Evidence-Based School Interventions and Trauma Informed Education/Care	
EDEX 583	Collaboration and Community Based Practices to Promote Social Emotion Wellness	
Professional Elective (minimum 3 credits) ***		
Total Credits		234.0

*

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

**

Candidates may opt for a formal concentration or a Customized Concentration which may include coursework from other Drexel academic departments in consultation with an academic advisor. Sample customized concentrations might include:

- Educational Administration
- Evaluation & Assessment
- Instructional Design
- Instructional Technology
- Leadership in Educational Settings
- Learning in Game-Based Environments
- Special Education Law and Process
- Special Education Leadership
- Urban Education

Complete 3.0 graduate elective credits (500-799) in EDUC, EDEX, EDGI, EDAM, EHRD, EDHE, CRTV, MTED, EDLT, EDLS, ELL, ABA, EDPO, ENTP or ESTM.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4+1, 1 co-op (Accelerated program completed in 5 years)*

Students complete undergraduate requirements in four years, then convert to graduate status in the fifth and final year.

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
BIO 131 & BIO 134	5.0 BIO 132 & BIO 135	5.0 BIO 133 & BIO 136	5.0 VACATION	
EDUC 101	3.0 CIVC 101	1.0 EDEX 142	3.0	
EDUC 106	1.0 EDUC 107	1.0 EDUC 108	1.0	
ENGL 101 or 111	3.0 ENGL 102 or 112	3.0 EDUC 123	3.0	
MATH 121	4.0 MATH 122	4.0 ENGL 103 or 113	3.0	

UNIV T101	1.0	MATH 123	4.0	
	17	14	19	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
BIO 201	4.0 BIO 215	3.0 BIO 214	4.0 BIO 218	4.0
CHEM 101	3.5 CHEM 102	4.5 CHEM 241	4.0 CHEM 242	4.0
COOP 101**	1.0 EDUC 216	3.0 EDEX 368	3.0 EDLT 325	3.0
EDEX 344	3.0 PSY 101	3.0 EDUC 305	1.0 EDUC 322	3.0
EDUC 205	1.0	EDUC 308	3.0 PHYS 153	4.0
EDUC 365	3.0	PHYS 152	4.0	
	15.5	13.5	19	18
Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	BIO 219	3.0 BIO 228	3.0
EDUC 315	3.0 CHEM 244	3.0 BIO 373	3.0 BIO 306	2.0
		BIO 374	2.0 EDPO 312	3.0
		EDLT 326	3.0 EDUC 324	3.0
		EDUC 316	3.0 ENVS 230	3.0
		EDAM 714	3.0 (GR) MS Elective	3.0
	3	3	17	17
Fourth Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
BIO 404	4.0 EDUC 410	9.0 CHEM 245	3.0 Student classified as Graduate Student	
EDUC 409	9.0 ENVS 284	3.0 EDUC 405	1.0 EDPO 620	3.0
		HIST 289	4.0 EDUC 524	3.0
		PHIL 251	3.0 EDUC 530	3.0
		PSY 320	3.0 (GR) MS Elective	3.0
		(GR) MS Elective	3.0	
	13	12	17	12
Fifth Year				
Fall	Credits Winter	Credits Spring	Credits	
EDAM 705	3.0 EDLT 504	3.0 EDUP 781	3.0	
EDU 780	3.0 EDU 781	3.0 (GR) MS Elective	3.0	
EDUC 609	3.0 (GR) MS Elective	3.0		
	9	9	6	
Total Credits 234				

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Students must receive Department permission to pursue the NCOP option. Students will work directly with their advisor to establish a unique plan of study.

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Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Teacher Education, English BS / Teaching, Learning and Curriculum MS

Major: Teacher Education, English; Teaching, Learning and Curriculum
Degree Awarded: Bachelor of Science (BS) and Master of Science (MS)
Calendar Type: Quarter
Minimum Required Credits: 227.0
Co-op Options: One Co-op (Five years)

About the Program

The Teacher Education, English BS and MS in Teaching, Learning and Curriculum offers a flexible, innovative curriculum with a unique emphasis on creative problem solving and the application of the latest technologies to learning. This accelerated degree program allows candidates to pursue a BS in Education (Secondary/English) with Pennsylvania initial state teacher certification and continue for a fifth graduate year to complete the MS in Teaching, Learning and Curriculum (Advanced Track).

The BS/MS in Teacher Education and Teaching, Learning and Curriculum (Advanced Track) prepares students academically and practically for careers in PK–12 teaching or other educational settings, including capabilities to:

- Demonstrate professional ethics and independent and creative academic best practices that exhibit outstanding leadership, organizational, cross-cultural, interpersonal, and advocacy skills, including the ability to communicate effectively with internal and external groups
- Understand the changing role of teachers in increasingly diverse societies
- Demonstrate a strong academic background in all subject areas that meet PDE requirements, including literacy, language, and STEM areas
- Demonstrate the ability to create and maintain a positive and democratic classroom climate for students
- Demonstrate a thorough understanding of child development in their ability to develop and implement learning opportunities that are unique to every child
- Develop creative academic leadership skills with a global perspective on current educational issues, knowledge of best pedagogical practices, tools to effectively integrate technology in curriculum, assessment, and instruction, and a strong academic background in all subject areas that meet PDE content requirements
- Develop competencies to become reflective practitioners who are lifelong learners, who base their practice on theory, research, and developmentally appropriate pedagogy by analyzing, implementing, and evaluating existing and new instructional strategies and practices in a variety of educational institutions/organizations
- Demonstrate advanced teaching knowledge and skills well beyond that required for initial Pennsylvania certification
- Develop advanced skills 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
- Have in-depth knowledge of both public and private (non-profit and for-profit) institutions as well as small and large institutions

The BS program requires that candidates 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 EDEX, EDLT, EDPO, and EDUC courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program. Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

Admission Requirements

Same as the BS in Teacher Education, the BSMS application must be submitted during sophomore year before 120.0 credits have been completed with a cumulative 3.0 GPA to gain acceptance into the program. Continuation as a BS/MS student in Teaching, Learning and Curriculum (Advanced Track) requires maintaining a minimum term and cumulative 3.0 GPA.

