

Guarantee Dual Degree Partnership (GDP) Agreement Between National Louis University and Illinois Institute of Technology

This Agreement is made and entered into this day of _____, 20__ by and between National Louis University (NLU) and Illinois Institute of Technology (IIT). The Agreement has been developed to support the seamless transition and admission of approved candidates into a coterminous five-year degree program: Bachelor of Science (B.S.) from IIT and Master of Arts in Teaching (M.A.T) in Secondary Education (SEC) from NLU.

Introduction

National Louis University and the Illinois Institute of Technology are two premier higher education institutions with a long-standing commitment to and track record of preparing exemplary educators and STEM professionals, respectively. By combining our institutions' expertise and resources, we can advance excellence in teacher preparation in the sciences.

Our two institutions see this initiative as a means of building a strategic alliance that takes full advantage of IIT's deep expertise in science, mathematics, technology and engineering education, and NLU's deep expertise in the preparation of excellent educators. The collaboration is part of a concerted effort to meet the STEM needs of secondary school classrooms in our state by developing highly qualified educators with strong science and mathematics content knowledge and teaching pedagogy.

Partnership Goals

1. Provide opportunities for IIT undergraduate students to pursue teaching licensure in mutually agreed upon STEM disciplines (including applied mathematics, chemistry, physics, and biology)
 - a. Support program completion of current IIT education students to obtain their PEL Secondary Teaching Licensure
 - b. Develop a new five-year, coterminous program that culminates in an earned B.S. and M.A.T. and PEL in Secondary Education
2. Explore opportunities for B.S./M.A.T. students to train other B.S. students on how to provide STEM opportunities to students after school or during summer activities.
3. Identify additional opportunities for collaboration to advance education in the sciences in Chicagoland and more broadly. These might include:
 - Identifying opportunities for funded research
 - Offering pre-requisite or 'deficiency' science and mathematics courses for teacher candidates
 - Providing in-service teachers with professional learning that deepens their expertise in STEM fields
 - Developing alternative pathways for professionals in STEM disciplines to become teachers

Now, therefore, NLU and IIT agree to the following terms:

I. Program Structure:

- a. **Guarantee Student Admissions:** IIT B.S. Physics, Biology, Chemistry or Applied Mathematics students may apply for the IIT-NLU B.S./M.A.T. coterminous program any term prior to Junior Year Semester 2. To begin taking NLU MAT SEC coursework, students must have successfully completed at least 32 semester hours (SH) in their IIT B.S. program (designated physics, biology, chemistry, or applied mathematics tracks) with a 3.0 GPA or better, including 12 SH of upper division coursework with a grade of 'B' or better, and be approved by IIT faculty/advisor. Students must complete the IIT-NLU B.S./M.A.T. program application and meet all of NLU's MAT SEC admissions requirements as outlined in Exhibits 1 and 4 below to begin MAT coursework at NLU. NLU program admission requirements are subject to change.
- b. **Academic Advising:** Students participating in B.S./M.A.T. five-year, coterminous program will be assigned an academic advisor at NLU and an advisor at IIT. The IIT and NLU Advisors will work with the student to develop a plan of study that follows the articulation agreement between NLU and IIT for the coterminous program (see Appendices A-D). The IIT and NLU Advisors will work together to ensure the student's plan of study meet requirements for both NLU and IIT as outlined in this GDP agreement.
- c. **Transfer of Credits:** Students enrolled in the B.S./M.A.T. program should consult with their NLU Academic Advisor and IIT Advisor regularly (at the end of every IIT Semester or NLU quarter term) to ensure the required courses are being taken according to this agreement. The NLU Academic Advisor and IIT Advisor will work with each student to develop a transfer advising plan for completing NLU M.A.T. SEC and IIT B.S. degree requirements upon acceptance into the coterminous program. NLU will submit a request for grade reports for the full list of students from IIT upon the conclusion of the each IIT semester starting with the second IIT Spring semester through fourth IIT Spring semester. In return, NLU is willing to provide a reasonable and customary amount of requested data on the academic progress of these students to IIT as outlined in Exhibit 3 below. Such provided data will be subject to Family Educational Rights and Privacy Act of 1974 (FERPA) rules and regulations.
- d. **Tuition:** The IIT B.S. tuition rate and applicable fees apply for all IIT courses. The prevailing NLU M.A.T. tuition rate and applicable fees will apply for all NLU courses. If students need to take additional courses to cover ISBE pre-requisite or 'deficiency' co content area course requirements, students may take approved courses at IIT, at NLU, or a mutually approved third party provider.
- e. **Financial Aid:** NLU and IIT will determine a financial aid application and administration process that is seamless for students and provides them the most financial support

opportunities possible, including TEACH grants and potential NSF Noyce Scholarship funding. Addendum with final mutually agreed upon process determination to follow.

- f. Student Status:** Students must remain in good academic standing throughout their B.S. and M.A.T. programs at IIT and NLU respectively. Students may withdraw from NLU or IIT at any time prior to completion. Students who are not enrolled in courses for more than two terms at IIT will be automatically withdrawn from the B.S./M.A.T. coterminous program.
- g. Student Services:** Students enrolled in the B.S./M.A.T. program will have full access to student support services from both IIT and NLU including, but not limited to, academic advising, financial aid, library and learning support, ADA accommodations, career services, student resources, orientations, student activities and computer labs. Students in the coterminous program will be invited and encouraged to participate in lectures, cultural events, and other opportunities for enrichment sponsored by either IIT or NLU.
- h. Educational Record Sharing:** Understanding that this B.S./M.A.T. coterminous program is based on mutual support of the student from both institutions, students in this program must authorize the sharing of education records between institutions through a signed agreement kept on file at NLU and IIT. Education records include, but are not limited to, admissions, advising, academic, financial aid, student accounts, grades, academic progress and program completion/graduation information/documentation. Records may be shared at least on a term to term basis. Students must complete the authorization form during the admissions process in order to be admitted to this coterminous program. See Exhibit 3 for required record information.
- i. Policies and Procedures:** All students in the coterminous program will be expected to follow all applicable policies and procedures as identified at each institution, including, but not limited to admissions, enrollment, student services, academics, transfer credits, re-entry policies/procedures and all policies outlined in both Parties' university catalog and guidebook. Transfer articulation agreements, admission requirements and all academic programs are subject to change. NLU will notify IIT of any changes at the time the changes are implemented.
- j. Accreditations.** Each Party shall maintain all necessary and required accreditations, including state and regional accreditations, with the appropriate accreditation agencies. In the event either party's accreditation is revoked or otherwise limited, this Agreement may be terminated immediately upon written notice by the other party. In the event of such termination for loss of accreditation, the institution which remains appropriately accredited shall apply reasonable administrative efforts to accommodate all participating students. The Party that lost accreditation shall pay the other Party its reasonable costs incurred in providing such accommodations.

