



Capstone Engineering Academy  
Education Plan  
2023- 2026

**Capstone Engineering Academy**  
**6115 – 10<sup>th</sup> Street SE,**  
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**[www.CapstoneAcad.ca](http://www.CapstoneAcad.ca)**

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## **A Message from the School Owner/CEO – Mr. Dean White, P.Eng.**

As we embark upon the 2024-2025 school year, we anticipate another year of growth and innovation in STEM education in the province of Alberta. We are dedicated to refining our curricula and fostering partnerships with families and organizations not only in Calgary but also across Alberta.

Our collaboration with Roots 2 STEM continues to be instrumental in our journey, providing invaluable support and leveraging years of experience in educating the Calgary community. With their assistance, our school has become a well known independent accredited-funded institution in the province. In the upcoming academic term, we are grateful to continue benefiting from Roots 2 STEM's resources, including access to their Lab of Discovery, state-of-the-art equipment, and expert instructors. These resources serve as a foundation for Capstone Engineering Academy to further solidify its position as Calgary's premier destination for Technology and Engineering-focused distance education.

The past year, 2023-2024, marked a period of substantial growth for Capstone Engineering Academy. From a modest beginning in September, 2022, we experienced a remarkable enrollment surge, welcoming 914 non-primary students throughout the school year. Our commitment to delivering top-tier Engineering and Technology education has garnered interest from parents and students, leading to an increased demand for our services. To meet this demand, we expanded our faculty by hiring five full-time certified Alberta teachers, each bringing expertise in diverse fields such as Civil Engineering, Computer Science, Astronomy, Biology, Health Sciences, and Physics. Furthermore, in August 2024, we are excited to welcome at least three more teachers and a Curriculum Coordinator who will play a pivotal role in further enhancing our Engineering and Technology curricula.

Anticipating the forthcoming academic year, we stand unwavering in our commitment to excellence. With this resolve in mind, revisions have been incorporated into this year's educational plan, drawing from the insights gained throughout the 2023-2024 school term. Capstone Engineering Academy eagerly anticipates advancing our mission of fostering student empowerment and molding the landscape of Engineering and Technology education in Alberta.

Dean White, P.Eng.  
CEO & Founder  
Capstone Engineering Academy



## Accountability Statement

This Education Plan for Capstone Engineering Academy commencing August 30, 2023, was prepared under the direction of the Board of Directors in accordance with the responsibilities under the *Private Schools Regulation* and the *Education Grants Regulation*. This Education Plan was developed in the context of the provincial government's business and fiscal plans. The Board has used its performance results to develop the plan and is committed to implementing the strategies contained within the plan to improve student learning and results.

The Board approved this Education Plan for 2023/2024 to 2024/2026 on October 25<sup>th</sup>, 2023. The Board reviewed and approved the 2024/2025 plan on May 29<sup>th</sup>, 2024, and it was also posted to the school's website.

(Original signed)

Eeva White  
Board Chair  
Capstone Engineering Academy

<https://capstoneacad.ca/wp-content/uploads/2024/05/Capstone-Education-Plan-2023-2026-May-29-2024.pdf>

## **A Profile of the School Authority**

Capstone Engineering Academy distinguishes itself with an innovative educational approach emphasizing experiential learning and solution-oriented teaching methods. Transitioning seamlessly from traditional classrooms to state-of-the-art laboratories and real-world applications, our academy redefines the educational landscape.

At Capstone Engineering Academy, we foster an inclusive learning environment centered around technology and engineering education. Aligned with Alberta Education curriculum standards, our curriculum integrates hands-on learning opportunities that empower students to explore the practical applications of technology and engineering.

As an accredited and independently funded institution, Capstone Engineering Academy provides a secure and collaborative setting where students can engage with technology and engineering concepts in everyday contexts. Our "Lab of Discovery" cultivates creativity and innovation, transforming traditionally challenging subjects into exciting learning experiences.

Our program is designed to equip students with the skills and mindset to tackle complex technological and engineering challenges. Beyond mere academic subjects, technology and engineering represent a holistic approach to problem-solving in everyday life. Our interdisciplinary curriculum emphasizes practical applications, preparing students to excel in diverse fields. Capstone Engineering Academy envisions empowering young minds to embrace technology and engineering from an early age, unlocking their potential and exposing them to a wide range of career opportunities in STEM fields. In a landscape where the demand for STEM expertise continues to grow, our programs serve as foundational steps towards bridging the skills gap and positioning students for success on a global scale.

In addition to technical knowledge, our unique educational approach emphasizes the development of essential 21st-century skills. Through hands-on experiential learning and the integration of scientific and engineering processes, students cultivate collaboration, creative problem-solving, critical thinking, and a lifelong commitment to learning and leadership.

## **STEM is a Way of Life**

Capstone Engineering Academy offers students a look at the different sciences, technologies, and engineering disciplines. A Technology and Engineering career is a long journey, and our approach allows students to make mistakes and learn what works and what does not in a safe and innovative environment. Students soon learn that mistakes can be made but it is what we learn from them that counts.

