

INDIANA COMMISSION FOR HIGHER
EDUCATION

New Program Proposal Form For BPE
Authorized Institutions

B.S. in Applied Mathematics To Be Offered by MathTrack Institute

Degree Award Level²: Bachelor's Degree

Mode of Delivery (In-person or Online³): Online

Career Relevant/Out-of-Classroom Experiences⁴: Job Embedded Apprenticeship

Suggested CIP Code⁵ for Program: 27.0399, 13.1311

Name of Person Preparing this Form: Dr. Kevin Berkopes

Telephone Number and Email Address: 765-894-0093; Kevin@mathtrack.co

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1. PROGRAM OBJECTIVES: Describe what the program is designed to achieve and explain how it is structured in order to accomplish the objectives.

PROGRAM OBJECTIVES

MathTrack Institute's BS in Applied Mathematics Program is committed to shaping well-rounded professionals with a profound understanding of mathematics and its applications in industry. By fostering a dynamic learning environment that integrates academic theory with apprenticeship-based practice, the program ensures students are well-prepared and equipped to make meaningful contributions to their professions and communities. With a focus on apprenticeship-based learning, mentorship, and applying industry-relevant skills, the program paves the way for students to thrive in their careers and embark on a journey of continuous growth and success. The bachelor's degree pathway aims to de-risk the initial employment of professionals for the employer, de-risk the student's choice to work in specific industries, and de-risk the deployment of an accredited program by the institution of higher education that recognizes skills and training as credit-bearing activities.

The BS in Applied Mathematics Program from MathTrack Institute (MTI) is designed to teach the objectives and goals below, which will prepare the student *while* working full-time as a certified apprentice in partnership with their employer. The student will be enabled to engage with entry-level, professional employment while under the mentorship and coaching of the program and confer their degree by competency-based, job-embedded asynchronous training modules, professional apprenticeship work credit, and by successfully passing their required professional licensure and certification exams for their industry.

The Applied Mathematics Program is structured to integrate theory with practice so that students are exposed to the recommended curriculum listed by the nationally recognized and vetted organizations of the specific industry where the degree seeker is apprenticed. The mathematics standards follow best practices from the National Council of Teachers of Mathematics (NCTM) Standards, the Mathematical Association of America (MAA) content for applied mathematics, and the Next Generation Science Standards in diverse STEM-based fields. An applied mathematics curriculum aims to create thoughtful, quantitative, and creative problem solvers who understand how to learn, adapt, and provide value rapidly in changing working environments. These competencies will further enable the student's employability to be verified by their employers while they remain an apprentice. This curriculum will be taught through the workforce pedagogy framework, where asynchronous modules mixed with semi-synchronous supports will be enacted in the students' daily professional work. The curriculum is structured to enable the students to be viably employed to respond to their community's needs and sustain that viable work while understanding the complexity of the two-year apprenticeship work environment. The curriculum is listed herein in Section II.

PROGRAM GOALS AND OUTCOMES

The Applied Mathematics Program from MTI is committed to offering the highest quality education in applied mathematics to rapidly respond to the community's needs for high-tech, creative, problem-solving, and workforce-ready professionals. That commitment is carried out through the educational process and through the performance standards students are expected to meet within the framework of their professional apprenticeship. To measure the effectiveness of the education process, the Applied Mathematics Program has established broad Goals and specific Outcomes for both the job-embedded coursework and the application of

these goals within the framework of professional work. These are outlined and represent the foundation of a comprehensive Assessment Plan that details how these Goals and Outcomes are assessed annually.

Goal 1. Students will be viable and competent in their work.

- 1.1 Students will be able to use applied mathematics competencies in their work.
- 1.2 Students will meet all professional requirements (HR) to be full-time employees of the employer partner.
- 1.3 Students will use professional judgment, teamwork and accountability.
- 1.4 Students will earn a livable wage while engaged in their studies.

Rationale: This content is a significant part of MTT's Workforce Development Pedagogy (WDP) paradigm for apprenticeship-based bachelor's programs of study. These competencies are optional for traditional applied mathematics programs because those programs are focused on the goal of eventual employment. The rigor of this degree path is to require viable work while demonstrating these assessment goals. Through the WDP approach, Enactivism frames the cognitive science approach so that students are employed as apprentices and assessed through their actions in work. These competencies are essential to support the professional in understanding workplace and job-embedded learning practices while engaged with professional work and employment.

Goal 2. Students will demonstrate technology platform capabilities.

- 2.1 Students will be introduced to all technology, systems, and requisite frameworks for viability in their work.
- 2.2 Students will integrate their MathTrack Institute technology frameworks with their work frameworks.
- 2.3 Students will integrate mathematics mindsets by applying them to their work-based experiences and adapting to the needs of their employers effectively.

Rationale: This content is a significant part of MTT's Workforce Development Pedagogy (WDP) paradigm for apprenticeship-based bachelor's programs of study. These competencies are not required for traditional applied mathematics programs because those programs are focused on the goal of eventual employment. The rigor of this degree path is to show evidence of life-long learning and adaptability skills while demonstrating these assessment goals. Through the WDP approach, lifelong learning continuously takes advantage of and pursues opportunities in various activities and settings to improve personal and professional skills. These competencies are essential to support the professional in understanding workplace, industry, and job-embedded learning practices while engaged with professional work and employment.

Goal 3. Students will demonstrate the ability to apply mathematics content to think critically.

- 3.1. Students will understand systems-oriented problem-solving and how they apply them to their work environment.
- 3.2. Students will design their work experience and set goals with their employer for work viability
- 3.3. Students will understand the work expectations of their employer as quantitative and qualitative measures.
- 3.4. Students will understand the plan of study expectations of MTT as quantitative and qualitative measures.

Rationale: This content is a significant part of workforce development pedagogy. These competencies are optional for traditional applied mathematics programs because those programs are focused on the goal of eventual employment. The rigor of this degree path is to show evidence of workforce development and adaptability skills while demonstrating these assessment goals. Through the WDP approach, workforce development is the coordination of public and private sector policies and programs that provide individuals with the opportunity for a sustainable livelihood and help organizations achieve exemplary goals consistent with the societal context. These competencies are essential to support the professional in understanding workplace, industry, and job-embedded learning practices while engaged with professional work and employment.

Goal 4: Students will communicate effectively.

- 4.1. Students will communicate effectively and professionally with their employer.
- 4.2. Students can advocate for themselves, their fellow students, and their workplace teammates.
- 4.3. Students will communicate effectively and professionally with MTI

Rationale: Applied mathematics professionals communicate daily with various individuals, from peer colleagues to management and clients. The manner and complexity of communication will likewise vary with each situation. Applied mathematics professionals must communicate effectively to drive client value, assure advanced interdisciplinary teamwork, and improve employer satisfaction with their work outputs.

Goal 5: The program will prepare students to pass all required professional certifications for content, policy, and federal approval of their expert work.

- 5.1. An adequate percentage of program graduates will successfully pass the required certifications for their professional work on the first attempt upon completing stages of their apprenticeship.
- 5.2. Program graduates will demonstrate overall mastery of the required assessments.
- 5.3. Program graduates will demonstrate overall mastery of the applied mathematics content required of their professional work as established by their industry standards.