- k. Marketing and Communication:** For the purposes of this agreement, both Parties grant permission to use, display, reproduce and publish, without compensation, each other's trademarks as an institutional partner on websites, cobranded web portals, and in print marketing publications.
- l.** The Parties will provide an electronic version of the Trademarks for the use permitted by this agreement. Each Party represents and warrants that it possesses all rights necessary for the granting of the permissions set forth in this Agreement.
- m.** Each Institution reserves the right to review in advance any such information of the other used in any way, including but not limited to, websites, cobranded web portals, and in print marketing publications.

II. PROPRIETARY AND CONFIDENTIAL INFORMATION

The Parties agree that all proprietary information identified in writing as such and disclosed by either Party to the other Party, is confidential and shall remain so during the term of this Agreement and thereafter.

Student education records and personally identifiable student information contained therein are likewise confidential and shall remain so during the term of this Agreement and thereafter. The Parties expressly acknowledge that the exchange of information about students is consistent with and permitted by their respective policies and procedures for disclosure of education records to academic officials who have a legitimate educational interest in such information, and thus complies with the Family Educational Rights and Privacy Act. Pursuant to this Agreement the Parties shall obtain written consent from participating students before exchanging such educational record information.

III. TERM AND TERMINATION

- 1. Term:** The initial term of the Agreement is three years ("Initial Term"), commencing on the date the Agreement is fully executed by the Parties, unless terminated earlier in accordance with this Agreement. After the Initial Term, this Agreement shall continue for two additional one-year terms upon mutual written agreement of the Parties. This may be extended with mutual agreement of both Parties.
- 2. Termination:** Either Party may terminate this Agreement for any reason by providing 90 days' advance written notice to the other Party.
- 3.** In the event this Agreement expires or is terminated by either Party, the Parties shall develop a plan to allow all currently enrolled participating students to complete their program of study and obtain their degree under the terms of this Agreement, provided that they continue to meet Program requirements and otherwise remain eligible to attend.

IV. NOTICES

All notices required pursuant to the terms of this Agreement shall be in writing and shall be deemed duly given if delivered in person; or sent by facsimile transmittal with confirmed delivery, or by reputable express courier, or by certified mail properly addressed with proper postage prepaid and return receipt requested. Notices shall be addressed or otherwise sent to the intended recipient Party at its address shown below, or at such address as such Party may in the future notify the other Party in writing:

V. Miscellaneous Provisions

1. **Entire Agreement:** This Agreement is the entire understanding and agreement between the Parties with respect to the subject matter set forth herein, and supersedes any and all prior agreements, understandings, promises, warranties, and representations, oral or written, not incorporated herein.
2. **Amendments and Waivers:** This Agreement may not be amended, modified, altered, supplemented, or changed in any way and no provision may be waived except in writing specifically referring to this Agreement, signed by the Parties and attached hereto as an amendment.
3. **Assignment:** Neither Party may sign this agreement, in whole or in part, without prior written consent of the other Party.
4. **No Third Party Beneficiaries:** Nothing contained herein shall be construed as creating or conferring any right of action or other right or benefit upon any third party.
5. **Governing Law:** This Agreement (including without limitation any and all attachments and amendments hereto) and any dispute arising thereunder shall be governed by and construed according to the laws of the State of Illinois without regard to its conflict-of-laws provisions. The exclusive venue for litigation arising hereunder shall be a court of competent jurisdiction sitting in the State of Illinois.
6. **Signers' Authority to Bind:** The individual signing this Agreement on behalf of his/her respective Party hereby warrants that he or she has the necessary authority to bind that Party to this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement by their duly authorized, respective officers, and by doing so, hereby affirm that the terms and conditions herein are mutually enforceable on behalf of and against each party as of the date first written above.

For National Louis University:

Signature

Saib Othman, Provost

For Illinois Institute of Technology:

Signature

Name:

Title:

National Louis University graduate admissions requirements:

To begin the Secondary Education MAT course sequence at NLU, B.S./M.A.T. candidates must show evidence in undergraduate work of the ability to pursue graduate study, demonstrated by a grade point average of 3.0 or better on a 4.0 scale in the last 60 hours of coursework.” show evidence in undergraduate work of the ability to pursue graduate study, demonstrated by a grade point average of 3.0 or better on a 4.0 scale in the last 60 hours of coursework. Applicants with graduate degrees from regionally accredited institutions will have only the GPA from that advanced degree count toward admission. To be eligible to enter an NCE graduate program with full admission status, applicants must have a minimum GPA of 3.0. Students with GPAs between 2.5 and 2.99 may be accepted with a four-course review status.

- Official transcripts from all institutions attended for applicants to licensure programs that require transcript evaluation; official transcripts from institutions in which a final degree was earned (showing the final degree) for applicants to NCE degree programs that do not lead to licensure
- Responses to three essays prompts (for faculty review) addressing Professional Interests, Community Engagement, and Advocacy or Passion for a Cause.
- Proof of English language proficiency is required if English is not the applicant’s native language and/or the applicant’s high school degree was earned outside the U.S. This requirement may be waived if the applicant has proof of completion of a high school degree for undergraduate admission, or a bachelor’s degree for graduate admission, at an institution where English is the primary language of instruction. Click [here](#) for more information on proof of English Language Proficiency.

National College of Education M.A.T. Secondary Education (Biological Science Concentration) admissions requirements:

- Have a grade point average of 3.0 or better in Biology coursework
- Have 12 semester hours of upper division courses in Biology completed with a grade of "B" or better
- Pass the Content test in Biology

In addition, the Biological Science endorsement requires:

- A major in Biology from a regionally accredited institution or a minimum of 24 SH of coursework in Biology with 10 SH of laboratory courses and at least one course in each of the areas listed below:
 - One course in Chemistry
 - One course in Earth Science/Space Science
 - One course in Environmental Science
 - One course in Physics
 - 6 SH in Math—must be above College Algebra

National College of Education M.A.T. Secondary Education (Mathematics Concentration) admissions requirements:

- Have a grade point average of 3.0 or better in Mathematics coursework
- Have 32 SH of coursework in Mathematics (12 SH of upper division courses must be completed with a grade of "B" or better)
- Pass the Content Test in Mathematics

In addition, candidates must fulfill all of the areas listed below:

- CALCULUS (6 SH)—These courses should cover the topics of limits, continuity, differentiation and applications of integration and possibly some topics from analytic geometry. The use of calculus in solving real life problems with technology should be emphasized. The courses meeting this requirement should be sequential in nature.
- FOUNDATIONS OF GEOMETRY (or COLLEGE GEOMETRY) (3 SH)—This focuses on major concepts of Euclidean geometry, with introduction of non-Euclidean geometry, including the study of axiom and postulate-based deductive systems and the development of mathematical conjectures and proofs. The construction and representation of two and three-dimensional shapes is included as perspective drawings, or physical models, and as virtual representations, using dynamic geometry applications.
- GEOMETRY (3 SH)—Courses such as projective, affine and topology fit here. Three semester hours of an analytic geometry that was integrated in a calculus sequence may be placed here. These three semester hours of geometry must be upper (300/400/graduate) level.
- NUMBER THEORY (3 SH)—Courses should contain number theory, comparisons of numbers and number systems, and representation/application of complex numbers. Courses with titles such as group theory, ring theory and field theory will also fit in this area.
- MODERN/AB.S. TRACT ALGEBRA (3 SH)—Courses within this area should contain the development of the real number system and its subsystems and the analysis and explanation of procedures used for operations involving integers, rational, real and complex numbers. The use of technology to demonstrate and apply the properties of real numbers and their use in solving real life problems should also be included in this course.
- LINEAR ALGEBRA (3 SH)— The content of the course should include matrices and their operations, solutions of systems and equations, vector spaces, linear transformation, eigen values and eigenvectors with a focus on the use of linear algebra in solving real life problems. A course in matrix algebra or matrix theory will fit in this area.
- DISCRETE MATHEMATICS (3 SH)— Coursework within this area will involve the elements of graph theory, recurrence relations, finite difference approaches, linear programming and combinatorics. Coursework can also contain discrete structures and the application of algorithms. Courses with titles such as finite math, logic, data structures and discrete structures would also fit in this area.
- PROBABILITY & STATISTICS (3 SH)—Coursework in this area should contain the treatment of topics as mutually exclusive events, independent and dependent events, conditional probability, combinatorics, random variables, sampling methods, confidence intervals, inferential statistics, distributions and correlation. Estimating probabilities and data representation using graphing

calculators or statistical software should also be covered in this course. A statistics course in other areas (business, economics, etc.) may be placed here.

- HISTORY OF MATHEMATICS (3 SH)—This course provides a study of the historical development of the central concepts of mathematics from early times to the present. Students analyze the accomplishments of significant mathematicians within historical, cultural, and scientific contexts, including contributions from diverse cultures.
- MATH ELECTIVES (2 SH)—Any college-level math courses, if needed to reach 32 SH

National College of Education M.A.T. Secondary Education (Physical Science Concentration) admissions requirements:

- Choose a designation from one of the following: Chemistry, Earth Science, Environmental Science or Physics
- Have a grade point average of 3.0 or better in designation coursework
- Have 32 semester hours of coursework in Science (12 SH of upper division courses must be completed with a grade of "B" or better)
- Have a major from a regionally-accredited institution (or minimum 24 SH) in a single designation area (10 SH of laboratory coursework for students who don't have major in the designation area)
- Have at least one course in Biology and each of the other designations
- Have 6 SH in Math—must be above College Algebra. Courses that will count include Trigonometry, Differential Equations, Advanced Algebra, Statistics and other upper level Math courses.
- Pass the Content Test in designation area

Exhibit 2

Graft Teacher Assistance Fund Award

The Graft Teacher Assistance Fund Award awards eligible students who meet the below criteria. The maximum award a student can receive for the academic year is \$4,000. Students must complete a FAFSA to be considered for the scholarship.

- Submit completed application by the deadline.
- Be a full or part-time degree candidate concentrating in Early Childhood, Elementary, Middle Grades, Secondary or Special Education.
- Maintain a grade point average of 3.25 or higher
- Completion of all pre-requisite courses for student teaching by the time student teaching begins
- Must have passed the Test of Academic Proficiency (TAP) or ISBE approved alternative and Content Area Test(s) as required by the State of Illinois
- Submit one letter of recommendation from an NLU faculty member or adjunct faculty member who has had you in at least one class within the last 12 months. The letter should be emailed by the professor directly to stapplications@nl.edu
- Submit an essay describing your aspirations and financial needs
- Complete the 2018-2019 FAFSA and demonstrate financial need as assessed by the University's financial aid office
- Intention to teach in the Chicago Public Schools or other high-need, low-income schools where the need for teachers is the greatest

Additional information about the Graft Teacher Assistance Fund Award can be found here:

<https://www.nl.edu/financialaid/financialaidresources/scholarships/patriciacassin-graftstudentteacherassistance/>

T.E.A.C.H. (Teacher Education Assistance for College and Higher Education) Grant

The TEACH Grant awards students who meet the criteria below. The maximum award a student can receive for each academic year is \$4,000. Students must complete a FAFSA and NLU application to be considered for the scholarship.

- Full admission to a degree or certificate of advanced study program at National Louis University
- 2018-2019 FAFSA completion
- Not be in default of a student loan
- Annual completion of TEACH Grant Counseling and Agreement to Serve forms
- Agree to teach a high need subject and in a school listed on the Teacher Cancellation Low Income Directory full-time for at least four years within eight years of graduating or ceasing enrollment in the program for which the TEACH Grant was received.

Exhibit 3

Shared data to include but not limited to the following

- Student Name (last, first, middle initial)
- Date of Birth (month, day, year)
- Program Start Date
- Course Number
- Course Title
- Credit Hours
- Instructor
- Course meeting times and dates
- Transcripts
- Grades

Exhibit 4

Year/Semester/Term	IIT/B.S. Courses	NLU/M.A.T. Courses	Outreach, Recruitment & Engagement	Admissions/Advising
<p>Freshman Year (Semester 1 and 2)</p> <p><i>Mid-August to Early Dec and mid-January to early May</i></p>	Typical B.S. program coursework	<p>ISBE Required Deficiency Courses</p> <p>For IIT students in the following B.S. tracks, they will need to complete only the following courses* (in addition to their B.S. program required courses) to meet ISBE deficiency requirements:</p> <ul style="list-style-type: none"> · B.S. Physics- need one course in each: 1) Biology, 2) Earth and Space Science and 3) Environmental Science · B.S. Chemistry- need one course in each: 1) Earth and Space Science and 2) Environmental Science · B.S. Biology- need one course in each: 1) Earth and Space Science and 2) Environmental Science · B.S. Math- need one course in 'History of Math' only <p><i>*Can be taken at IIT, NLU or other mutually approved external institution as needed, Taken as an 'Elective' course under B.S. sequence.</i></p>	<p>Share General Information about B.S./M.A.T. Track Option (Math, Chemistry, Physics, Biology) – from IIT Advisor</p> <p>Exposure to program/teaching option: Classroom visits (STEM/ IIT partner schools, science fairs, hands-on physics class); B.S./M.A.T. Info Session; sit in on NCE M.A.T. Methods class Semester 1 or Intro in Semester 2.</p>	<p>Current M.A.T. SEC admission requirements (NLU/ISBE):</p> <p><i>32 semester hours (SH) of science coursework of which 12 SH must be upper level; a major from a regionally accredited institution or 24 SH of a single designated area with 10 SH of lab: Biology, Chemistry, Earth Science, Environmental Science, or Physics and at least one course in each of the areas plus Math.</i></p> <hr/> <p>Students can submit application for B.S./M.A.T. program.</p> <p>Design an Academic Advising plan with NLU and IIT Advisors. IIT advisors keep tabs on B.S. courses' GPA and overall standing at IIT through shared tracker updated at end of each semester.</p>
Summer between Freshman & Sophomore	-	<ul style="list-style-type: none"> · B.S. Math- need one course in 'History of Math' only 	Potential for working in Summer School science programming	
<p>Sophomore Year (Semester 1 and 2)</p> <p><i>Mid-August to Early Dec and mid-January to early May</i></p>	Typical B.S. program coursework	<p>Suggestions for Environmental Science requirement:</p> <ul style="list-style-type: none"> • LAN 225-Human Impact on the Environment (NLU) • LAN 300-Ecology & Conservation (NLU) • Community college 	<p>Share General Information about B.S./M.A.T. Track Option (Math, Chemistry, Physics, Biology) – from IIT Advisor</p> <p>Exposure to program/teaching option: Classroom visits (STEM/ IIT partner schools, science fairs, hands-on physics class); B.S./M.A.T. Info Session; sit in on NCE M.A.T. Methods class Semester 1 or Intro in Semester 2.</p>	
Summer between Sophomore & Junior	-		Potential for working in Summer School science programming	
<p>Junior Year (Semester 1: End of August – mid December)</p>	Typical B.S. program coursework		<p>Share General Information about B.S./M.A.T. Track Option (Math, Chemistry, Physics, Biology) – from IIT Advisor. Potential to sit in on M.A.T. Methods class.</p>	