Degree Requirements

General Education Requirements		
ARTH 101	History of Art I	3.0
CIVC 101	Introduction to Civic Engagement	1.0
COOP 101	Career Management and Professional Development *	1.0
COM 230	Techniques of Speaking	3.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
ENVS 260	Environmental Science and Society	3.0
Select one American History course:		4.0
HIST 201	United States History to 1815	
HIST 202	United States History, 1815-1900	
HIST 203	United States History since 1900	
INFO 101	Introduction to Computing and Security Technology	3.0
LING 101	Introduction to Linguistics	3.0
MUSC 130	Introduction to Music	3.0
MATH 101	Introduction to Analysis I	4.0
or MATH 171	Introduction to Analysis A	
MATH 102	Introduction to Analysis II	4.0
or MATH 172	Introduction to Analysis B	
MATH 107	Probability and Statistics for Liberal Arts	3.0
or MATH 173	Introduction to Analysis C	
NFS 100	Nutrition, Foods, and Health	2.0
NFS 101	Introduction to Nutrition & Food	1.0
PHYS 131	Survey of the Universe	3.0
PSY 101	General Psychology I	3.0
PSY 320 [WI]	Educational Psychology	3.0
SOC 335	Sociology of Education	3.0
WRIT 225 [WI]	Creative Writing	3.0
WRIT 301 [WI]	Writing Poetry	3.0
UNIV T101	The Drexel Experience	1.0
Science Sequence		
Select one of the following:		6.0-8.0

CHEM 111	General Chemistry I	
CHEM 112	General Chemistry II	
or		
PHYS 170	Electricity and Motion	
PHYS 175	Light and Sound	
English Requirements (option to 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	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
ENGL 335	Mythology	3.0
ENGL 355 [WI]	Women and Literature	3.0
Pedagogy Requirements		
EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 358	English Teaching Methods	3.0
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
Student Teaching Experiences		
EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0
Free elective		7.0
Master's Requirements		
MS in TLC Core		
EDAM 714	Instructional and Curriculum Leadership (Take EDLS 550 if pursuing Reading Specialist Concentration)	3.0
or EDLS 550	Theories of Reading and Writing	
EDLT 504	Learning Engineering	3.0
EDUC 524	Current Research in Curriculum & Instruction (Take EDLS 575 if pursuing Reading Specialist Concentration)	3.0
or EDLS 575	Responding to Children's and Young Adult Literature	
EDUC 530	Advanced Techniques in Instruction & Assessment	3.0
EDUC 609	Language & Culture in Education (Take EDLS 555 if pursuing Reading Specialist Concentration)	3.0
or EDLS 555	Understanding Literacy through Sociocultural Perspectives	
Policy, Law & Organization Courses		
Select two courses in Education Policy, Law & Organization EDPO or EDAM (500-799). Reading Specialist Concentration students enroll in EDLS 570 and EDLS 650.		6.0
EDAM 705	School Law and Politics	
EDCR 518	Evidence-Based Evaluation	
EDLS 570	Literacy and Evaluation	

EDLS 650	Designing a Literacy Program	
EDPO 622	Foundations of Education Policy	
MS in TLC Capstone Sequence		
EDU 780	Capstone Research	3.0
EDU 781	Masters Capstone I	3.0
EDUP 781	Practitioner Capstone Course II	3.0
Professional or Concentration Electives		15.0
Candidates may select any combination of the following for 15.0 credits: ABA, CRTV, EDAM, EDEX, EDGI, EDLS, EDLT, EDPO, EDUC, EHRD, ELL, ENTP, ESTM, or MTED (500-799 level), or candidates select a formal concentration. (See formal concentration options below)		
Total Credits		227.0-229.0
*		
Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.		
COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.		
Concentration Option *		
Human Resource Development		
EHRD 500	Foundations of Human Resources Development	
EHRD 602	Coaching and Mentoring for Sustainable Learning	
EHRD 611	Organization Development and Change	
EHRD 612	Strategic Human Resource Development	
EHRD 660	Principles of Adult Learning	
Autism Spectrum Disorders		
EDEX 555	Teaching Students with Autism Spectrum Disorder	
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	
Creativity and Innovation		
CRTV 501	Foundations in Creativity	
CRTV 502	Tools and Techniques in Creativity	
CRTV 503	Creativity in the Workplace	
CRTV 620	Research Methods and Assessment of Creative and Innovative Thinking	
CRTV 630	Global Perspectives on Creativity	
Educational Policy		
EDPO 622	Foundations of Education Policy	
EDPO 624	The Shaping of American Education Policy: Global Forces, Interest Groups, and Politics	
EDPO 628	American Educational Policy and U.S. Competitiveness	
EDPO 632	Ethics in Educational Policy Making	
EDPO 636	Access & Equity in Educational Policy Making	
Global & International Education		
EDGI 506	Comparative Higher Education Systems	
EDGI 510	Culture, Society & Education in Comparative Perspective	
EDGI 522	Education for Global Citizenship, Sustainability, and Social Justice	
EDGI 524	Measuring the World: Education and National Development	
EDGI 552	Gender, Education, and International Organizations	
Higher Education		
EDGI 506	Comparative Higher Education Systems	
EDHE 501	Foundations of Higher Education and Governance	
EDHE 531	Legal Issues & Ethics in Higher Education	
EDHE 662	Critical Issues in Student Affairs	
EHRD 660	Principles of Adult Learning	
Learning Technologies		

EDLT 503	The Learning Sciences
EDLT 504	Learning Engineering
EDLT 543	Play & Learning in a Participatory Culture
or EDLT 591 Learning Analytics: Lenses on students, teaching, and curriculum enactment	
EDLT 551	Instructional Design Methods
ELL 503	Teaching and Learning Issues in E-Learning
Multisensory Reading Instruction Level 1	
EDLS 620	Applied Methods in Multisensory Reading Instruction
EDLS 621	Multisensory Reading Instruction
EDLS 622	Basic Word Study I
EDLS 623	Basic Word Study II
EDLS 624	Multisensory Practicum I
EDLS 625	Multisensory Practicum II
EDLS 626	Multisensory Practicum III
Professional Elective (minimum 3.0 credits) **	
Reading Specialist Certification Concentration	
EDLS 560	Reading and Writing in the Content Areas (7-12)
EDLS 565	Constructing Meaning through Reading and Writing
EDLS 620	Applied Methods in Multisensory Reading Instruction
EDLS 622	Basic Word Study I
EDLS 623	Basic Word Study II
EDLS 624	Multisensory Practicum I
EDLS 625	Multisensory Practicum II
EDLS 626	Multisensory Practicum III
Teaching English as a Second Language Certification	
EDUC 602	Language Learning & Teaching
EDUC 604	Structure and Sound System of English
EDUC 606	Design and Assessment
EDUC 608	The Intercultural Learner
Professional Elective (minimum 3 credits) **	
Social Emotional Behavioral Wellness	
EDEX 580	Social Emotional Wellness and Evidence-Based Preventative School Practices
EDEX 581	Understanding Social Emotional Disorders
EDEX 582	Evidence-Based School Interventions and Trauma Informed Education/Care
EDEX 583	Collaboration and Community Based Practices to Promote Social Emotion Wellness
Professional Elective (minimum 3 credits) **	

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Candidates may opt for a formal concentration or a **Customized Concentration** which may include course work from other Drexel academic departments in consultation with an academic advisors. Sample customized concentrations might include:

- Educational Administration
- Evaluation & Assessment
- Instructional Design
- Instructional Technology
- Leadership in Educational Settings
- Learning in Game-Based Environments
- Special Education Law and Process
- Special Education Leadership
- Urban Education

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Complete 3.0 graduate elective credits (500-799) in EDUC, EDEX, EDGI, EDAM, EHRD, EDHE, CRTV, MTED, EDLT, EDLS, ELL, ABA, EDPO, SCL, ENTP or ESTM.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4+1, 1 co-op (Accelerated program completed in 5 years)*

Students complete undergraduate requirements in four years, then convert to graduate status in the fifth and final year.