Rationale: Upon successful completion of stages of their apprenticeship, completing the required certifications for the industry that their professional work is embedded within is required to confer credit. These certifications allow these professionals to work safely and at an expert level anywhere in the US. We position that professional and federally regulated certifications are key measures to workplace competency and the ability to demonstrate the ability to apply mathematics competencies. The federally recognized certifications are critical to viable and expert-level professional practice. As such, we expect our students to be highly prepared to take all certification assessments at stages of competence within their successful completion of the applied mathematics program and their apprenticeship.

Goal 6: The program will maintain a positive learning environment.

- 6.1. Students will express satisfaction with their professional apprenticeship.
- 6.2. Students will express satisfaction with academic modules and coursework.
- 6.3. Graduating students will express overall satisfaction with the program before graduation.
- 6.4. Alumni will express overall satisfaction with the program's quality.
- 6.5. Alumni will express overall satisfaction with the program's applicability in supporting viable work and successful career paths within that industry.

Rationale: To maximize learning and facilitate the competent application of knowledge, the modules, mentorship, and competency development alongside the professional apprenticeship environments in which students learn must be positive. We seek the same satisfaction in programming and client relations for the students they are asked to provide in their viable work. Students must be enabled to ask questions, be self-directed learners, and learn the value of mistake-making to evolve into expert-level applied mathematics professionals. This goal is oriented towards the induction of these professionals into their industry and establishing the ability to continue advancing their career paths within that industry.

Goal 7: The program will demonstrate a positive effect on the community.

- 7.1. Students will graduate from the program.
- 7.2. Program graduates will have fulfilled viable employment at their employer site for two years, meeting a community need.
- 7.3. Employers of program graduates will express overall satisfaction with graduate quality.
- 7.4. Employers of program graduates will seek to retain and develop the capacity of program graduates.
- 7.5. Students will increase their employability and financial strength and increase the economic viability of their community.

Rationale: The program is responding to the overwhelming need for more applied mathematics professionals in the community of the employer and student. MTI is mindful of our role to safeguard the community by de-risking the immediate employment of these professionals and ensuring that they obtain viability in work and learning the programmatic competencies. The program is committed to ensuring the employer community is well served by hiring and retaining our students post-graduation. The program is committed to ensuring the student employee is well served by viable employment and removing barriers to further induction into industry practices and future career paths within that industry.

PROGRAM STRUCTURE: List all courses in the program. Indicate course name, course number, and number of credit hours or clock hours for each course.

Total Course Hours: 4000 apprenticeship hours; 2000 coursework hours; 120 semester credit hours
Credit for Prior Learning (CPL) will be assessed and conferred based on 2000 hours of apprenticeship equivalent or up to 30 credit hours.

Check one:

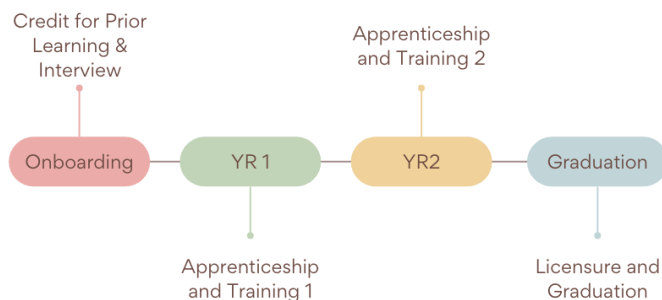
Quarter Hours
Semester Hours X
Clock Hours

Tuition: \$10,000 (\$5,000 per year)

Special Fees: No special fees are required.

Length of Program: 24 Months

BS Applied Mathematics Program of Study



APPLIED MATHEMATICS REQUIRED MAJOR COURSES		
COURSE NUMBER	COURSE TITLE	CREDIT HOURS
MATH 111	MATHEMATICAL FOUNDATIONS	3
MATH 112	APPLIED QUANTITATIVE REASONING	3
MATH 211	APPLICATIONS OF GEOMETRY AND ALGEBRA I	3
MATH 212	APPLICATIONS OF GEOMETRY AND ALGEBRA II	3
MATH 213	APPLICATIONS OF GEOMETRY AND FUNCTION ANALYSIS	3
MATH 311	ENACTED AND EMBODIED MATHEMATICS	3
MATH 312	APPLIED PROBABILITY AND STATISTICS	3
MATH 313	APPLIED CALCULUS AND FUNCTION ANALYSIS	3
MATH 411	APPLIED MATHEMATICS PROFESSIONAL CERTIFICATION I	3
MATH 412	APPLIED MATHEMATICS PROFESSIONAL CERTIFICATION II	3
TOTAL		30

REQUIRED MAJOR REGISTERED APPRENTICESHIP PROGRAM (RAP) YEAR I (2000 HOURS)		
COURSE NUMBER	COURSE TITLE	CREDIT HOURS
RAP 211	APPLIED APPRENTICESHIP: TEAMING AND APPRENTICESHIP I	3

RAP 212	APPLIED APPRENTICESHIP: MULTI-DISCIPLINARY APPRENTICESHIP I	3
RAP 213	APPLIED APPRENTICESHIP: MULTI-DISCIPLINARY RESEARCH AND DATA I	3
RAP 214	APPLIED APPRENTICESHIP: TECHNICAL APPLICATIONS I	3
RAP 215	APPLIED APPRENTICESHIP: LANGUAGE AND CULTURE I	3
TOTAL		15

REQUIRED MAJOR REGISTERED APPRENTICESHIP PROGRAM (RAP) YEAR II (2000 HOURS)		
COURSE NUMBER	COURSE TITLE	CREDIT HOURS
RAP 311	APPLIED MATHEMATICS COMPETENCY AND SCIENTIFIC TEAMING II	3
RAP 312	APPLIED MATHEMATICS COMPETENCY AND MULTIDISCIPLINARY TEAMING II	3
RAP 313	APPLIED MATHEMATICS COMPETENCY AND RESEARCH WITH DATA ANALYSIS II	3
RAP 314	APPLIED MATHEMATICS COMPETENCY IN TECHNICAL APPLICATIONS II	3
RAP 315	APPLIED MATHEMATICS COMPETENCY IN LANGUAGE AND CULTURE II	3
TOTAL		15

SCIENCE CORE REQUIRED COURSES: APPRENTICESHIP YEAR WAIVER CATALOG		
COURSE NUMBER	COURSE TITLE	CREDIT HOURS
COM 211	PROFESSIONAL COMMUNICATION AND COMPOSITION	3
COM 311	CROSS CULTURAL COMMUNICATION IN WORKPLACE	3
SCI 211	APPLIED SCIENCE INDUSTRY I	3
SCI 212	APPLIED CRITICAL PROBLEM SOLVING AND TEAMING I	3
SCI 311	APPLIED SCIENCE INDUSTRY II	3
SCI 411	APPLIED SCIENCE INDUSTRY III	3
SCI 312	APPLIED CRITICAL PROBLEM SOLVING AND TEAMING II	3

GEN 211	APPLIED WORKPLACE READINESS I	3
GEN 311	APPLIED WORKPLACE READINESS II	3
GEN 411	APPLIED WORKPLACE READINESS III	3
TOTAL		30