## Education Plan

### I. Education Plan Outcomes, Measure, and Strategies

#### A. Student Growth and Achievement

Ensuring students engage intellectually and grow continuously as learners, in a way consistent with their individual learning needs, interests and aspirations.

KEY STRATEGIES	MEASURES
<ol style="list-style-type: none"> <li>1. CEA Student and parent/guardian satisfactory Survey results</li> <li>2. Teachers' lesson plans will include open inquiry questions that will engage broad thinking in students. At the end of each unit, students will be given an open-inquiry essay question on the unit subject.</li> <li>3. All lesson plans are built upon a low floor/ high ceiling methodology, so all students can achieve personal development from the start and end of the course.</li> </ol>	<p><b>Local Measures</b></p> <ol style="list-style-type: none"> <li>1. Receive an average of 80% or higher on CEA Student and Parent/Guardian satisfactory survey. To confirm that CEA is catering to individual needs, interests, and aspirations.</li> <li>2. Students' responses to open-inquiry questions will use the knowledge that was taught in the unit.</li> <li>3. Teachers will develop rubrics that outline the key components of the "low floor/high ceiling" methodology.</li> </ol>

## B. Teaching and Leading

Ensuring that all leaders and staff demonstrate excellence in advancing student success.

KEY STRATEGIES	MEASURES
<ol style="list-style-type: none"> <li>1. The curriculum progressively builds upon skills, knowledge, and understanding throughout each course.</li> <li>2. The Curriculum Coordinator meets with teaching staff to review program expectations and ongoing development</li> <li>3. The principal does classroom observations.</li> <li>4. CEA offers educators and administration more competitive compensation packages, including higher salaries, health benefits, and opportunities for professional development.</li> </ol>	<p><b>Local Measures</b></p> <ol style="list-style-type: none"> <li>1. CEA will administer a pre - assessment at the beginning of each course to gauge students' prior knowledge and skills. Then, administer post - assessments at the end of each course to measure what students have learned and how their skills have developed.</li> <li>2. The Curriculum Coordinator documents progress in teachers' growth throughout the school year. Structured questions provide the admin team the opportunity to compare staff growth and areas of improvement.</li> <li>3. The principal does biweekly formal and informal classroom visits to provide teachers and instructors with feedback.</li> <li>4. CEA reviews and compares on a yearly basis, our compensation packages to other local schools/school divisions, to make sure staff is receiving market value.</li> </ol>

### C. Learning Supports

Establishing a learning environment where local and societal context is recognized, diversity is embraced, a sense of belonging is emphasized and all students are welcomed, cared for, respected, and safe.

KEY STRATEGIES	MEASURES
<ol style="list-style-type: none"> <li>1. Embed FNMI (First Nations, Metis, Inuit) foundational knowledge in Capstone's identity.</li> <li>2. CEA will encourage potential candidates of FNMI background to apply for all roles throughout the school year.</li> <li>3. Survey staff on how they are implementing FNMI knowledge in their teaching.</li> </ol>	<p><b>Local Measures</b></p> <ol style="list-style-type: none"> <li>1. CEA will create and use land acknowledgment at the beginning of ceremonies, lectures, or any public events.</li> <li>2. CEA will actively promote career postings at post-secondary institutions.</li> <li>3. We will enhance our understanding of First Nations, Metis, and Inuit cultures by actively seeking out programs and experiences offered by local Elders and Indigenous educators and businesses.</li> </ol>



### D. Governance

Stewardship of resources with an emphasis on student success, generative community engagement, transparency, and accountability.

KEY STRATEGIES	MEASURES
<ol style="list-style-type: none"> <li>1. CEA will follow proper accounting procedures</li> <li>2. CEA staff will implement unconscious bias training in its staff PD.</li> <li>3. CEA will give parents the opportunity to provide input.</li> </ol>	<p style="text-align: center;"><b>Local Measures</b></p> <ol style="list-style-type: none"> <li>1. Yearly accounting audits</li> <li>2. Administration with experts in the field will develop by February 2024 a structured interview process that will reduce the possibility of unconscious bias.</li> <li>3. CEA will continually invite parents to answer our school survey.</li> </ol>

### E. Local and Societal Context

Processes and practices that enable attending to local and societal contexts are woven throughout each of the other four domains addressed above.

**Budget Summary for the Year Ending August 31, 2025**

**Allocation of Budget Revenues and Expenses to Programs  
For the Year Ending August 31, 2025**

**Budget**

**Revenues:**

Instruction	950,000
Alberta Education Government Grant	2,833,600
Operations & Maintenance	60,000
Transportation	45,000
Other	103,000
	<b>3,991,600</b>

**Expenses:**

Instruction	2,280,000
Lease – Building	315,000
Services, Contracts & Supplies	585,000
Operations & Maintenance	80,000
Transportation	45,000
Equipment & Furniture	325,000
	<b>3,630,000</b>

**Surplus(deficit) of revenues over expenses** **361,623**