First Year							
Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
CHEM 111 or PHYS 170	3.0	4.0	ARTH 101	3.0	EDEX 142	3.0	VACATION
EDUC 101	3.0	CHEM 112 or PHYS 175	4.0	EDUC 108	1.0		
EDUC 106	1.0	CIVC 101	1.0	EDUC 123	3.0		
ENGL 101 or 111	3.0	EDUC 107	1.0	ENGL 103 or 113	3.0		
MATH 101 or 171	4.0	ENGL 102 or 112	3.0	MATH 107 or 173	3.0		
UNIV T101	1.0	MATH 102 or 172	4.0	PHYS 131	3.0		
15-16		15-16		16		0	
Second Year							
Fall	Credits	Winter	Credits	Spring	Credits	Summer	Credits
COOP 101**	1.0	EDUC 216	3.0	COM 230	3.0	ECON 201	4.0
EDEX 344	3.0	ENGL 201	3.0	EDEX 368	3.0	EDLT 325	3.0
EDUC 205	1.0	INFO 101	3.0	EDUC 305	1.0	EDUC 322	3.0
EDUC 365	3.0	LING 101	3.0	EDUC 308	3.0	HIST 201, 202, or 203	4.0
ENGL 200	3.0	NFS 100 & NFS 101	3.0	ENVS 260	3.0	(UG) Free Elective	3.0
PSY 101	3.0	WRIT 301	3.0	(UG) Free elective	4.0		
WRIT 225	3.0						
17		18		17		17	

EDUC 358	3.0 ENGL 211	3.0 ENGL 304	3.0 EDUC 324	3.0
		PSY 320	3.0 ENGL 212	3.0
		SOC 335	3.0 ENGL 335	3.0
		(GR) MS Professional Elective	3.0 (GR) MS Professional Elective	3.0
	3	3	15	15
Fourth Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 409	9.0 EDUC 410	9.0 EDUC 405	1.0 EDAM 705	3.0
ENGL 204	3.0 ENGL 335	3.0 ENGL 205	3.0 EDUC 524	3.0
(GR) MS Professional Elective	3.0 EDLT 504	3.0 ENGL 206	3.0 EDUC 530	3.0
		ENGL 325	3.0	
		MUSC 130	3.0	
		EDAM 714	3.0	
		Student converts to Grad status at the end of the Spring Term		
	15	15	16	9
Fifth Year				
Fall	Credits Winter	Credits Spring	Credits	
EDU 780	3.0 EDU 781	3.0 EDPO 622 or EDCR 518	3.0	
EDUC 609	3.0 (GR) MS Professional Elective	3.0 EDUP 781	3.0	
(GR) MS Professional Elective	3.0			
	9	6	6	
Total Credits 227-229				

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Students must receive Department permission to pursue the NCOP option. Students will work directly with their advisor to establish a unique plan of study.

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Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Teacher Education, Secondary Mathematics BS / Teaching, Learning and Curriculum MS

Major: Teacher Education, Secondary Mathematics; Teaching, Learning and Curriculum

Degree Awarded: Bachelor of Science (BS) and Master of Science (MS)

Calendar Type: Quarter

Minimum Required Credits: 227.0

Co-op Options: One Co-op (Five years)

About the Program

The Teacher Education, Secondary Mathematics (7-12) BS and Teaching, Learning and Curriculum MS (Advanced Track) offers a flexible, innovative curriculum with a unique emphasis on creative problem-solving and the application of the latest technologies to learning. This accelerated degree program allows candidates to pursue a BS in Education (Secondary Mathematics 7-12) with Pennsylvania initial state teacher certification and continue for a fifth graduate year to complete the MS in Teaching Learning and Curriculum (Advanced Track).

The BS/MS in Secondary Mathematics Education and Teaching, Learning and Curriculum (Advanced Track) prepares students academically and practically for careers in PK–12 teaching or other educational settings, including capabilities to:

- Demonstrate professional ethics and independent and creative academic best practices that exhibit outstanding leadership, organizational, cross-cultural, interpersonal, and advocacy skills, including the ability to communicate effectively with internal and external groups
- Understand the changing role of teachers in increasingly diverse societies
- Demonstrate a strong academic background in all subject areas that meet PDE requirements, including literacy, language, and STEM areas
- Demonstrate the ability to create and maintain a positive and democratic classroom climate for students
- Demonstrate a thorough understanding of child development in their ability to develop and implement learning opportunities that are unique to every child
- Develop creative academic leadership skills with a global perspective on current educational issues, knowledge of best pedagogical practices, tools to effectively integrate technology in curriculum, assessment, and instruction, and a strong academic background in all subject areas that meet PDE content requirements
- Develop competencies to become reflective practitioners who are lifelong learners, who base their practice on theory, research, and developmentally appropriate pedagogy by analyzing, implementing, and evaluating existing and new instructional strategies and practices in a variety of educational institutions/organizations
- Demonstrate advanced teaching knowledge and skills well beyond that required for initial Pennsylvania certification
- Develop advanced skills 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
- Have in-depth knowledge of both public and private (non-profit and for-profit) institutions as well as small and large institutions

The BS program requires that candidates 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 EDEX, EDLT, EDPO, EDUC, and MTED courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program. Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

Admission Requirements

Same as the BS in Teacher Education, the BSMS application must be submitted during sophomore year before 120.0 credits have been completed with a cumulative 3.0 GPA to gain acceptance into the program. Continuation as a BS/MS student in Teaching, Learning and Curriculum (Advanced Track) requires maintaining a minimum term and cumulative 3.0 GPA.

Degree Requirements

General Education Requirements

CIVC 101	Introduction to Civic Engagement	1.0
COOP 101	Career Management and Professional Development *	1.0
CS 150	Computer Science Principles	3.0
ECON 201	Principles of Microeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
English elective course between 200-329		3.0
HIST 289	History of Science: Enlightenment to Modernity	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	1.0

Mathematics Requirements

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 [WI]	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
BIO 110	Biological Diversity, Ecology and Evolution Laboratory	1.0
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
ENVS 260	Environmental Science and Society	3.0
PHYS 101	Fundamentals of Physics I	4.0
PHYS 102	Fundamentals of Physics II	4.0

Pedagogy Requirements

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDLT 326	Technology Applications for Learning	3.0

EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0
MTED 419	Teaching Secondary Mathematics	3.0
MTED 428	Cultural and Historical Significance of Mathematics	3.0
Free Elective		3.0