SCIENCE CORE ELECTIVES AVAILABLE BY SELECTION (TO FINISH 120CR REQUIREMENT)		
COURSE NUMBER	COURSE TITLE	CREDIT HOURS
MATH 314	ENACTED AND EMBODIED MATHEMATICS II	3
MATH 315	APPLIED MATHEMATICS TECHNOLOGIES	3
MATH 413	COMPLEXITY SCIENCE AND APPLIED MATHEMATICS DESIGN I	3
MATH 414	COMPLEXITY SCIENCE AND APPLIED MATHEMATICS DESIGN II	3
HUM 111	TRANSFORMATIVE BEHAVIOR I	3
HUM 211	TRANSFORMATIVE BEHAVIOR II	3
HUM 311	TRANSFORMATIVE CULTURE AND COMMUNITY I	3
HUM 411	TRANSFORMATIVE CULTURE AND COMMUNITY II	3
IL 111	APPLIED INFORMATION LITERACY IN SPECIAL EDUCATION I	3
IL 211	APPLIED INFORMATION LITERACY IN SPECIAL EDUCATION II	3
IL 311	APPLIED INFORMATION LITERACY IN SPECIAL EDUCATION AND COMMUNITY I	3
IL 411	APPLIED INFORMATION LITERACY IN SPECIAL EDUCATION AND COMMUNITY II	3
STS 111	INTRODUCTION TO APPLIED MATHEMATICS AND COMPUTER SCIENCE	3
STS 211	APPLIED MATHEMATICS FOR COMPUTER SCIENCE DESIGN	3
STS 311	APPLIED MATHEMATICS FOR COMPUTER SCIENCE SYSTEMS	3
STS 411	APPLIED MATHEMATICS FOR COMPUTER SCIENCE INNOVATIONS	3
TOTAL	AVAILABLE UP TO	48

DEGREE OVERVIEW	
PLAN OF STUDY	CREDITS
APPLIED MATHEMATICS MAJOR	30
SCIENCE CORE MAJOR	30
APPRENTICESHIP YEAR I	15 (2000 hrs)
APPRENTICESHIP YEAR II	15 (2000 hrs)
CREDIT FOR PRIOR LEARNING AND APPRENTICESHIP WAIVER	UP TO 30
SCIENCE CORE ELECTIVES	UP TO 48
Total: 120 TOTAL CREDITS REQUIRED FOR GRADUATION	

Number of Credit Clock Hrs in Specialty Courses: 60 / _____ Percentage: 50%

Number of Credit Clock Hrs in General Courses: 60 / _____ Percentage: 50%

If Applicable:

Number of Credit Clock Hrs in Liberal Art Courses: _____ / _____ Percentage: 0%

2. **LIBRARY:** Please provide information pertaining to the library located in your institution.

a. Location of library; Hours of student access; Part-time, full-time librarian/staff:

A physical library is not maintained for MathTrack Institute students. Instead, online knowledge-based resources exist to meet working professional students' apprenticeship, research, and educational needs. Online resources are available 24/7 for all MTI students through their MTI email and login. MathTrack Institute will also secure an online digital library service for all students as required by HLC and BPE accreditation. These resources and access to these resources are curated and staffed by a full-time MTI employee. They will remain accessible during and after completing the bachelor's program.

FACULTY [see full faculty tab in shared folder]

Total Number of Faculty in Program: 7

Full-Time: 7

Part-time: 0

List of Faculty Names	Degree or Diploma Earned	#Years of Working Experience in Specialty	# Years Teaching at School	#Years Teaching at Other	Full Time or Part Time
Dr. Azure Angelov	PhD	25	Founding	25	FT

			Faculty		
Dr. Kevin Berkopes	PhD	20	Founding Faculty	15	FT
Mr. Eric Bransteter	MS	15	Founding Faculty	10	FT
Mr. Charlie Johnson	MS	20	Founding Faculty	20	FT
Dr. Christine Nemcik	PhD	25	Founding Faculty	25	FT
Mr. Tobi Owofade	MS	5	Founding Faculty	5	FT
Mr. Nick Williams	MBA	15	Founding Faculty	15	FT

Rationale for the Program

a. Institutional Rationale (Alignment with Institutional Mission and Strengths)

- Why is the institution proposing this program and how does it build upon institutional strengths?

MathTrack Institute (MTI) proposes an apprenticeship-based Bachelor's in Applied Mathematics to meet the core pillars of the [RAISE THE BAR](#) initiative released by the Federal Department of Education in the US. The goal is to support the core pillars of affordability, scalability, and applicability of a bachelor's degree so that more highly trained applied mathematics professionals are available and employable in our communities.

MTI's framework for training and development responds to advancements in education, coupled with the needs of the marketplace, local communities, and commercial activity, to meet the need for a highly educated and skilled labor pool in science, technology, engineering, and mathematics (STEM). Through the apprenticeship model, MTI aims to decrease the financial burden on candidates and heighten the connectivity between mathematics and professional training to the apprentice's daily professional work. This has broader implications for equity in STEM talent pipelines, specifically for the full participation of women, persons with disabilities, and other underrepresented groups in STEM beyond the immediate implications of improved STEM education and educator development at all levels. MTI's program of study also significantly increases the number of mathematics majors in communities, increasing public scientific literacy and public engagement with science and technology. Research on this proposed program should also impact the development of diverse, globally competitive STEM workforces and increase partnerships between academia and industry. The Applied Mathematics Program builds upon our institutional strengths by focusing specifically on quantitative and applied mathematical content while serving our community's needs by making positive differences in our students' lives.

- How is it consistent with the mission of the institution and how does this program fit into the institution's strategic plan (please provide a link to the strategic plan)?

MathTrack Institute (MTI) was established in Indianapolis, IN, in 2022 based on the overwhelming demand for high-quality applied mathematics professionals within the context of education. MTI developed the Workforce Development Pedagogical (WDP) approach to offer workforce-specific pathways where the viability of work is established through our Registered Apprenticeship Program (RAP) with the Department of Labor (DoL) and adheres to the best practices of nationally recognized licensure organizations like the Council for the Accreditation of Educator Preparation (CAEP) licenses for professional work in the field of applied mathematics industries. The mission of the Institute is a commitment to working with state and local leaders to elevate the applied mathematics professions by investing in and scaling up high-quality and affordable career pathways and supporting efforts to prepare better, develop, and retain talented and diverse professionals in applied mathematics fields.

b. State Rationale: General

- How does this program address state priorities as reflected in the Commission’s most recent strategic plan [*Reaching Higher In a State of Change?*](#)

MathTrack Institute’s (MTI) Applied Mathematics Program of Study seeks to contribute to the goals reflected in the Commission’s most recent strategic plan and that of the RAISE THE BAR initiative from the Federal Department of Education. The Reaching Higher Education Strategic Plan emphasizes, “With new and growing pressures emerging, driving our systems of higher learning to respond and adapt to the needs of learners today to adjust to the expanding and diversifying economy.” The Applied Mathematics Program is proposed to support the growing pressures needed in communities across the US to find, retain, and recruit high-quality applied mathematics professionals, including professional STEM educators. An apprenticeship-based degree in applied mathematics seeks to increase affordable pathways for upskilling and credentialing while increasing the value of the job-embedded training and academic content. The Applied Mathematics Program will help ensure students can viably work in the rapidly changing job market and transform their professional certifications and credentials. Strong academic preparation in life-long learning and adaptability skills are essential for the jobs of today and tomorrow that require higher levels of critical thinking, adaptability, problem-solving, and strong written and verbal communication.