		<i>offerings, such as ecology, environmental geology, etc.</i>		approval by Advisors). Sign up for/Pass ISBE-required ILTS Content Exam (involves a fee) – students choose Physics (#116), Biology (#105), Chemistry (#106), or Mathematics (#208).
Junior Year (Semester 2: <i>Mid-January to early May</i>)	Typical B.S. program coursework	NLU Foundations Coursework	---	Candidate completes B.S./M.A.T. application process, including passing ISBE-required ILTS Content Exam (before start of NLU’s Spring term in April). Can’t take SEC 502, SPE 500, or FND 510 without passing ILTS content exam first. SEC 502 must be taken in a Spring term (April-June) with FND 510. SPE 500, RLR 540, EPS 511, and the ISBE required courses can be taken over a Summer term or as part of students’ B.S. program’s Electives during the academic year. Students will be enrolled in NLU’s M.A.T. SEC existing courses with non-IIT students.
Summer between Junior and Senior	-	EPS 511 Human Learning and Development in Instructional Contexts (2 SH, Online) RLP 540 Literacy at the Middle and Secondary Level (3 SH, Blended s) SPE 500 Intro to and Methods of Teaching Students with Disabilities (3 SH Online or Blended at NLU Campus) – includes 15 Observation Hours.	Students welcome to attend NLU events, use NLU facilities at CH campus or otherwise <i>Potential for working in Summer School programming.</i>	
Senior Year (Semester 1: End of August – mid December)	Typical B.S. program coursework	FND 510 History and Philosophy of Education (2 SH, Online or Blended) SEC 502 Intro to Teaching at the Secondary Level (3 SH Blended at NLU CH Campus, evenings,) - includes 30 Observations Hours	Students welcome to attend NLU events, use NLU facilities at CH campus or otherwise.	
Senior Year (Semester 2: Mid-January – mid May)	Typical B.S. program coursework		Students welcome to attend NLU events, use NLU facilities at CH campus or otherwise. <i>Attend NCE M.A.T. Orientation</i>	
Summer between Senior and first year MAT	-	Additional ISBE Required Deficiency Courses (see list from above) Must complete all deficiencies before Fall of 5th year.	Students welcome to attend NLU events, use NLU facilities at CH campus or otherwise.	

<p>MAT Term 1 (Fall, Sept – Dec)</p>	<p>-</p>	<p>PRACTICUM 1 (LINKED PLACEMENT) - includes Supervision</p> <p>SEC 510, 514, or 516 Methods of Teaching at the Secondary and Middle Levels (510 Biology, 514 Mathematics, 516 Physical Science) * (3 SH)</p> <p>SEC 581 A, C or D Practicum in Teaching at the K-12 and Secondary Level (581 A Biology; 581 C Mathematics; 581 D Physical Science) (3SH)</p> <p>CIL 505 Methods and Materials for Teaching English as a Second Language* (3 SH)</p> <p><i>*Overlapping observation hours requirements</i></p>		<p>NLU Advisor continues to update the shared tracker with IIT Advisor at the end of every quarter - including notes about courses, GPA/grades, and outstanding requirements.</p>
<p>MAT Term 2 (Winter, Jan – March)</p>	<p>-</p>	<p>STUDENT TEACHING (LINKED PLACEMENT) & edTPA* - includes Supervision</p> <p>SEC 590 A, C or 590 D Student Teaching Secondary School (590 A Biological Science; 590 C Mathematics; 590 D Physical Science) (6 SH)</p> <p><i>*Submits in March/April</i></p>		<p>NLU staff handle Entitlement of student with ISBE to earn initial teaching license (PEL) once edTPA has been passed, licensure courses passed, deficiency courses passed, and there are no financial holds on their record.</p>
<p>MAT Term 3 (Spring, April-June)</p>	<p>-</p>	<p>FINAL M.A.T. COURSEWORK[^]</p> <ul style="list-style-type: none"> Two Middle Grades, Reading, Special Education*, or ESL ** courses <p><i>*Taking the additional two SPE courses means candidates only need one more courses to complete their LB.S. I endorsement</i></p>	<p>Ask students to share their insights and quotes about their experience to use in promoting to future groups.</p> <p>B.S./M.A.T. students train of other IIT B.S. students to teach STEM modules.</p>	<p>[^]These electives are not required for licensure, only for the M.A.T. degree. Candidates have up to six years after program start date to complete but we recommend they complete in this final Spring term.</p>

		<i>**Taking the additional two CIL courses means candidates only need three more courses to complete their ESL/BIL endorsement</i>		
Graduation!				