Student Teaching Experience

EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0

MS in TLC Core

EDAM 714	Instructional and Curriculum Leadership (Take EDLS 550 if pursuing Reading Specialist Concentration)	3.0
or EDLS 550	Theories of Reading and Writing	
EDUC 524	Current Research in Curriculum & Instruction (Take EDLS 575 if pursuing Reading Specialist Concentration)	3.0
or EDLS 575	Responding to Children's and Young Adult Literature	
EDLT 504	Learning Engineering	3.0
EDUC 530	Advanced Techniques in Instruction & Assessment	3.0
EDUC 609	Language & Culture in Education (Take EDLS 555 if pursuing Reading Specialist Concentration)	3.0
or EDLS 555	Understanding Literacy through Sociocultural Perspectives	
Policy, Law & Organization Courses (6.0 credits)		6.0
Select two courses in Education Policy, Law & Organization EDPO or EDAM (500-799). Reading Specialist Concentration students enroll in EDLS 570 and EDLS 650.		
EDAM 705	School Law and Politics	
EDCR 518	Evidence-Based Evaluation	
EDLS 570	Literacy and Evaluation	
EDLS 650	Designing a Literacy Program	
EDPO 622	Foundations of Education Policy	

MS in TLC Capstone Sequence (9.0-10.5 credits)

EDU 780	Capstone Research	3.0
EDU 781	Masters Capstone I	3.0
EDUP 781	Practitioner Capstone Course II	3.0

Professional or Concentration Electives (15.0 credits)

15.0

Candidates may select any combination of the following for 15.0 credits: ABA, CRTV, EDAM, EDEX, EDGI, EDLS, EDLT, EDPO, EDUC, EHRD, ELL, ENTP, ESTM, or MTED (500-799 level), or candidates select a formal concentration. (See formal concentration options below)

Total Credits	227.0
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Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Concentration Option *

Human Resource Development

EHRD 500	Foundations of Human Resources Development
EHRD 602	Coaching and Mentoring for Sustainable Learning
EHRD 611	Organization Development and Change
EHRD 612	Strategic Human Resource Development
EHRD 660	Principles of Adult Learning

Autism Spectrum Disorders

EDEX 555	Teaching Students with Autism Spectrum Disorder
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

Creativity and Innovation

CRTV 501	Foundations in Creativity
CRTV 502	Tools and Techniques in Creativity
CRTV 503	Creativity in the Workplace
CRTV 620	Research Methods and Assessment of Creative and Innovative Thinking
CRTV 630	Global Perspectives on Creativity

Educational Policy

EDPO 622	Foundations of Education Policy
EDPO 624	The Shaping of American Education Policy: Global Forces, Interest Groups, and Politics
EDPO 628	American Educational Policy and U.S. Competitiveness
EDPO 632	Ethics in Educational Policy Making
EDPO 636	Access & Equity in Educational Policy Making

Global & International Education

EDGI 506	Comparative Higher Education Systems
EDGI 510	Culture, Society & Education in Comparative Perspective
EDGI 522	Education for Global Citizenship, Sustainability, and Social Justice
EDGI 524	Measuring the World: Education and National Development
EDGI 552	Gender, Education, and International Organizations

Higher Education

EDGI 506	Comparative Higher Education Systems
EDHE 501	Foundations of Higher Education and Governance
EDHE 531	Legal Issues & Ethics in Higher Education
EDHE 662	Critical Issues in Student Affairs
EHRD 660	Principles of Adult Learning

Learning Technologies

EDLT 503	The Learning Sciences
EDLT 504	Learning Engineering
EDLT 543	Play & Learning in a Participatory Culture
or EDLT 591	Learning Analytics: Lenses on students, teaching, and curriculum enactment
EDLT 551	Instructional Design Methods
ELL 503	Teaching and Learning Issues in E-Learning

Multisensory Reading Instruction Level 1

EDLS 620	Applied Methods in Multisensory Reading Instruction
EDLS 621	Multisensory Reading Instruction
EDLS 622	Basic Word Study I
EDLS 623	Basic Word Study II
EDLS 624	Multisensory Practicum I
EDLS 625	Multisensory Practicum II
EDLS 626	Multisensory Practicum III
Professional Elective (minimum 3.0 credits) **	

Reading Specialist Certification Concentration

EDLS 560	Reading and Writing in the Content Areas (7-12)
EDLS 565	Constructing Meaning through Reading and Writing
EDLS 620	Applied Methods in Multisensory Reading Instruction
EDLS 622	Basic Word Study I
EDLS 623	Basic Word Study II
EDLS 624	Multisensory Practicum I

EDLS 625	Multisensory Practicum II
EDLS 626	Multisensory Practicum III

Teaching English as a Second Language Certification

EDUC 602	Language Learning & Teaching
EDUC 604	Structure and Sound System of English
EDUC 606	Design and Assessment
EDUC 608	The Intercultural Learner
Professional Elective (minimum 3 credits) **	

Social Emotional Behavioral Wellness

EDEX 580	Social Emotional Wellness and Evidence-Based Preventative School Practices
EDEX 581	Understanding Social Emotional Disorders
EDEX 582	Evidence-Based School Interventions and Trauma Informed Education/Care
EDEX 583	Collaboration and Community Based Practices to Promote Social Emotion Wellness
Professional Elective (minimum 3 credits) **	

*

Candidates may opt for a formal concentration or a **Customized Concentration** which may include course work from other Drexel academic departments in consultation with an academic advisors. Sample customized concentrations might include:

- Educational Administration
- Evaluation & Assessment
- Instructional Design
- Instructional Technology
- Leadership in Educational Settings
- Learning in Game-Based Environments
- Special Education Law and Process
- Special Education Leadership
- Urban Education

**

Complete 3.0 graduate elective credits (500-799) in EDUC, EDEX, EDGI, EDAM, EHRD, EDHE, CRTV, MTED, EDLT, EDLS, ELL, ABA, EDPO, ENTP or ESTM.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4+1, 1 co-op (Accelerated program completed in 5 years)*

Students complete undergraduate requirements in four years, then convert to graduate status in the fifth and final year.

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 101	3.0 CIVC 101	1.0 BIO 107	3.0 VACATION	
EDUC 106	1.0 EDUC 107	1.0 BIO 108	1.0	
ENGL 101 or 111	3.0 ENGL 102 or 112	3.0 EDEX 142	3.0	
MATH 121	4.0 MATH 122	4.0 EDUC 108	1.0	
PSY 101	3.0 PHIL 251	3.0 EDUC 123	3.0	
UNIV T101	1.0 (UG) Free Elective	3.0 ENGL 103 or 113	3.0	
		MATH 123	4.0	
	15	15	18	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP 101**	1.0 CS 150	3.0 CHEM 101	3.5 BIO 109	3.0
EDEX 344	3.0 ECON 201	4.0 EDEX 368	3.0 BIO 110	1.0
EDUC 205	1.0 EDUC 216	3.0 EDUC 305	1.0 CHEM 102	4.5
EDUC 365	3.0 MATH 201	4.0 EDUC 308	3.0 EDLT 325	3.0
HIST 289	4.0	MATH 205	3.0 EDUC 322	3.0
MATH 200	4.0	MATH 210	4.0 MTED 428	3.0
	16	14	17.5	17.5
Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDLT 326	3.0 EDPO 312	3.0
MTED 419	3.0	EDUC 316	3.0 EDUC 324	3.0
		MATH 220	3.0 MATH 221	3.0
		PHYS 101	4.0 PHYS 102	4.0
		(GR) MS Professional Elective	3.0 (GR) MS Professional Elective	3.0
	3	0	16	16
Fourth Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 409	9.0 EDLT 504	3.0 EDUC 405	1.0 EDAM 705	3.0
MATH 331	4.0 EDUC 410	9.0 ENGL 200 - ENGL 395	3.0 EDUC 524	3.0
(GR) MS Professional Elective	3.0 MATH 311	4.0 ENVS 260	3.0 EDUC 530	3.0
		MATH 312	4.0	
		PSY 320	3.0	
		EDAM 714	3.0	
		Student converts to Grad status at the end of the Spring Term		
	16	16	17	9
Fifth Year				
Fall	Credits Winter	Credits Spring	Credits	
EDU 780	3.0 EDU 781	3.0 EDCR 518 or EDPO 622	3.0	

EDUC 609	3.0 (GR) MS Professional Elective	3.0 EDUP 781	3.0
(GR) MS Professional Elective	3.0		
	9	6	6
Total Credits 227			

*

Students must receive Department permission to pursue the NCOP option. Students will work directly with their advisor to establish a unique plan of study.