Beyond supporting the Reaching Higher Education Strategic Plan globally, the Applied Mathematics Program supports key metrics in the state’s blueprint, specifically *Pathways and Transitions, Affordability and Community Engagement*. These align directly with the RAISE THE BAR initiative’s core pillars and include *leadership development and diversity in the STEM workforce*.

Pathways and Transitions: A key difference between an apprenticeship-based degree and a traditional bachelor’s degree is rigor for applying competencies and conferring credit for viable professional work. General education courses help students develop a higher level of thinking and prepare them to be employable someday. MTI’s proposed bachelor’s degree program of study requires competency and viability of work to confer credit and continuity in the programming. An apprenticeship-based degree pathway specifically focused on serving underserved professional students with some credit and no credentials (SCNC) would choose this option because of its affordability and transparency of pathways within the profession compared to the traditional bachelor’s pathway. The program strives to focus on the mindset of a commitment to lifelong learning, workforce development, and de-risking the early employment of professionals for applied mathematics industries.

Affordability: As stated in the Commission’s most recent strategic plan, “States and institutions are facing expectations to prove the value of a credential in terms of wage outcomes and job placement—all in relation to the issues of affordability and student debt.” MathTrack Institute’s (MTI) apprenticeship-based Bachelor’s in Applied Mathematics program aims to be affordable for all students by keeping the tuition and fees low and requiring the program to be embedded in full-time, salaried work. The proposed program is Indiana’s most affordable Bachelor’s degree program, supporting the mission of the Commission’s most recent strategic plan and the Federal Department of Education RAISE THE BAR initiative.

Community Engagement: The design of this program means an integration between the MathTrack Institute (MTI), the employer, and the community that benefits both the learner and the hiring organization and their values. MTI’s commitment to standing against racism and systemic injustice by removing barriers to inclusivity and diversity in STEM-based fields is its Mission, Values, and commitment to social justice.

Leadership Development: The core pillars mentioned in the Commission’s recent strategic plan also seek to promote employee excellence, accessibility of career ladders, opportunities for professionals to lead beyond their initial roles and be compensated for additional responsibilities, and to expand distributed leadership models in the workplaces in our communities.

Diversity in Workforce: The core pillars mentioned in the Commission’s recent strategic plan also seek to promote and promote diversity throughout the work of employee recruitment, preparation, and retention and ensure that applied mathematics careers are available to people from all backgrounds who are eager to and pursue this type of professional work.

c. Evidence of Labor Market Need

- National, State, or Regional Need
 - Is the program serving a national, state, or regional labor market need? Please describe.

According to (2022) the National Assessment of Educational Progress (NAEP), we saw the most significant score declines in mathematics at grades 4 and 8 since initial assessments in 1990. In 2022, the average fourth-grade mathematics score decreased by 5 points and was lower than all previous assessment years going back to 2005; the average score was one point higher compared to 2003. The average eighth-grade mathematics score decreased by 8 points compared to 2019 and was lower than all previous assessment years dating back to 2003. In 2022, fourth- and eighth-grade mathematics scores declined for most states/jurisdictions and participating urban districts compared to 2019. Average scores are reported on NAEP mathematics scales in grades 4 and 8 that range from 0 to 500 (NAEP, 2023). The mathematical NAEP data from Indiana was especially dismal. Indiana was one of 43 states that saw a statistically significant drop in 4th-grade math scores from 2019 to 2023 (NAEP, 2023). Indiana was one of 51 states that saw a statistically significant drop in 8th-grade math scores from 2019-2023 (NAEP, 2023). According to national Title II data from the Secretary’s 10th Report on Teacher Workforce (2016), teacher education programs have experienced consistent and significant decreases in enrollment and completion since 2009. During AY 2012–13, a total of 499,800 individuals were enrolled in teacher preparation programs, a decrease of 20 percent (623,190) from enrolled individuals in AY 2011–12. This continued a trend of decreasing enrollment, following a 9 percent decrease between AY 2010–11(684,801 individuals enrolled) and AY 2011–12 (2016).

The issue became more prominent in the Secretary’s 11th Report on Teacher Workforce Title II report (2021), especially in mathematics. Specifically, “More states are reporting shortages of mathematics teachers. In AY 2013–14, shortages of mathematics teachers were reported in 44 states and jurisdictions; that number grew to 51 states and jurisdictions in AY 2017-18. Mathematics was the fifth most common subject area in which AY 2017–18 program completers, with 7% of program completers prepared to teach mathematics” (2021). Between AY 2013–14 and AY 2017–18, special education was the most reported subject area of teacher shortages, with mathematics and science trading places over the years for the second and third most reported shortage areas. Additionally, 51 states report a shortage of mathematics teachers, making it now the second most devastating chronic teacher shortage area behind special education (2021). The COVID pandemic and the natural retirement timeline of the baby boomers have transformed the STEM teacher shortage concerns from looming into a full-blown national crisis. To meet this need, we

must learn from previous efforts of STEM teacher recruitment and innovate to meet the new and unprecedented demand we currently face.

In response to the last decade of Title II and NAEP data, the US Departments of Education and Labor announced a new collaboration on July 27, 2023. The partnership is a series of new efforts to expand Registered Apprenticeships for educators and invest in teacher preparation programs. These efforts are meant to advance a key focus area of the Department of Education's Raise the Bar: Lead the World initiative to boldly improve learning conditions by eliminating educator shortages and build on a joint letter sent by the Secretaries of Education and Labor, which called on state education and workforce leaders to take action to address educator shortages (2023). This initiative specifically focuses on the implementation of an apprenticeship model as a means of educating and training teachers in shortage areas. The Pathways Alliance has developed new National Guidelines for Apprenticeship Standards (NGS) for Registered Apprenticeships for K-12 teachers to ensure quality standards. Only 34 states have a registered apprenticeship program (RAP) in teaching. MathTrack Institute (MTI) is the first and only Institute of Higher Education (IHE) RAP in Indiana and currently the only RAP in the country offering a secondary math teaching license. Additionally, MTI is the first RAP in the country to navigate the Council for the Accreditation of Educator Preparation (CAEP) process for national accreditation of a dual RAP/Educator Preparation Program (EPP) program. With this work, MTI is well-positioned to answer the call in its home state of Indiana and throughout the US for the demand in teaching as well as other applied mathematics industries.

d. Placement of Graduates

- Please describe the principal occupations and industries, in which the majority of graduates are expected to find employment.

All apprenticeship-based applied mathematics bachelor's degree graduates are expected to be employed to be admitted into the workforce-embedded program. The professional work of their apprenticeship means that we can guarantee that 100% of graduates and students are employed.

- If the program is primarily a feeder for graduate programs, please describe the principal kinds of graduate programs, in which the majority of graduates are expected to be admitted.