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Appendix A: IIT and NLU – B.S. in Physics & M.A.T. SEC Physical Sciences, Physics

Step I: IIT B.S. in Physics (from 2018-2019 Catalog)

Required Courses

Code	Title	Credit Hours
Physics Requirements		(56)
PHYS 100	Intro to the Profession	2
PHYS 123	General Physics I: Mechanics	4
PHYS 221	General Physics II: Electricity and Magnetism	4
PHYS 223	General Physics III	4
PHYS 240	Computational Science	3
PHYS 300	Instrumentation Laboratory	4
PHYS 301	Mathematical Methods of Physics	3
PHYS 304	Thermodynamics and Statistical Physics	3
PHYS 308	Classical Mechanics I	3
PHYS 309	Classical Mechanics II	3
PHYS 348	Modern Physics for Scientists and Engineers	3
PHYS 405	Fundamentals of Quantum Theory I	3
PHYS 406	Fundamentals of Quantum Theory II	3
PHYS 413	Electromagnetism I	3
PHYS 414	Electromagnetism II	3
PHYS 427	Advanced Physics Laboratory I	3
PHYS 440	Computational Physics	3
PHYS 485	Physics Colloquium	1
PHYS 485	Physics Colloquium	1
Mathematics Requirements		(18)
MATH 151	Calculus I	5
MATH 152	Calculus II	5
MATH 251	Multivariate and Vector Calculus	4
MATH 252	Introduction to Differential Equations	4
Mathematics Elective		(3)
Select three credit hours		3
Chemistry Requirements		(8)
CHEM 124	Principles of Chemistry I with Laboratory	4
CHEM 125	Principles of Chemistry II with Laboratory	4
Computer Science Requirement		(2)
CS 105 or CS 115	Introduction to Computer Programming Object-Oriented Programming I	2
Humanities and Social Science Requirements		(21)
See Illinois Tech Core Curriculum, sections B and C (p. 24)		21
Interprofessional Projects (IPRO)		(6)
See Illinois Tech Core Curriculum, section E (p. 25)		6
Free Electives		(12)
Select 12 credit hours		12
Total Credit Hours		126

Bachelor of Science in Physics Curriculum

Semester 1		Semester 2		Year 1
	Credit Hours		Credit Hours	Credit Hours
PHYS 100	2	PHYS 221		4
PHYS 123	4	CHEM 125		4
CHEM 124	4	MATH 152		5
MATH 151	5	Humanities or Social Sciences Elective		3
		15		16

Semester 1		Semester 2		Year 2
	Credit Hours		Credit Hours	Credit Hours
PHYS 223	4	PHYS 240		3
MATH 251	4	PHYS 348		3
CS 105 or 115	2	MATH 252		4
Social Sciences Elective	3	Social Sciences Elective (300+)		3
Humanities 200-level Course	3	Social Sciences Elective (300+)		3
		16		16

Semester 1		Semester 2		Year 3
	Credit Hours		Credit Hours	Credit Hours
PHYS 300	4	PHYS 304		3
PHYS 301	3	PHYS 309		3
PHYS 308	3	PHYS 406		3
PHYS 405	3	I PRO Elective I		3
Humanities Elective (300+)	3	Free Elective		3
		16		15

Semester 1		Semester 2		Year 4
	Credit Hours		Credit Hours	Credit Hours
PHYS 413	3	PHYS 414		3
PHYS 427	3	PHYS 440		3
PHYS 485	1	PHYS 485		1
I PRO Elective II	3	Math Elective, 300-level or above		3
Humanities Elective (300+)	3	Free Elective		3
Free Elective	3	Free Elective		3
		16		16

Total Credit Hours: 126

Step 2: NLU MAT SEC – Physical Sciences, Physics

SEC Physics Licensure Required Courses	Clinical Hours	SH	Suggested Term
EPS 511 Human Learning and Development in Instructional Contexts	-	2	YR 3, SM 2 as Free Elective
<i>Biology*</i>	-	-	YR 3-4, Summer
<i>Earth and Space Science*</i>	-	-	YR 3-4, Summer
ILTS Physics Content Test #116 Must Be Passed Before Taking SEC 502, SPE 500, or FND 510			
SPE 500 Introduction to and Methods of Teaching Students with Disabilities	15	3	YR 4, SM 1 as Free Elective
SEC 502 Introduction to Teaching at the Secondary Level	30	3	YR 4, SM 2 as Free Elective
FND 510 History and Philosophy of Education	-	2	YR 4, SM 2 as Free Elective
RLP 540 Teaching Content Area Literacy at the Middle and Secondary Level	-	3	YR 4-5, Summer
<i>Environmental Science*</i>	-	-	YR 4-5, Summer
SEC 516 Methods for Teaching Physical Science at the Secondary Level	-	3	YR 5, Fall
SEC 581 D Practicum in Teaching at the K-12 and Secondary Level Physical Science	40	3	YR 5, Fall
CIL 505 Methods and Materials for Teaching English as a Second Language	20	3	YR 5, Fall
SEC 590 D Student Teaching Secondary School Physical Science	-	6	YR 5, Winter
Electives (choose one pair of courses) – required for MAT			
CIL 500 Foundations of ESL and Bilingual Education	20	3	YR 5, Spring
CIL 510 Assessment of ESL and Bilingual Education Students	20	3	
MGE 501 Introduction to Middle Grades Education: Young Adolescents in Context	15	3	
MGE 509 Integrated Curriculum in Middle Grades	-	3	
<i>(Choose two of the three below)</i>			
RLW 541 Teaching Writing	-	3	
RLL 520 Survey of Youth Literature	-	3	
RLR 502 Teaching Comprehension and Content Area Reading	-	3	
SPE 501 Educational and Diagnostic Assessment of Exceptional Children and Adolescents	10	3	
SPE 506 Frameworks, Perspectives and Collaboration in Special Education	15	3	

**Additional ISBE Required Deficiency Coursework*

Secondary Education Student Teaching Enrollment Requirements

Admission to and continuance in student teaching are contingent on the following actions.

Candidates must:

- Be accepted into the graduate program of National College of Education

- File, by the designated deadline, the application form for student teaching
- Submit to their advisor a report of a TB test taken within 90 days of the student teaching placement, results of criminal background check and acknowledgement of Mandated Reporter status form
- Turn in a signed log of all the pre-clinical hours specified in their pre-clinical hours required for the program
- Complete all of their licensure courses except for SEC 590D (Student Teaching)
- Pass all methods courses at National Louis University with a grade no lower than a B
- Participate in faculty assessment and receive approval of his or her portfolio (Livetext)
- Provide evidence of emotional stability, adequate personality adjustment and competency as indicated by licensure coursework and departmental assessments

Appendix B: IIT and NLU – B.S. in Chemistry & M.A.T. SEC Physical Sciences- Chemistry

Step I: IIT B.S. in Chemistry

Required Courses

Code	Title	Credit Hours
Chemistry Requirements		(54)
CHEM 100	Introduction to the Profession	2
CHEM 124	Principles of Chemistry I with Laboratory	4
CHEM 125	Principles of Chemistry II with Laboratory	4
CHEM 237	Organic Chemistry I	4
CHEM 239	Organic Chemistry II	3
CHEM 240	Organic Chemistry Laboratory	2
CHEM 247	Analytical Chemistry	3
CHEM 321	Instrumental Analysis	4
CHEM 343	Physical Chemistry I	3
CHEM 344	Physical Chemistry II	4
CHEM 415	Inorganic Chemistry	3
CHEM 416	Advanced Chemistry Laboratory	3
CHEM 434	Spectroscopic Methods in Identification and Analysis	4
CHEM 451	Undergraduate Seminar	3
CHEM 485	Chemistry Colloquium	1
CHEM 485	Chemistry Colloquium	1
Select two CHEM electives ¹		6
Biology Requirements		(6-7)
BIOL 107 or BIOL 115	General Biology Lectures Human Biology	3
BIOL 401 or BIOL 403	Introductory Biochemistry Biochemistry	3-4
Mathematics Requirements		(18)
MATH 151	Calculus I	5
MATH 152	Calculus II	5
MATH 251	Multivariate and Vector Calculus	4
MATH 252	Introduction to Differential Equations	4
Physics Requirements		(8)
PHYS 123	General Physics I: Mechanics	4
PHYS 221	General Physics II: Electricity and Magnetism	4
Computer Science Requirement		(2)
CS 105 or CS 110	Introduction to Computer Programming Computing Principles	2
Humanities and Social Sciences Requirements		(21)
See Illinois Tech Core Curriculum, sections B and C (p. 24)		21
Interprofessional Projects (IPRO)		(6)
See Illinois Tech Core Curriculum, section E (p. 25)		6
Free Electives		(12)
Select 12 credit hours		12
Total Credit Hours		127-128