**

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Teacher Education, Secondary Social Studies BS / Teaching, Learning and Curriculum MS

Major: Teacher Education, Secondary Social Studies; Teaching, Learning and Curriculum

Degree Awarded: Bachelor of Science (BS) and Master of Science (MS)

Calendar Type: Quarter

Minimum Required Credits: 225.0

Co-op Options: One Co-op (Five years)

About the Program

The BS/MS in Teacher Education with Secondary Education and MS in Teaching Learning and Curriculum offers a flexible, innovative curriculum with a unique emphasis on creative problem-solving and the application of the latest technologies to learning. This accelerated degree program allows candidates to pursue a BS in Education (Secondary/Social Studies) with Pennsylvania initial state teacher certification and continue for a fifth graduate year to complete the MS in Teaching Learning and Curriculum (Advanced Track).

The BS/MS in Teacher Education and Teaching, Learning and Curriculum (Advanced Track) prepares students academically and practically for careers in PK–12 teaching or other educational settings, including capabilities to:

- Demonstrate professional ethics and independent and creative academic best practices that exhibit outstanding leadership, organizational, cross-cultural, inter-personal, and advocacy skills, including the ability to communicate effectively with internal and external groups
- Understand the changing role of teachers in increasingly diverse societies
- Demonstrate a strong academic background in all subject areas that meet PDE requirements, including literacy, language, and STEM areas
- Demonstrate the ability to create and maintain a positive and democratic classroom climate for students

- Demonstrate a thorough understanding of child development in their ability to develop and implement learning opportunities that are unique to every child
- Develop creative academic leadership skills with a global perspective on current educational issues, knowledge of best pedagogical practices, tools to effectively integrate technology in curriculum, assessment and instruction, and a strong academic background in all subject areas that meet PDE content requirements
- Develop competencies to become reflective practitioners who are lifelong learners, who base their practice on theory, research, and developmentally appropriate pedagogy by analyzing, implementing, and evaluating existing and new instructional strategies and practices in a variety of educational institutions/organizations
- Demonstrate advanced teaching knowledge and skills well beyond that required for initial Pennsylvania certification
- Develop advanced skills 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
- Have in-depth knowledge of both public and private (non-profit and for-profit) institutions as well as small and large institutions

The BS program requires that candidates 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 EDEX, EDLT, EDPO, and EDUC courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program. Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

For more information please visit the School of Education website (<https://drexel.edu/soe/academics/undergraduate/Degrees/BS-MS-in-Education-Five-Year-Program/>).

Admission Requirements

The admission requirements are the same as the BS in Teacher Education. The BS/MS application must be submitted during sophomore year before 120.0 credits have been completed with a cumulative 3.0 GPA to gain acceptance into the BS/MS program. Continuation as a BS/MS student in Teaching, Learning and Curriculum (Advanced Track) requires maintaining a minimum term and cumulative 3.0 GPA.

Degree Requirements

General Education Requirements

ANTH 101	Introduction to Cultural Diversity	3.0
CIVC 101	Introduction to Civic Engagement	1.0
COOP 101	Career Management and Professional Development *	1.0
ECON 201	Principles of Microeconomics	4.0
ECON 202	Principles of Macroeconomics	4.0
ENGL 101	Composition and Rhetoric I: Inquiry and Exploratory Research	3.0
or ENGL 111	English Composition I	
ENGL 102	Composition and Rhetoric II: Advanced Research and Evidence-Based Writing	3.0
or ENGL 112	English Composition II	
ENGL 103	Composition and Rhetoric III: Themes and Genres	3.0
or ENGL 113	English Composition III	
ENGL 205 [WI]	American Literature I	3.0
PSY 101	General Psychology I	3.0
MATH 101	Introduction to Analysis I	4.0

or MATH 171	Introduction to Analysis A	
MATH 102	Introduction to Analysis II	4.0
or MATH 172	Introduction to Analysis B	
MATH 107	Probability and Statistics for Liberal Arts	3.0
or MATH 173	Introduction to Analysis C	
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, Ethnicity and Social Inequality	4.0
SOC 335	Sociology of Education	3.0
UNIV T101	The Drexel Experience	1.0

Social Studies Content Requirements:

AFAS 201	Cross Currents in Africana Studies	3.0-4.0
or GST 100	Introduction to Cultural Diversity	
or GST 101	Becoming Global: Language and Cultural Context	
Select two:		8.0

HIST 161	Themes in World Civilization I	
HIST 162	Themes in World Civilization II	
HIST 163	Themes in World Civilization III	
HIST 201	United States History to 1815	4.0
HIST 202	United States History, 1815-1900	4.0
HIST 203	United States History since 1900	4.0
HIST 212	Themes in African-American History	4.0
HIST 214	United States Civil Rights Movement	4.0
HIST 275	History of Pennsylvania	3.0
PSCI 110	American Government	4.0
PSCI 140	Comparative Politics I	4.0
PSCI 150	International Politics	4.0
PSCI 220	Constitutional Law I	4.0
PSCI 240	Comparative Politics II	4.0
PSCI 375	Politics of Immigration	4.0

Pedagogy Requirements

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
EDPO 312	Educational Policy, Law & Advocacy	3.0
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
EDUC 106	First Year Seminar: A Case of Schools and Cities	1.0
EDUC 107	First Year Seminar: Exploring Pedagogies	1.0
EDUC 108	First Year Seminar: Designing Learning Spaces	1.0
EDUC 123	Adolescent Development	3.0
EDUC 205	Sophomore Pedagogy Seminar	1.0
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 305 [WI]	Junior Pedagogy Seminar	1.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 322	Evaluation of Instruction	3.0
EDUC 324	Current Research in Curriculum & Instruction	3.0
EDUC 356	Secondary Social Studies Methods	3.0
EDUC 365	Foundations in Instructing English Language Learners	3.0
EDUC 405	Senior Pedagogy Seminar	1.0

Student Teaching Experience

EDUC 409 [WI]	Teaching Practicum	9.0
EDUC 410 [WI]	Student Teaching	9.0

Master's Requirements

MS in TLC Core

EDAM 714	Instructional and Curriculum Leadership (Take EDLS 550 if pursuing Reading Specialist Concentration)	3.0
or EDLS 550	Theories of Reading and Writing	
EDLT 504	Learning Engineering	3.0