N/A

e. Job Titles

- List specific job titles and broad job categories that would be appropriate for a graduate of this program.
 - Applied mathematics teaching professionals
 - Applied mathematics nursing
 - Applied mathematics healthcare professionals
 - Applied mathematics software and engineering professionals
 - Applied mathematics data analysts and IT professionals

- Applied mathematics cloud and cyber security professionals

Information on Competencies, Learning Outcomes, and Assessment

f. Program Competencies or Learning Outcomes

- List the significant competencies or learning outcomes that students completing this program are expected to master, which will be included in the Indiana Credential Registry.

Competent Practice

MathTrack Institute's (MTI) apprenticeship-based bachelor's in applied mathematics program requires adherence to the Department of Labor's rubric for rigorous and effective apprenticeship programs. These competencies include:

- Professionalism Competencies
- Environmental Competencies
- Safety Competencies
- Planning and Goal Setting Competencies
- Workplace Execution competencies
- Professional Practice Competencies

Qualifications

MathTrack Institute's (MTI) apprenticeship-based bachelor's in applied mathematics program requires adherence to the industries required professional certifications. For example, in the STEM education sectors, these include:

- Indiana State Professional Educator Licensure Mathematics 5-12
- Praxis Pro Professional Capacity Assessment
- Praxis Content Assessment
- Praxis Teaching and Learning Assessment
- Registered Apprenticeship Assessment (2 years)

a. Assessment

- Summarize how the institution intends to assess students with respect to mastery of program competencies or learning outcomes.

MathTrack Institute's (MTI) apprenticeship-based bachelor's in applied mathematics program is designed to teach the objectives and goals stated above, preparing students to consistently deploy viable work while simultaneously passing their licensure and certification requirements for their industry. Student assessment of goal attainment occurs within the credit for prior learning, assessment of viable work through the apprenticeship rubrics and employer satisfaction, and the training and development to pass all required professional licensure and credential assessments. Student competency in training credits is assessed and evaluated through module-based formative and summative assessments; elective credits are

conferred through these best practice assessments. Rather than requiring reflective or project-based work, we believe that students required to apply their learning within the context of work is the best way to provide this type of professional with a supportive, engaging, and affordable learning experience.

6. Information on Composite Score, Licensure, Certification, and Accreditation

a. Federal Financial Responsibility Composite Score

- Provide the institution's most recent Federal Financial Responsibility Composite Score, whether published online, provided in written form by the U.S. Department of Education, or calculated by an independent auditor using the methodology prescribed by the U.S. Department of Education. Financials Included, no FRCS score currently.

b. State Licensure

- Does a graduate of this program need to be licensed by the State to practice their profession in Indiana and if so, will this program prepare them for licensure?
- If so, please identify: The STEM Educator sector requires a professional teaching license.
- The specific license(s) needed: Mathematics Teaching 5-12
- The State agency issuing the license(s): Indiana Department of Education

a. Professional Certification

- What are the professional certifications that exist for graduates of similar program(s)? National Board Certification for Educators for education sector professionals.
- Will a graduate of this program be prepared to obtain national professional certification(s) in order to find employment or to have substantially better prospects for employment in a related job in Indiana? Yes, regardless of industry and sector the requirements of a viable apprenticeship will be to obtain the national certifications required of that occupation.

- Please identify the single course or a sequence of courses that lead to each professional certification.

PROFESSIONAL CONTENT CERTIFICATION FOR APPLIED MATHEMATICS TEACHING PROFESSIONAL (PRAXIS CONTENT)		
COURSE NUMBER	COURSE TITLE	CREDIT HOURS
MATH 111	MATHEMATICAL FOUNDATIONS	3
MATH 112	APPLIED QUANTITATIVE REASONING	3
MATH 211	APPLICATIONS OF GEOMETRY AND ALGEBRA I	3
MATH 212	APPLICATIONS OF GEOMETRY AND ALGEBRA II	3
MATH 213	APPLICATIONS OF GEOMETRY AND FUNCTION ANALYSIS	3
MATH 311	ENACTED AND EMBODIED MATHEMATICS	3
MATH 312	APPLIED PROBABILITY AND STATISTICS	3
MATH 313	FUNCTIONS AND CALCULUS	3
MATH 411	APPLIED MATHEMATICS PROFESSIONAL CERTIFICATION I	3
MATH 412	APPLIED MATHEMATICS PROFESSIONAL CERTIFICATION II	3
TOTAL		30

PROFESSIONAL PEDAGOGICAL CERTIFICATION FOR APPLIED MATHEMATICS TEACHING PROFESSIONAL (PRAXIS PLT)		
COURSE NUMBER	COURSE TITLE	CREDIT HOURS
RAP 211	APPLIED APPRENTICESHIP: TEAMING AND APPRENTICESHIP I	3
RAP 212	APPLIED APPRENTICESHIP: MULTI-DISCIPLINARY APPRENTICESHIP I	3
RAP 213	APPLIED APPRENTICESHIP: MULTI-DISCIPLINARY RESEARCH AND DATA I	3
RAP 214	APPLIED APPRENTICESHIP: TECHNICAL APPLICATIONS I	3
RAP 215	APPLIED APPRENTICESHIP: LANGUAGE AND CULTURE I	3
TOTAL		15

PROFESSIONAL PEDAGOGICAL CERTIFICATION FOR APPLIED MATHEMATICS TEACHING PROFESSIONAL (PRAXIS PLT)		
COURSE NUMBER	COURSE TITLE	CREDIT HOURS
RAP 311	APPLIED MATHEMATICS COMPETENCY AND SCIENTIFIC TEAMING II	3
RAP 312	APPLIED MATHEMATICS COMPETENCY AND MULTIDISCIPLINARY TEAMING II	3
RAP 313	APPLIED MATHEMATICS COMPETENCY AND RESEARCH WITH DATA ANALYSIS II	3
RAP 314	APPLIED MATHEMATICS COMPETENCY IN TECHNICAL APPLICATIONS II	3
RAP 315	APPLIED MATHEMATICS COMPETENCY IN LANGUAGE AND CULTURE II	3
TOTAL		15

b. Professional Industry Standards/Best Practices

- Does the program curriculum incorporate professional industry standard(s) and/or best practice(s)? Yes. We require viable applications of all industry standards by requiring the students to be working full-time to be admitted to the bachelor's degree pathway and programming. Here is the alignment to the standards for industry in professional teaching that are aligned to each of MTT's goals for applied mathematics for teaching as an example.

CAEP	NCTM	INTASC	Indiana P-12 Standard Alignment	NBPTS
Goal 1: MathTrack Culture and Workforce Development				
MathTrack Performance Evaluation: Praxis Pro				
Sub Goals: <ol style="list-style-type: none"> 1.1. Students will feel welcomed and supported in the licensure training program. 1.2. Students will understand the growth mindset, predictive index, and their role in understanding their learning and their students' learning. 1.3. Students will understand the mathematical mindsets and their role in understanding their learning and their students' learning of mathematics. 1.4 Students will understand workforce pedagogy and the requirements to maintain and thrive in a professional employment environment. 				

1.5 Students will have provided all necessary compliance documents for full employment and enrollment into the MTI and licensure training program of study.