¹ Students may choose from CHEM 410, CHEM 450, CHEM 454, CHEM 455, CHEM 470, CHEM 487, and CHEM 500+ level courses. Students planning on taking CHEM 487 must complete CHEM 450 in a previous semester and are only required to take one semester of CHEM 485.

Bachelor of Science in Chemistry Curriculum

Semester 1		Semester 2		Year 1
	Credit Hours		Credit Hours	Credit Hours
CHEM 124	4	CHEM 100		2
CS 105 or 110	2	CHEM 125		4
MATH 151	5	MATH 152		5
Humanities 200-level Course	3	PHYS 123		4
		Social Sciences Elective		3
		14		18

Semester 1		Semester 2		Year 2
	Credit Hours		Credit Hours	Credit Hours
CHEM 237	4	CHEM 239		3
BIOL 107 or 115	3	CHEM 240		2
MATH 251	4	CHEM 247		3
PHYS 221	4	MATH 252		4
Humanities or Social Sciences Elective	3	Humanities Elective (300+)		3
		18		15

Semester 1		Semester 2		Year 3
	Credit Hours		Credit Hours	Credit Hours
CHEM 321	4	CHEM 344		4
CHEM 343	3	CHEM 434		4
Chemistry Elective ¹	3	CHEM 485		1
I PRO Elective I	3	Humanities Elective (300+)		3
Social Sciences Elective (300+)	3	Free Elective		3
		16		15

Semester 1		Semester 2		Year 4
	Credit Hours		Credit Hours	Credit Hours
CHEM 415	3	CHEM 416		3
CHEM 451	3	CHEM 485		1
BIOL 401 or 403	3-4	Chemistry Elective ¹		3
Free Elective	3	I PRO Elective II		3
Free Elective	3	Social Sciences Elective (300+)		3
		Free Elective		3
		15-16		16

Total Credit Hours: 127-128

¹ Students may choose from CHEM 410, CHEM 450, CHEM 454, CHEM 455, CHEM 470, CHEM 487, and CHEM 500+ courses. Students planning on taking CHEM 487 must take CHEM 450 in a previous semester and are only required to take one semester of CHEM 485.

Note: CHEM 321, CHEM 434, CHEM 415 and CHEM 451 are not offered every semester. The curriculum may differ in semesters five through eight depending on course offerings.

Step 2: NLU MAT SEC – Physical Sciences, Chemistry

SEC Chemistry Licensure Required Courses	Clinical Hours	SH	Suggested Term
EPS 511 Human Learning and Development in Instructional Contexts	-	2	YR 3, SM 2 as Free Elective
<i>Environmental Science*</i>	-	-	<i>YR 3-4, Summer</i>
<i>Earth and Space Science*</i>	-	-	<i>YR 3-4, Summer</i>
ILTS Chemistry Content Test #106 Must Be Passed Before Taking SEC 502, SPE 500, or FND 510			
SPE 500 Introduction to and Methods of Teaching Students with Disabilities	15	3	YR 4, SM 1 as Free Elective
SEC 502 Introduction to Teaching at the Secondary Level	30	3	YR 4, SM 2 as Free Elective
FND 510 History and Philosophy of Education	-	2	YR 4, SM 2 as Social Science Elective or Other
RLP 540 Teaching Content Area Literacy at the Middle and Secondary Level	-	3	YR 4-5, Summer
SEC 516 Methods for Teaching Physical Science at the Secondary Level	-	5	YR 5, Fall
SEC 581 D Practicum in Teaching at the K-12 and Secondary Level Physical Science	40	3	YR 5, Fall
CIL 505 Methods and Materials for Teaching English as a Second Language	20	3	YR 5, Fall
SEC 590 D Student Teaching Secondary School Physical Science	-	6	YR 5, Winter
Electives (choose one pair of courses) – required for MAT			
CIL 500 Foundations of ESL and Bilingual Education	20	3	YR 5, Spring
CIL 510 Assessment of ESL and Bilingual Education Students	20	3	
MGE 501 Introduction to Middle Grades Education: Young Adolescents in Context	15	3	
MGE 509 Integrated Curriculum in Middle Grades	-	3	
<i>(Choose two of the three below)</i>			
RLW 541 Teaching Writing	-	3	
RLL 520 Survey of Youth Literature	-	3	
RLR 502 Teaching Comprehension and Content Area Reading	-	3	
SPE 501 Educational and Diagnostic Assessment of Exceptional Children and Adolescents	10	3	
SPE 506 Frameworks, Perspectives and Collaboration in Special Education	15	3	

**Additional ISBE Required Deficiency Coursework*

Secondary Education Student Teaching Enrollment Requirements

Admission to and continuance in student teaching are contingent on the following actions.

Candidates must:

- Be accepted into the graduate program of National College of Education
- File, by the designated deadline, the application form for student teaching

- Submit to their advisor a report of a TB test taken within 90 days of the student teaching placement, results of criminal background check and acknowledgement of Mandated Reporter status form
- Turn in a signed log of all the pre-clinical hours specified in their pre-clinical hours required for the program
- Complete all of their licensure courses except for SEC 590D (Student Teaching)
- Pass all methods courses at National Louis University with a grade no lower than a B
- Participate in faculty assessment and receive approval of his or her portfolio (Livetext)
- Provide evidence of emotional stability, adequate personality adjustment and competency as indicated by licensure coursework and departmental assessments