EDUC 524	Current Research in Curriculum & Instruction (Take EDLS 575 if pursuing Reading Specialist Concentration)	3.0
or EDLS 575	Responding to Children's and Young Adult Literature	
EDUC 530	Advanced Techniques in Instruction & Assessment	3.0
EDUC 609	Language & Culture in Education (Take EDLS 555 if pursuing Reading Specialist Concentration)	3.0
or EDLS 555	Understanding Literacy through Sociocultural Perspectives	
Policy, Law & Organization Courses (6.0 credits)		6.0
Select two courses in Education Policy, Law & Organization EDPO or EDAM (500-799). Reading Specialist Concentration students enroll in EDLS 570 and EDLS 650.		
EDAM 705	School Law and Politics	
EDCR 518	Evidence-Based Evaluation	
EDLS 570	Literacy and Evaluation	
EDLS 650	Designing a Literacy Program	
EDPO 622	Foundations of Education Policy	
MS in TLC Capstone Sequence (9.0-10.5 credits)		
EDU 780	Capstone Research	3.0
EDU 781	Masters Capstone I	3.0
EDUP 781	Practitioner Capstone Course II	3.0
Professional or Concentration Electives (15.0 credits)		15.0
Candidates may select any combination of the following for 15.0 credits: ABA, CRTV, EDAM, EDEX, EDGI, EDLS, EDLT, EDPO, EDUC, EHRD, ELL, ENTP, ESTM, or MTED (500-799 level), or candidates select a formal concentration. (See formal concentration options below)		
Total Credits		225.0-226.0

*

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

Concentration Option *

Human Resource Development		
EHRD 500	Foundations of Human Resources Development	
EHRD 602	Coaching and Mentoring for Sustainable Learning	
EHRD 611	Organization Development and Change	
EHRD 612	Strategic Human Resource Development	
EHRD 660	Principles of Adult Learning	
Autism Spectrum Disorders		
EDEX 555	Teaching Students with Autism Spectrum Disorder	
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	
Creativity and Innovation		
CRTV 501	Foundations in Creativity	
CRTV 502	Tools and Techniques in Creativity	
CRTV 503	Creativity in the Workplace	
CRTV 620	Research Methods and Assessment of Creative and Innovative Thinking	
CRTV 630	Global Perspectives on Creativity	
Educational Policy		
EDPO 622	Foundations of Education Policy	
EDPO 624	The Shaping of American Education Policy: Global Forces, Interest Groups, and Politics	
EDPO 628	American Educational Policy and U.S. Competitiveness	
EDPO 632	Ethics in Educational Policy Making	
EDPO 636	Access & Equity in Educational Policy Making	

Global & International Education		
EDGI 506	Comparative Higher Education Systems	
EDGI 510	Culture, Society & Education in Comparative Perspective	
EDGI 522	Education for Global Citizenship, Sustainability, and Social Justice	
EDGI 524	Measuring the World: Education and National Development	
EDGI 552	Gender, Education, and International Organizations	
Higher Education		
EDGI 506	Comparative Higher Education Systems	
EDHE 501	Foundations of Higher Education and Governance	
EDHE 531	Legal Issues & Ethics in Higher Education	
EDHE 662	Critical Issues in Student Affairs	
EHRD 660	Principles of Adult Learning	
Learning Technologies		
EDLT 503	The Learning Sciences	
EDLT 504	Learning Engineering	
EDLT 543	Play & Learning in a Participatory Culture	
or EDLT 591 Learning Analytics: Lenses on students, teaching, and curriculum enactment		
EDLT 551	Instructional Design Methods	
ELL 503	Teaching and Learning Issues in E-Learning	
Multisensory Reading Instruction Level 1		
EDLS 620	Applied Methods in Multisensory Reading Instruction	
EDLS 621	Multisensory Reading Instruction	
EDLS 622	Basic Word Study I	
EDLS 623	Basic Word Study II	
EDLS 624	Multisensory Practicum I	
EDLS 625	Multisensory Practicum II	
EDLS 626	Multisensory Practicum III	
Professional Elective (minimum 3.0 credits) **		
Reading Specialist Certification Concentration		
EDLS 560	Reading and Writing in the Content Areas (7-12)	
EDLS 565	Constructing Meaning through Reading and Writing	
EDLS 620	Applied Methods in Multisensory Reading Instruction	
EDLS 622	Basic Word Study I	
EDLS 623	Basic Word Study II	
EDLS 624	Multisensory Practicum I	
EDLS 625	Multisensory Practicum II	
EDLS 626	Multisensory Practicum III	
Teaching English as a Second Language Certification		
EDUC 602	Language Learning & Teaching	
EDUC 604	Structure and Sound System of English	
EDUC 606	Design and Assessment	
EDUC 608	The Intercultural Learner	
Professional Elective (minimum 3 credits) **		
Social Emotional Behavioral Wellness		
EDEX 580	Social Emotional Wellness and Evidence-Based Preventative School Practices	
EDEX 581	Understanding Social Emotional Disorders	
EDEX 582	Evidence-Based School Interventions and Trauma Informed Education/Care	
EDEX 583	Collaboration and Community Based Practices to Promote Social Emotion Wellness	
Professional Elective (minimum 3 credits) **		3.0

★

Candidates may opt for a formal concentration or a **Customized Concentration** which may include course work from other Drexel academic departments in consultation with an academic advisors. Sample customized concentrations might include:

- Educational Administration
- Evaluation & Assessment
- Instructional Design
- Leadership in Educational Settings
- Learning in Game-Based Environments
- Special Education Law and Process
- Special Education Leadership
- Urban Education

★★

Complete 3.0 graduate elective credits (500-799) in EDUC, EDEX, EDGI, EDAM, EHRD, EDHE, CRTV, MTED, EDLT, EDLS, ELL, ABA, EDPO, ENTP or ESTM.

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Sample Plan of Study

4+1, 1 co-op (Accelerated program completed in 5 years)*

Students complete undergraduate requirements in four years, then convert to graduate status in the fifth and final year.

First Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 101	3.0 CIVC 101	1.0 EDEX 142	3.0 VACATION	
EDUC 106	1.0 EDUC 107	1.0 EDUC 108	1.0	
ENGL 101 or 111	3.0 ENGL 102 or 112	3.0 EDUC 123	3.0	
HIST 161	4.0 HIST 162 or 163	4.0 ENGL 103 or 113	3.0	
MATH 101 or 171	4.0 MATH 102 or 172	4.0 MATH 107 or 173	3.0	

UNIV T101	1.0			
	16	13	13	0
Second Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
ANTH 101	3.0 EDUC 216	3.0 EDUC 305	1.0 EDLT 325	3.0
COOP 101*	1.0 HIST 201	4.0 EDUC 308	3.0 EDUC 322	3.0
EDEX 344	3.0 HIST 214	4.0 ENGL 205	3.0 HIST 275	3.0
EDUC 205	1.0 PSCI 110	4.0 HIST 202	4.0 PSCI 375	4.0
EDUC 365	3.0 PSY 150	3.0 HIST 203	4.0 SOC 101	3.0
PSY 101	3.0			
	14	18	15	16
Third Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
COOP EXPERIENCE	COOP EXPERIENCE	EDUC 316	3.0 ECON 201	4.0
EDUC 356	3.0	EDEX 368	3.0 EDPO 312	3.0
		PSCI 140	4.0 EDUC 324	3.0
		PSY 320	3.0 PSCI 150	4.0
		SOC 335	3.0 SOC 210	4.0
	3	0	16	18
Fourth Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDUC 409	9.0 AFAS 201, GST 100, or GST 101	3.0 Student converts to Grad status at the end of the Spring term	EDAM 705	3.0
PSCI 220	4.0 EDUC 410	9.0 ECON 202	4.0 EDUC 524	3.0
(GR) MS Professional Elective	3.0 EDLT 504	3.0 EDUC 405	1.0 EDUC 530	3.0
		HIST 212	4.0	
		PSCI 240	4.0	
		EDAM 714	3.0	
	16	15	16	9
Fifth Year				
Fall	Credits Winter	Credits Spring	Credits Summer	Credits
EDU 780	3.0 EDU 781	3.0 EDPO 622 or EDCR 518	3.0	
EDUC 609	3.0 (GR) MS Professional Elective	6.0 EDUP 781	3.0	
(GR) MS Professional Elective	3.0	(GR) MS Professional Elective	3.0	
	9	9	9	
Total Credits 225				

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Students must receive Department permission to pursue the NCOP option. Students will work directly with their advisor to establish a unique plan of study.

★★

Co-op cycles may vary. Students are assigned a co-op cycle (fall/winter, spring/summer, summer-only) based on their co-op program (4-year, 5-year) and major.

COOP 101 registration is determined by the co-op cycle assigned and may be scheduled in a different term. Select students may be eligible to take COOP 001 in place of COOP 101.

DragonsTeach Certification Minor

About the Minor

This minor can be coupled with a variety of STEM majors. It will provide an opportunity to explore STEM education and develop core knowledge and practices in secondary STEM education. Successful STEM Education minor candidates will be prepared to apply for the PA Instructional I teaching certification as a secondary teacher (grades 7-12) in one or more STEM content areas. This minor includes coursework that meets the requirements to be recommended for teacher certification in PA.

The program requires that candidates 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 EDEX, EDUC, ESTM, and MTED courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program. Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Admission Requirements

Must be a STEM major.

Program Requirements

Introductory Courses		
ESTM 201	DragonsTeach: Step 1	1.5
ESTM 210	DragonsTeach: Step 2	1.5
STEM Education Core Courses		
ESTM 301	Knowing and Learning in Mathematics and Science	3.0
ESTM 302	Classroom Interactions	3.0
ESTM 350	Project-Based Instruction	4.0
History of Science or Mathematics Course *		
ESTM 362	Perspectives in Science and Mathematics Education	3.0
or MTED 428	Cultural and Historical Significance of Mathematics	
or HIST 285	Technology in Historical Perspective	
STEM Teaching Methods Course		
MTED 419	Teaching Secondary Mathematics	3.0
or EDUC 315	Secondary Science Teaching Methods	
or ESTM 335	Teaching Secondary Computer Science	
STEM Research Methods		
Select from the following Research/Methods/Design course from a STEM department **		3.0
BIO 471	Seminar in Biological Sciences	
BIO 472	Seminar in Biological Sciences	
BIO 473 [WI]	Seminar in Biological Sciences	
ENGR 370	Vertically Integrated Projects	
CHEM 367	Chemical Information Retrieval	
Special Education and English Language Learner Courses		
EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDUC 365	Foundations in Instructing English Language Learners	3.0
Student Teaching		
ESTM 409	Student Teaching Seminar	3.0
Total Credits		34.0

*

Specific course selected in consultation with a School of Education academic advisor and is dependent on student's aspirations for teacher certification.

**

A Research/Methods/Design course from a student's home department may be substituted in consultation with a School of Education academic advisor.

NOTE: In addition, students specifically pursuing secondary level Mathematics PA Teacher Certification must also complete ESTM T380: Functions and Modeling.

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

DragonsTeach Middle Years Minor

About the Minor

This minor can be coupled with a variety of majors. It will provide an opportunity to explore middle level education and develop core knowledge and practices in education. Successful DTMY Education minor candidates may choose to build upon the requirements of this minor to further their education and complete PA Instructional I teacher certification in grades 4-8 through the School of Education's other minor, DragonsTeach Middle Years Certification Minor (p. 78).

Program Requirements

Introductory Courses		
ESTM 201	DragonsTeach: Step 1	1.5
ESTM 210	DragonsTeach: Step 2	1.5
Special Education and English Language Learner Courses		
EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDUC 365	Foundations in Instructing English Language Learners	3.0
Pedagogy Courses		
EDUC 123	Adolescent Development	3.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 316	Teaching in Urban Contexts	3.0
Total Credits		24.0

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

DragonsTeach Middle Years Certification Minor

About the Minor

This minor can be coupled with a variety of majors and fulfils the coursework that leads to a Pennsylvania Instructional I teaching certification in grades 4-8. It will provide the opportunity to learn about teaching middle level grades and to develop core knowledge and practices in education. Candidates will select to focus on certification in two middle level content areas. This minor includes coursework that meets the requirements to be recommended for teacher certification in Pennsylvania.

The program requires that candidates 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 EDEX, EDUC, and ESTM courses throughout their time in the program. These requirements must be satisfied for Drexel to recommend the candidates for teacher certification upon graduation and/or be considered to have completed the program. Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Program Requirements

Introductory Course

ESTM 201	DragonsTeach: Step 1	1.5
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Special Education and English Language Learner Courses

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 344	Inclusive Practices	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDUC 365	Foundations in Instructing English Language Learners	3.0

Pedagogy Courses

EDUC 123	Adolescent Development	3.0
EDUC 308	Creating a Positive Classroom Climate	3.0
EDUC 316	Teaching in Urban Contexts	3.0
EDUC 326 [WI]	Language Arts Processes	3.0

Pre-residency

EDUC 360	English/Language Arts Teaching Methods for the Middle Years	1.5
EDUC 361	Middle Years Science Methods	1.5
EDUC 362	Middle Years Social Studies Methods	1.5
MTED 363	Middle Years Mathematics Methods (4-8)	1.5

Student Teaching

ESTM 409	Student Teaching Seminar (repeat 3-credit course twice)	6.0
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Total Credits		37.5
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Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

Minor in Education

About the Minor

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 their major—or in post-baccalaureate work—the courses required for the minor are applicable to Pennsylvania state certification.

The following courses (EDEX 368 [WI] , EDUC 123 EDUC 222 and EDUC 365) require stage 1-2 field experience. Students must submit current clearances and the appropriate field placement application prior to registering for those courses. For more information regarding stage 1-2 field placements and obtaining clearances, please click on the Field Placement Office website (<https://drexel.edu/soe/resources/student-teaching/>).

Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Program Requirements

Required Courses

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
EDEX 368 [WI]	Literacy and Content Skill Development PK-12	3.0
EDLT 325	Design for Learning with Digital Media	3.0
or EDUC 308	Creating a Positive Classroom Climate	
EDUC 101	Foundations in Education I: A Historical and Philosophical Perspective	3.0
or EDUC 316	Teaching in Urban Contexts	
EDUC 123	Adolescent Development	3.0
or EDUC 222	Development in Early Childhood Education	
EDUC 216	Diversity and Today's Teacher	3.0
EDUC 322	Evaluation of Instruction	3.0
or EDUC 306	Assessment of Young Children I	
EDUC 324	Current Research in Curriculum & Instruction	3.0
or EDUC 365	Foundations in Instructing English Language Learners	

Total Credits		24.0
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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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

Minor in Sport Coaching Leadership

About the Minor

The minor in Sport Coaching Leadership (SCL), open to all undergraduate students across the University, provides the foundation for the effective coaching and managing of athletes at various levels. The minor is complementary to a variety of degree programs.

Upon completion of the minor, students will have developed the ability to communicate and motivate athletes, enhance the social and emotional growth of athletes, develop sound physical training programs, use sport skills effectively, inform athletes about the principles of good nutrition, reduce injuries by managing roles better, effectively deal with equipment,

facilities, scheduling and team logistics and understand the administrative facets of coaching.

Program Requirements

Required Core Courses

SCL 101	Principles of Coaching	3.0
SCL 102	Principles of Coaching II	3.0
SCL 203	Sports Conditioning	3.0
SCL 210	Prevention and Care of Athletic Injuries	3.0
SCL 495	Coaching Practicum I	3.0
or SCL 496	Coaching Practicum II	

SCL Minor Electives

Select 9 credits from the following		9.0
PSY 245 [WI]	Sports Psychology	
SCL 201	Sport-Based Youth Development	
SCL 280	Kinesiology	
SCL 314	Sport Performance and Energy Systems	
SCL 315	Athletic Recruiting	
SCL 325	Athlete Leadership Development	
SCL 345	Evaluating Athletes and Teams	
SCL 401	Professional Coaching Portfolio	
SCL 419	Global Coaching Seminar	

Total Credits 24.0

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 (<https://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/faculty-programs/#writing-intensive-list>) at the University Writing Program (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/>). (<http://drexel.edu/coas/academics/departments-centers/english-philosophy/university-writing-program/drexel-writing-center/>) Students scheduling their courses can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Additional Information

More information is available at the School of Education's (<http://www.drexel.edu/soe/>) website.

Minor in STEM Education

About the Minor

This minor can be coupled with a variety of STEM majors. It will provide an opportunity to explore STEM education and to develop core knowledge and practices in secondary STEM education. Successful STEM Education minor candidates may build upon the minor's coursework which leads to recommendation for Pennsylvania teaching certification as a secondary teacher (grades 7-12) in one or more STEM content areas. Additional

coursework for teacher certification includes student teaching and requires Special Education and English Language Learner courses (an additional 2 courses + student teaching).

Clearances and field placement applications must be submitted before participating in coursework with classroom-based field components.

Program Requirements

Introductory Courses

ESTM 201	DragonsTeach: Step 1	1.5
ESTM 210	DragonsTeach: Step 2	1.5

STEM Education Core Courses

ESTM 301	Knowing and Learning in Mathematics and Science	3.0
ESTM 302	Classroom Interactions	3.0
ESTM 350	Project-Based Instruction	4.0

History of Science or Mathematics Course *

ESTM 362	Perspectives in Science and Mathematics Education	3.0
or MTED 428	Cultural and Historical Significance of Mathematics	
or HIST 285	Technology in Historical Perspective	

STEM Teaching Methods Course

MTED 419	Teaching Secondary Mathematics	3.0
or EDUC 315	Secondary Science Teaching Methods	
or ESTM 335	Teaching Secondary Computer Science	

STEM Research Methods

Select from the following Research/Methods/Design course from a STEM department **		3.0
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BIO 471	Seminar in Biological Sciences	
BIO 472	Seminar in Biological Sciences	
BIO 473 [WI]	Seminar in Biological Sciences	
CHEM 367	Chemical Information Retrieval	
ENGR 370	Vertically Integrated Projects	

Special Education or English Language Learner Elective

EDEX 142	Special Education Foundations: Referral and Assessment	3.0
or EDEX 344	Inclusive Practices	
or EDUC 365	Foundations in Instructing English Language Learners	

Total Credits 25.0

*

Specific course selected in consultation with a School of Education academic advisor and is dependent on student's aspirations for teacher certification.

**

A Research/Methods/Design course from a student's home department may be substituted in consultation with a School of Education academic advisor.

NOTE: If pursuing PA teaching certification requirements beyond the STEM Minor, all three Special Education or English Language Learner Elective courses listed above must be taken as well as ESTM 409. In addition, students specifically pursuing secondary level Mathematics PA Teacher Certification must also complete ESTM T380: Functions and Modeling.

Additional Information

For more information, please visit the School of Education website (<https://drexel.edu/soe/>).

Certificate in Creativity and Innovation

Certificate Level: Undergraduate

Admission Requirements: High school diploma

Certificate Type: Certificate

Number of Credits to Completion: 9.0

Instructional Delivery: Online

Calendar Type: Quarter

Expected Time to Completion: 2 years

Financial Aid Eligibility: Not aid eligible

Classification of Instructional Program (CIP) Code: 30.9999

Standard Occupational Classification (SOC) Code: 11-9199

About the Program

Elevate your vision, ignite your passion and chart a course toward a future defined by innovation and ingenuity with our undergraduate certificate in Creativity & Innovation (C&I). Unlock your creative potential and transform the world around you. The program will equip you with a powerful toolkit of tools and techniques to amplify your creative strengths toward unleashing your full potential. From ideation to implementation, you'll harness the power of creativity to tackle complex challenges and seize exciting opportunities, both in your personal life and with the dynamic landscape of your profession and the modern workplace. The innovative coursework provides the fundamentals of creative problem-solving content, skills and competencies indicative of creative leaders, while fostering your ability to apply creativity in your personal life and in leadership roles within your workplace.

Students can complete this undergraduate certificate as a standalone professional development credential or as a concentration within their baccalaureate degree.

Additional Information

For more information about this program, please visit the School of Education (<https://drexel.edu/soe/academics/undergraduate/Degrees/Creativity-Innovation-Undergraduate-Certificate/>) website.

Program Requirements

Requirements			
Core Courses			
CRTV 301	Foundations in Creativity		3.0
CRTV 302	Tools and Techniques in Creativity		3.0
CRTV 303	Creativity in the Workplace		3.0
Total Credits			9.0

Sample Plan of Study

First Year			
Fall	Credits Winter	Credits Spring	Credits
CRTV 301	3.0 CRTV 302	3.0 CRTV 303	3.0
	3	3	3
Total Credits 9			

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