Standard R2: 2.1, 2.2, 2.3 Standard R3: 3.2 Standard R5: 5.3	Standard 2a, 2b, 2c, 3a, 3b, 3c, 4a, 4b, 4c, 4d, 4e, 4g, 6a, 6b, 6c, 6d 7a, 7b	Standard #1-5 9, 0	Standard 1: 1.1, 1.5, 1.6 Standard 2: 2.11 Standard 3: 3.14, 3.15, 3.8 Standard 5: 5.3, 5.4, 5.5 Standard 6: 6:10	Standard 1 Standard 3 Standard 4 Standard 8 Standard 9 Standard 10
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Goal 2: Technology and Platform Integration.

Sub Goals:

- 2.1. Students will understand the utility and ease of use of the entire MathTrack technology platform.**
- 2.2. Students will understand the utility and ease of use of the MathTrack curriculum, curriculum resources, and blended learning framework for mathematics.**
- 2.3. Students will understand MathSpace as a technology and adaptive curriculum platform.**
- 2.4 Students will understand Clever, Single-Sign on (SSO), and its utility for teaching and learning mathematics.**
- 2.5 Students access, use, and utility of virtual tutoring for their content preparation and the utility of virtual tutors in their classrooms with their students as part of blended learning.**
- 2.6 Students will learn best practices and industry standards for cyber security and FERPA compliance with sensitive student information and data.**

Standard R1: 1.1, 1.2, 1.3, 1.4 Standard R2: 2.1, 2.2, 2.3 Standard R3: 3.2	Standard 2a, 2b, 2c, 3a, 3b, 3c, 4a, 4b, 4c, 4d, 5a, 5b, 5c	Standard #1-8	Standard 1: 1.3 Standard 2: 2.6 Standard 3: 3.2, 3.3, 3.16	Standard 3 Standard 4 Standard 5 Standard 7
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Goal 3: Designing your Mathematics Class and Classroom Management.

Performance Evaluation: Praxis PLT Assessment

Sub Goals:

- 3.1. Students will understand the blended learning framework for mathematics pedagogy.**
- 3.2. Students will understand how to launch and maintain a blended learning mathematics classroom.**
- 3.3. Students will understand and continue to gain competency in best practices for classroom management in a mathematics classroom.**
- 3.4 Students will understand and incorporate best practices for utilizing technology and other resources, including peer-to-peer learning, as blending learning resources available to their students for learning mathematics.**

Standard R1: 1.1, 1.2, 1.3, 1.4	Standard 2a, 2b, 2c, 3a, 3b, 3c,4a, 4b, 4c, 4d, 4e, 4f, 4g, 5a, 5b, 5c	Standard #1-#10	Standard 2: 2.4, 2.5, 2.10 Standard 3: 3.8, 3.9 Standard 4: 4.7, 4.8 Standard 5: 5.1, 5.2, 5.4, 5.5, 5.6 Standard 6: 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.9	Standard 1 Standard 3 Standard 4 Standard 5 Standard 6 Standard 7
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Goal 4: Mathematical Knowledge for Teaching and Content Preparation.

Performance Evaluation: Praxis Content Assessment

Sub Goals:

- 4.1. All students will be prepared and have the highest probability of passing the Mathematics Praxis Content Assessment 5165.
- 4.2. Students will participate in diagnostic, assessment, and practice examinations before taking the Praxis 5165.
- 4.3. Students will understand and continue to gain competency in mathematics for teaching content knowledge, a nuanced mathematical content knowledge required explicitly for teachers.
- 4.4 Students will understand and continue to gain competency in mathematics for teaching curricular knowledge, a nuanced mathematical content knowledge required explicitly for teachers.

Standard R1: 1.1, 1.2, 1.3, 1.4 Standard R4: 4.1	Standard 1a, 1b, 1c, 1d, 1e 2a, 2b, 2c	Standard #1 Standard #4 Standard #5 Standard #7 Standard #8	Standard 1: 1.2 Standard 2: 2.1, 2.3, 2.7, 2.8, 2.9 Standard 3: 3.5, 3.13, 3.16 Standard 4: 4.1, 4.2, 4.3,	Standard 1 Standard 2 Standard 3 Standard 6
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Goal 5: The Role of Growth Mindset and Transformative Teaching Practices in the Mathematics Classroom.

Sub Goals:

- 5.1. Students will be able to define growth mindset and transformative education within the framework of mathematics teaching and learning.
- 5.2. Students will understand the nine mindsets of transformative education within the framework of mathematics teaching and learning.
- 5.3. Students will understand the empowerment mindset of transformative education within the framework of mathematics teaching and learning.
- 5.4 Students will understand the strengths-based living of transformative education within the framework of mathematics teaching and learning.
- 5.5 Students will understand the virtues and values of transformative education within the framework of mathematics teaching and learning.
- 5.6 Students will understand the confidence gap of transformative education within the framework of mathematics teaching and learning.
- 5.7 Students will understand the cognitive awareness, emotional intelligence, relational literacy, and healthy boundaries of transformative education within the framework of mathematics teaching and learning.

Standard R1: 1.1, 1.3, 1.4 Standard R2: 2.1 Standard R3: 3.3	Standard 6: a, b, c, d	Standard #1-# #5, #7, #9-10	Standard 2: 2.10 Standard 4: 4.4, 4.5, 4.6	Standard 1, 3, 5,8-10
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Goal 6: Residency and the role of apprenticeship-based training.

Sub Goals:

- 6.1. All students will be prepared to work full-time as an apprentice.
- 6.2. All students will feel supported and have access to multiple layers of mentorship from their employer and the expert educators at MTI.

6.3. All students will build a residency and apprenticeship portfolio as evidence of their professional work.				
Standard R2: 2.1, 2.2, 2.3 Standard R3: 3.1, 3.2, 3.3 Standard R4: 4.1, 4.2, 4.3	Standard 6c, 6d, 7a, 7b	Standard #7 Standard #9 Standard #10	Standard 6: 6.6, 6.7, 6.8	Standard 4 Standard 5 Standard 8 Standard 9 Standard 10
Goal 7: Data-driven educator through data, assessment, and evaluation.				
Sub Goals: 7.1. All students will be prepared to build a data model of their school employer and the demographic data of their unique student population. 7.2. All students will be able to communicate fluently as data-driven educators about the choices they make with students to build quality and personalized learning environments for their students. 7.3. All students will be able to communicate fluently as data-driven educators about their unique school and classroom data compared to national normative data sets. 7.4 All students will show evidence of increasing competency for being a high-tech, data-driven educator.				
Standard R4: 4.1, 4.2, 4.3 Standard R5: 5.1, 5.2, 5.3, 5.4	Standard 4e, 5a, 5b, 5c, 6a, 6b, 6c, 6d	Standard #6 Standard #7 Standard #9 Standard #10	Standard 1: 1.4 Standard 2: 2.2, 2.3, Standard 3: 3.4, 3.6, 3.7, 3.10, 3.11, 3.12	Standard 7 Standard 8
Goal 8: Teaching and Learning Mathematics with Diverse Learners.				
Sub Goals: 8.1. All students will be prepared to work with diverse populations of students within their mathematics classrooms. 8.2. All students will be able to communicate fluently the legal history of special education in the US. 8.3. All students will be prepared to identify students for SPED services within their mathematics classrooms. 8.4 All students will understand the content, concept, and design of individual education plans (IEP) for their students within their mathematics classrooms. 8.5 All students will be able to be professionally and proficiently engaged in IEP meetings as part of the core content and teacher-of-record team.				
Standard R1: 1.1, 1.2, 1.3, 1.4	Standard 3a, 3b, 3c, 4a-g, 5c, 6a-d:	Standard #1-#	Standard 2: 2.10 Standard 4: 4.4, 4.5, 4.6	Standard 1,3,4,5,7,9,10
Goal 9: Implementing effective mathematics pedagogy.				
Performance Evaluation: Praxis PLT Assessment				