Appendix C: IIT and NLU – B.S. in Biology & M.A.T. SEC, Biological Sciences

Step I: IIT B.S. in Biology

Required Courses

Code	Title	Credit Hours
Biology Requirements		(34)
BIOL 100	Introduction to the Profession	2
BIOL 107	General Biology Lectures	3
BIOL 109	General Biology Laboratory	1
BIOL 115	Human Biology	3
BIOL 117	Human Biology Laboratory	1
BIOL 210	Microbiology	3
BIOL 214	Genetics	3
BIOL 225	Microbiology Laboratory	2
BIOL 401	Introductory Biochemistry	3
BIOL 402	Metabolic Biochemistry	3
BIOL 430	Human Physiology	3
BIOL 445	Cell Biology	3
BIOL 451	Biological Literature	2
BIOL 495	Biology Colloquium	1
BIOL 495	Biology Colloquium	1
Senior Biology Laboratory Requirements		(6)
Select two courses from the following:		6
BIOL 404	Biochemistry Laboratory	3
BIOL 431	Animal Physiology Laboratory	3
BIOL 446	Cell Biology Laboratory	3
BIOL 455	Macromolecular Techniques	3
Biology Electives		(12)
Select 12 credit hours		12
Mathematics Requirements		(13)
MATH 151	Calculus I	5
MATH 152	Calculus II	5
MATH 425	Statistical Methods	3
Chemistry Requirements		(18)
CHEM 124	Principles of Chemistry I with Laboratory	4
CHEM 125	Principles of Chemistry II with Laboratory	4
CHEM 237	Organic Chemistry I	4
CHEM 239	Organic Chemistry II	3
CHEM 247	Analytical Chemistry	3
Physics Requirements		(11)
PHYS 123	General Physics I: Mechanics	4
PHYS 221	General Physics II: Electricity and Magnetism	4
PHYS 224	General Physics III for Engineers	3
Computer Science Requirement		(2)
CS 105	Introduction to Computer Programming	2
or CS 110	Computing Principles	
Interprofessional Projects		(6)
See Illinois Tech Core Curriculum, section E (p. 25)		6
Humanities and Social Science Requirements		(21)
See Illinois Tech Core Curriculum, sections B and C (p. 24)		21
Free Elective		(3)
Select three credit hours		3
Total Credit Hours		126

Bachelor of Science in Biology Curriculum

Semester 1		Semester 2		Year 1
	Credit Hours		Credit Hours	Credit Hours
BIOL 100	2	BIOL 115	3	3
BIOL 107	3	BIOL 117	1	1
BIOL 109	1	CHEM 125	4	4
CHEM 124	4	MATH 152	5	5
MATH 151	5	Humanities 200-level Course	3	3
		15		16

Semester 1		Semester 2		Year 2
	Credit Hours		Credit Hours	Credit Hours
BIOL 214	3	BIOL 210	3	3
CHEM 237	4	BIOL 225	2	2
PHYS 123	4	CHEM 239	3	3
Social Sciences Elective	3	PHYS 221	4	4
Humanities or Social Sciences Elective	3	Humanities Elective (300+)	3	3
		17		15

Semester 1		Semester 2		Year 3
	Credit Hours		Credit Hours	Credit Hours
BIOL 401	3	BIOL 402	3	3
Senior Biology Laboratory Elective ¹	3	BIOL 430	3	3
CHEM 247	3	I PRO Elective I	3	3
PHYS 224	3	CS 105 or 110	2	2
Social Sciences Elective (300+)	3	MATH 425	3	3
		Humanities Elective (300+)	3	3
		15		17

Semester 1		Semester 2		Year 4
	Credit Hours		Credit Hours	Credit Hours
BIOL 445	3	BIOL 451	2	2
BIOL 495	1	BIOL 495	1	1
Senior Biology Laboratory Elective ¹	3	I PRO Elective II	3	3
Biology Elective	3	Biology Elective	3	3
Biology Elective	3	Biology Elective	3	3
Free Elective	3	Social Sciences Elective (300+)	3	3
		16		15

Total Credit Hours: 126

¹ Choose from the following courses: BIOL 404, BIOL 431, BIOL 446, or BIOL 455.



Step 2: NLU MAT SEC – Biological Sciences

SEC Biology Licensure Required Courses	Clinical Hours	SH	Suggested Term
EPS 511 Human Learning and Development in Instructional Contexts	-	2	YR 3, SM 2 as Humanities Elective
<i>Environmental Science*</i>	-	-	<i>YR 3-4, Summer</i>
<i>Earth and Space Science*</i>	-	-	<i>YR 3-4, Summer</i>
ILTS Biology Content Test #105 Must Be Passed Before Taking SEC 502, SPE 500, or FND 510			
SPE 500 Introduction to and Methods of Teaching Students with Disabilities	15	3	YR 4, SM 1 Free Elective
SEC 502 Introduction to Teaching at the Secondary Level	30	3	YR 4, SM 2 as Biology Elective
FND 510 History and Philosophy of Education	-	2	YR 4, SM 2 as Social Science Elective
RLP 540 Teaching Content Area Literacy at the Middle and Secondary Level	-	3	YR 4-5, Summer
SEC 516 Methods for Teaching Physical Science at the Secondary Level	-	3	YR 5, Fall
SEC 581 A Practicum in Teaching at the K-12 and Secondary Level Biological Science	40	3	YR 5, Fall
CIL 505 Methods and Materials for Teaching English as a Second Language	20	3	YR 5, Fall
SEC 590 A Student Teaching Secondary School Biological Science	-	6	YR 5, Winter
Electives (choose one pair of courses) – required for MAT			
CIL 500 Foundations of ESL and Bilingual Education	20	3	YR 5, Spring
CIL 510 Assessment of ESL and Bilingual Education Students	20	3	
<i>(Choose two of the three below)</i>	-	3	
RLW 541 Teaching Writing	-	3	
RLL 520 Survey of Youth Literature	-	3	
RLR 502 Teaching Comprehension and Content Area Reading	-	3	
MGE 501 Introduction to Middle Grades Education: Young Adolescents in Context	15	3	
MGE 509 Integrated Curriculum in Middle Grades	-	3	
SPE 501 Educational and Diagnostic Assessment of Exceptional Children and Adolescents	10	3	
SPE 506 Frameworks, Perspectives and Collaboration in Special Education	15	3	

**Additional ISBE Required Deficiency Coursework*

Secondary Education Student Teaching Enrollment Requirements

Admission to and continuance in student teaching are contingent on the following actions.

Candidates must:

- Be accepted into the graduate program of National College of Education

- File, by the designated deadline, the application form for student teaching
- Submit to their advisor a report of a TB test taken within 90 days of the student teaching placement, results of criminal background check and acknowledgement of Mandated Reporter status form
- Turn in a signed log of all the pre-clinical hours specified in their pre-clinical hours required for the program
- Complete all of their licensure courses except for SEC 590A (Student Teaching)
- Pass all methods courses at National Louis University with a grade no lower than a B
- Participate in faculty assessment and receive approval of his or her portfolio (Livetext)
- Provide evidence of emotional stability, adequate personality adjustment and competency as indicated by licensure coursework and departmental assessments