Sub Goals:

- 9.1. All students will be prepared to implement best practices in small group instruction as part of their blended learning mathematics classroom.
- 9.2. All students will be prepared to implement best practices for incorporating various learning styles, age-appropriate child development, and critical thinking competencies in their blended learning mathematics classroom.
- 9.3. All students will be prepared to identify students for SPED services within their mathematics classrooms.
- 9.4 All students will be prepared to implement best practices in micro-lectures as part of their blended learning mathematics classroom.
- 9.5 All students will be prepared to implement best practices in peer-to-peer engagement as part of their blended learning mathematics classroom.
- 9.6 All students will be prepared to implement best practices in virtual tutoring as part of their blended learning mathematics classroom.

Standard R1: 1.1, 1.2, 1.3, 1.4	Standard 2a, 2b, 2c, 3a, 3b, 3c, 4a, 4b, 4c, 4d, 4e, 4f, 4g, 5a, 5b, 5c	Standard #1-#10	Standard 2: 2.4, 2.5, 2.10 Standard 3: 3.8, 3.9 Standard 4: 4.7, 4.8 Standard 5: 5.1, 5.2, 5.4, 5.5, 5.6 Standard 6: 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.9	Standard 1, 3-7
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Goal 10: Mathematics and Community.

Sub Goals:

- 10.1 All students will be prepared to implement best practices in community and cultural competency as part of their blended learning mathematics classroom.
- 10.2 All students will be prepared to implement best practices linking mathematics and quantitative reasoning to community-based learning as part of their blended learning mathematics classroom.
- 10.3 All students will understand the cultural framing of mathematics as a discipline and its role in achieving or preventing equity within societal frameworks and contexts.

Standard R2: 2.1, 2.2, 2.3 Standard R3: 3.1, 3.2, 3.3 Standard R4: 4.1, 4.2, 4.3	Standard 6: c, d Standard 7: a, b,	Standard #7 Standard #9 Standard #10	Standard 6: 6.6, 6.7, 6.8	Standard 4, 5, 8-10
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Goal 11: Professional Licensure and Graduation of Programming.

Sub Goals:

- 11.1 All students will be prepared and pass the Principals of Learning and Teaching Praxis assessment (5624).
- 11.2 All students will be prepared and pass the mathematics content Praxis assessment (5165).
- 11.3 All students will be prepared to submit for full graduation from the program of study.
- 11.4 All students will be prepared to submit for full licensure from the State of Indiana and all transfer paperwork that may be required to transfer licensure to their home state of professional work.

Standard R4: 4.1, 4.2, 4.3 Standard R5: 5.1, 5.2, 5.3, 5.4	Standard 7: a, b,	Standard #9 Standard #10		Standard 8 Standard 9 Standard 10
Exit Performance Evaluation: Portfolio (Mini National Board Portfolio)				

- If so, please identify: See file Appendix A WPS - 3024CB in the program application folder.
- The specific professional industry standard(s) and/or best practice(s): See file Appendix A WPS - 3024CB in the program application folder.
- The organization or agency, from which the professional industry standard(s) and/or best practice(s) emanate: See file Appendix A WPS - 3024CB in the program application folder.

c. Institutional Accreditation

- Accrediting body from which accreditation will be sought and the timetable for achieving accreditation.

Submit documentation from the accrediting body indicating the institution's current status.

MTI will ensure multiple layers of accountability with accrediting bodies to ensure that the highest quality of services are being provided for professional students, including:

- Council for the Accreditation of Educator Preparation (CAEP): Approved
- Indiana Department of Education (IDOE): Approved
- Department of Labor Registered Apprenticeship Program (RAP): Approved
- Board of Proprietary Education (BPE) and the Commission of Higher Education (CHE) in Indiana: Institutional Approval
- Board of Proprietary Education (BPE) and the Commission of Higher Education (CHE) in Indiana: Pending Program of Study Approval
- The Higher Learning Commission (HLC) for regional accreditation: Initiating Application Post BPE Program of Study
 - Current status in partnership with an accredited institutional partner: Reach University collaboration for accreditation
 - Timeline: Submission of pre-application documentation: October 30, 2023.
 - The timeline and process for applying for Higher Learning Commission status and accreditation can be found [here](#).

- National Board for Professional Teaching Standards (NBPTS): Initial
- National Council for the Teaching of Mathematics (NCTM): Approved

- Reason for seeking accreditation.

MathTrack Institute (MTI) was established in Indianapolis, IN, in 2022 based on the overwhelming demand for high-quality applied mathematics professionals within the context of education, and a sharp rise in the non-degreed paraprofessional workforce working in schools (Bisht, B., LeClair, Z., Loeb, S., & Sun, M. 2021). MTI developed the Workforce Development Pedagogical (WDP) approach to offer workforce-specific pathways where the viability of work is established through our Registered Apprenticeship Program (RAP) with the Department of Labor (DoL) and adheres to the best practices of nationally recognized licensure organizations like the Council for the Accreditation of Educator Preparation (CAEP) licenses for professional work in the field of applied mathematics teaching. The mission of the Institute is a commitment to working with national, state, and local employers to elevate the applied mathematics profession in multiple industries by investing in and scaling up a diverse, highly qualified talent pool of applied mathematics professionals.

Specialized Program Accreditation

- d. Does this program need specialized accreditation in order for a graduate to become licensed by the State or to earn a national professional certification, so graduates of this program can work in their profession or have substantially better prospects for employment?

The applied mathematics industries that MathTrack Institute seeks to support with this program of study must have a nationally recognized set of licenses and certifications that can be embedded into the program of study and conference of credits. Please see previous alignment table for more details on how we align to national standard for the teaching of mathematics specialization and licensure.

- e. If so, please identify the specialized accrediting agency: In Educator Sector CAEP is required to supply a professional licensure that has reciprocity with all other States in the US.

- f. Transferability of Associate of Science Degrees

- Since CHE/BPE policy reserves the Associate of Science designation for associate degrees whose credits apply toward meeting the requirements of a related baccalaureate degree, please answer the following questions:
- Does a graduate of this A.S. degree program have the option to apply all or almost all of the credits to a related baccalaureate degree at your institution? YES, this would be accounted for in the CPL credits.

- If so, please list the baccalaureate degree(s): Bachelor's in Applied Mathematics with a concentration in the applied industry.

This Section Applies to All Institutions

- c. Is there anything that the Commission should consider with regard to the institutional student records?

No. As stated, all student academic transcripts will be permanently digitally maintained on the MathTrack Institute Network.

- Are all student transcripts in digital format: Yes
 - If not: N/A
- How are student digital records stored: AWS and Google Cloud Services
- Where are paper student records stored: N/A
- What is the beginning year of institutional record series: 2023
- What is estimated number of digital student records: Less than 300 (100% digital)
- What is estimated number of paper student records: 0

What is the digital format of student transcripts?

- Digital CSV file or PDF
- MathTrack Institute plans to engage with [Parchment, INC](#) for all transcript requirements

- d. Is the institution using proprietary software, if so what is the name?

MathTrack curriculum, training and developmental programming happens within the MathTrack Platform.

- e. Attach a sample transcript specifically for the program being proposed as the last page of the this program application.

7. Projected Headcount and FTE Enrollments and Degrees Conferred

- Report headcount and FTE enrollment and degrees conferred data in a manner consistent with the Commission's Student Information System
- Report a table for each campus or off-campus location at which the program will be offered
- If the program is offered at more than one campus or off-campus location, a summary table, which reports the total headcount and FTE enrollments and degrees conferred across all locations, should be provided.
- Round the FTE enrollments to the nearest whole number
- If the program will take more than five years to be fully implemented and to reach steady state, report additional years of projections.

Projected Headcount and FTE Enrollments and Degrees									
Conferred									
Date, May 2023									
Institution/Location: Math Track Institute at <u>Indianapolis</u>									
Program: Applied Mathematics Program									
				Year 1	Year 2	Year 3	Year 4	Year 5	
				FY2023	FY2024	FY2025	FY2026	FY2027	
Enrollment Projections (Headcount)									
	Full-Time			25	125	500	1,000	2,000	
	Part-Time			0	0	0	0	0	
	Total			25	125	500	1,000	2,000	
Enrollment Projections (FTE*)									
	Full-Time			25	125	500	1,000	2,000	
	Part-Time			0	0	0	0	0	
	Total			25	125	500	1,000	2,000	
Degrees Conferred Projections				0	0	25	125	500	
Degree Level: Bachelor's Applied Mathematics									



MATHTRACK INSTITUTE

SAMPLE TRANSCRIPT

NAME OF STUDENT

STUDENT #1
123 Anywhere St., Any City
+123-456-7890

DEGREE CONFERRED: BS APPLIED MATHEMATICS

DATE BEGAN: SEPTEMBER 18, 2023
DUE CONFERRED: SEPTEMBER 25, 2025

COURSE ID	COURSE TITLE	CR	MARK	DESCRIPTION
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MATH 111	MATHEMATICAL FOUNDATIONS	3	Pass	Required Major
MATH 112	APPLIED QUANTITATIVE REASONING	3	Pass	Required Major
MATH 211	APPLICATIONS OF GEOMETRY AND ALGEBRA I	3	Pass	Required Major
MATH 212	APPLICATIONS OF GEOMETRY AND ALGEBRA II	3	Pass	Required Major
MATH 213	APPLICATIONS OF GEOMETRY AND FUNCTION ANALYSIS	3	Pass	Required Major
MATH 311	ENACTED AND EMBODIED MATHEMATICS	3	Pass	Required Major
MATH 312	APPLIED PROBABILITY AND STATISTICS	3	Pass	Required Major
MATH 313	FUNCTIONS AND CALCULUS	3	Pass	Required Major
MATH 411	APPLIED MATHEMATICS PROFESSIONAL CERTIFICATION I	3	Pass	Required Major
MATH 412	APPLIED MATHEMATICS PROFESSIONAL CERTIFICATION II	3	Pass	Required Major
TOTAL		30		



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+123-456-7890

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DATE BEGAN: SEPTEMBER 18, 2023
DUE CONFERRED: SEPTEMBER 25, 2025

COURSE ID	COURSE TITLE	CR	MARK	DESCRIPTION
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APP 211	APPLIED APPRENTICESHIP: TEAMING AND APPRENTICESHIP I	3	Pass	Required Major Apprenticeship
APP 212	APPLIED APPRENTICESHIP: MULTI-DISCIPLINARY APPRENTICESHIP I	3	Pass	Required Major Apprenticeship
APP 213	APPLIED APPRENTICESHIP: MULTI-DISCIPLINARY RESEARCH AND DATA I	3	Pass	Required Major Apprenticeship
APP 214	APPLIED APPRENTICESHIP: TECHNICAL APPLICATIONS I	3	Pass	Required Major Apprenticeship
APP 215	APPLIED APPRENTICESHIP: LANGUAGE AND CULTURE I	3	Pass	Required Major Apprenticeship
APP 311	APPLIED APPRENTICESHIP: TEAMING AND APPRENTICESHIP II	3	Pass	Required Major Apprenticeship
APP 312	APPLIED APPRENTICESHIP: MULTI-DISCIPLINARY APPRENTICESHIP II	3	Pass	Required Major Apprenticeship
APP 313	APPLIED APPRENTICESHIP: MULTI-DISCIPLINARY RESEARCH AND DATA II	3	Pass	Required Major Apprenticeship
APP 314	APPLIED APPRENTICESHIP: TECHNICAL APPLICATIONS II	3	Pass	Required Major Apprenticeship
APP 315	APPLIED APPRENTICESHIP: LANGUAGE AND CULTURE II	3	Pass	Required Major Apprenticeship
TOTAL		30		



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+123-456-7890

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DATE BEGAN: SEPTEMBER 18, 2023
DUE CONFERRED: SEPTEMBER 25, 2025

COURSE ID	COURSE TITLE	CR	MARK	DESCRIPTION
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COM 211	PROFESSIONAL COMMUNICATION AND COMPOSITION	3	Pass	Credit for Prior Learning
COM 311	CROSS CULTURAL COMMUNICATION IN WORKPLACE	3	Pass	Credit for Prior Learning
SCI 211	APPLIED SCIENCE INDUSTRY I	3	Pass	Credit for Prior Learning
SCI 311	APPLIED SCIENCE INDUSTRY II	3	Pass	Credit for Prior Learning
SCI 411	APPLIED SCIENCE INDUSTRY III	3	Pass	Credit for Prior Learning
GEN 211	APPLIED WORKPLACE READINESS I	3	Pass	Credit for Prior Learning
GEN 311	APPLIED WORKPLACE READINESS II	3	Pass	Credit for Prior Learning
GEN 411	APPLIED WORKPLACE READINESS III	3	Pass	Credit for Prior Learning
SCI 212	APPLIED CRITICAL PROBLEM SOLVING AND TEAMING I	3	Pass	Credit for Prior Learning
SCI 312	APPLIED CRITICAL PROBLEM SOLVING AND TEAMING II	3	Pass	Credit for Prior Learning
TOTAL		30		



MATHTRACK INSTITUTE

SAMPLE TRANSCRIPT

NAME OF STUDENT

STUDENT #1
123 Anywhere St., Any City
+123-456-7890

DEGREE CONFERRED: BS APPLIED MATHEMATICS

DATE BEGAN: SEPTEMBER 18, 2023
DUE CONFERRED: SEPTEMBER 25, 2025

FOCUS	TYPE	MARK	CR	DESCRIPTION
MATH	REQUIRED	PASS	30	MAJOR
APP	REQUIRED	PASS	30	APP MAJOR
CPL	TRANSFER	PASS	30	CPL APP
SCI CORE	ELECTIVE	PASS	30	SCIENCE CORE
TOTAL			120	

Payment Information

DEGREE CONFERRED: YES
Account No : 123-456-7890

CEO/CHAIRMAN