Appendix D: IIT and NLU – B.S. in Applied Mathematics & M.A.T. SEC, Mathematics

Step I: IIT B.S. in Applied Mathematics

Required Courses

Code	Title	Credit Hours
Applied Mathematics Requirements		(42)
MATH 100	Introduction to the Profession	3
MATH 151	Calculus I	5
MATH 152	Calculus II	5
MATH 230	Introduction to Discrete Math	3
MATH 251	Multivariate and Vector Calculus	4
MATH 252	Introduction to Differential Equations	4
MATH 332	Elementary Linear Algebra	3
MATH 350	Introduction to Computational Mathematics	3
MATH 380	Introduction to Mathematical Modeling	3
MATH 400	Real Analysis	3
Select one of the following:		3
MATH 410	Number Theory	3
MATH 430	Applied Algebra	3
MATH 431	Computational Algebraic Geometry	3
MATH 454	Graph Theory and Applications	3
MATH 475	Probability	3
Applied Mathematics Electives		(18)
Select 18 credit hours ¹		18
Minor Requirement		(15)
Select five related courses from an area outside of applied mathematics		15
Computer Science Requirements		(4-6)
Select one of the following sequences:		4-6
CS 115 & CS 116	Object-Oriented Programming I and Object-Oriented Programming II	4
CS 104 & CS 201	Introduction to Computer Programming for Engineers and Accelerated Introduction to Computer Science	6
CS 105 & CS 201	Introduction to Computer Programming and Accelerated Introduction to Computer Science	6
Science Requirement		(4)
PHYS 123	General Physics I: Mechanics	4
Science Electives		(9)
Select nine credit hours		9
Humanities and Social Science Requirements		(21)
See Illinois Tech Core Curriculum, sections B and C (p. 24)		21
Interprofessional Projects (IPRO)		(6)
See Illinois Tech Core Curriculum, section E (p. 25)		6
Free Electives		(9)
Select nine credit hours		9

Minimum degree credits required: 128

¹ Applied mathematics electives are to be chosen after consultation with an academic adviser. Student goals, interests, and course availability should be determining factors in this selection process. The optional specializations on the Specializations tab may also serve as a guide to applied mathematics elective selection.

Bachelor of Science in Applied Mathematics Curriculum

Semester 1		Credit Hours	Semester 2		Credit Hours
MATH 100		3	MATH 152		5
MATH 151		5	MATH 230		3
Computer Science Course ¹		2	Computer Science Course ¹		2
Science Elective		3	PHYS 123		4
Humanities 200-level Course		3	Social Sciences Elective		3
16			17		
Semester 1		Credit Hours	Semester 2		Credit Hours
MATH 251		4	MATH 252		4
MATH 332		3	MATH 380		3
Minor Elective		3	Minor Elective		3
Science Elective		3	Science Elective		3
Humanities or Social Sciences Elective		3	Social Sciences Elective (300+)		3
16			16		
Semester 1		Credit Hours	Semester 2		Credit Hours
MATH 430 or 431 ²		3	MATH 350		3
MATH 475		3	MATH 410 or 454 ²		3
Applied Mathematics Elective ³		3	Applied Mathematics Elective ³		3
Minor Elective		3	I PRO Elective I		3
Humanities Elective (300+)		3	Minor Elective		3
Free Elective		3			
18			15		
Semester 1		Credit Hours	Semester 2		Credit Hours
MATH 400		3	I PRO Elective II		3
Minor Elective		3	Applied Mathematics Elective ³		3
Applied Mathematics Elective ³		3	Applied Mathematics Elective ³		3
Social Sciences Elective (300+)		3	Humanities Elective (300+)		3
Free Elective		3	Free Elective		3
15			15		

Total Credit Hours: 128

- ¹ Students must complete one of the following computer science sequences: CS 115 and CS 116, CS 104 and CS 201, or CS 105 and CS 201.
- ² Applied mathematics majors are required to take one of the following: MATH 410, MATH 430, MATH 431, or MATH 454. MATH 430 and MATH 431 are offered only during fall semesters; MATH 410 and MATH 454 are offered only during spring semesters. If a student chooses to take only one of these courses, then the other slot is to be interpreted as an applied mathematics elective.
- ³ Applied mathematics electives are to be chosen after consultation with an academic adviser. Student goals, interests, and course availability should be determining factors in this selection process. The optional specializations on the Specializations tab may also serve as a guide to applied mathematics elective selection.

Step 2: NLU MAT SEC – Mathematics

SEC Mathematics Licensure Required Courses	Clinical Hours	SH	Suggested Term
EPS 511 Human Learning and Development in Instructional Contexts	-	2	YR 3, SM 2 as Minor Elective
<i>History of Math*</i>	-	-	YR 3-4, Summer
ILTS Mathematics Content Test #208 Must Be Passed Before Taking SEC 502, SPE 500, or FND 510			
SPE 500 Introduction to and Methods of Teaching Students with Disabilities	15	3	YR 4, SM 1 Free Elective
SEC 502 Introduction to Teaching at the Secondary Level	30	3	YR 4, SM 2 as Free Elective
FND 510 History and Philosophy of Education	-	2	YR 4, SM 2 as Humanities or Minor Elective
RLP 540 Teaching Content Area Literacy at the Middle and Secondary Level	-	3	YR 4-5, Summer
SEC 516 Methods for Teaching Physical Science at the Secondary Level	-	3	YR 5, Fall
SEC 581 C Practicum in Teaching at the K-12 and Secondary Level Mathematics	40	3	YR 5, Fall
CIL 505 Methods and Materials for Teaching English as a Second Language	20	3	YR 5, Fall
SEC 590 C Student Teaching Secondary School Mathematics	-	6	YR 5, Winter
Electives (choose one pair of courses) – required for MAT			
CIL 500 Foundations of ESL and Bilingual Education	20	3	YR 5, Spring
CIL 510 Assessment of ESL and Bilingual Education Students	20	3	
<i>(Choose two of the three below)</i>			
RLW 541 Teaching Writing	-	3	
RLL 520 Survey of Youth Literature	-	3	
RLR 502 Teaching Comprehension and Content Area Reading	-	3	
MGE 501 Introduction to Middle Grades Education: Young Adolescents in Context	15	3	
MGE 509 Integrated Curriculum in Middle Grades	-	3	
SPE 501 Educational and Diagnostic Assessment of Exceptional Children and Adolescents	10	3	
SPE 506 Frameworks, Perspectives and Collaboration in Special Education	15	3	

**Additional ISBE Required Deficiency Coursework*

Secondary Education Student Teaching Enrollment Requirements

Admission to and continuance in student teaching are contingent on the following actions.

Candidates must:

- Be accepted into the graduate program of National College of Education
- File, by the designated deadline, the application form for student teaching
- Submit to their advisor a report of a TB test taken within 90 days of the student teaching placement, results of criminal background check and acknowledgement of Mandated Reporter status form
- Turn in a signed log of all the pre-clinical hours specified in their pre-clinical hours required for the program
- Complete all of their licensure courses except for SEC 590C (Student Teaching)
- Pass all methods courses at National Louis University with a grade no lower than a B
- Participate in faculty assessment and receive approval of his or her portfolio (Livetext)
- Provide evidence of emotional stability, adequate personality adjustment and competency as indicated by licensure coursework and departmental assessments