



**WIC Engineering Institute Certificate 2019-20**

Student: \_\_\_\_\_

**Module A: WIC Engineering Courses & Grade** (complete any 6 courses; 1 must be an AP)

- |  |                     |                |  |
|--|---------------------|----------------|--|
| <input type="radio"/> Coding 8         |                     |                |  |
| <input type="radio"/> Engineering 9    |                     |                |  |
| <input type="radio"/> Computer Studies |                     |                |  |
| <input type="radio"/> Mathematics 30-1 | School mark: _____% |                |  |
| <input type="radio"/> Mathematics 31   | School mark: _____% |                |  |
| <input type="radio"/> AP Calculus 35   | School mark: _____% | AP mark: _____ |  |
| <input type="radio"/> Physics 30-1     | School mark: _____% |                |  |
| <input type="radio"/> AP Physics 35    | School mark: _____% | AP mark: _____ |  |
| <input type="radio"/> Chemistry 30-1   | School mark: _____% |                |  |
| <input type="radio"/> AP Chemistry 35  | School mark: _____% | AP mark: _____ |  |
| <input type="radio"/> Biology 30       | School mark: _____% |                |  |
| <input type="radio"/> AP Biology 35    | School mark: _____% | AP mark: _____ |  |

**Module B: Engineering & Leadership Core Competency Experiences** (complete any 4 of the following; 1 must be a leadership experience)

**Section 1: Interaction with Engineering Community**

Character

- Guest Speakers - Women in STEM Speaker Series
  - March 2018 - Stacey Waldal & Dr. Gina Cherkowski
- Guest Speaker – Titanium - Jennifer Kaufield (grade 9-12)
- Guest Speaker - Green Cat Renewables – Stephanie Ewing (grade 9-12)
- Guest Speaker – NASA astronaut – Drew Feustel (grade 7-12) Citizenship
- Alberta Orthotic & Prosthetic Centre (grade 10-12)

Creativity

- Guest Speaker – Biomedical Engineering - Laleh Behjat & Breanna Borys FF 1x 2019
- Beakerhead – Atomic 13 Ingenuity Challenge Project (grade 7-9)
- STEM NHL Hockey Workshop (grade 7-8)
- MindFuel Project (grade 8)
- DIRT site visit (grade 10-12)

Critical Thinking / Problem Solving

- Telus Spark Science Centre Workshops (grade 7-9)
  - Marble Machines
  - Hydraulic Challenge
  - Cultivating Technology
  - Electricity Blocks
  - Extreme Temperature
  - Action, Reaction, Contraption
  - Spectacular Reaction
  - Pipeline Challenge
  - Curious Matter

## Section 2: Participation in Leadership Opportunities

- Sailing Education Adventures (SEA)
- Duke of Edinburgh Award
- CAIS Junior Student Leadership Conference
  - Minden, ON, 2017
  - Minden, ON 2018
- CAIS Senior Student Leadership Conference
  - Calgary 2016
  - Toronto 2017
  - Lakefield College 2018
  - Shawnigan Lake School 2019
- Shad Valley
- WIC Swiss Summer School
- WIC Prefect
- WICAA member: \_\_\_\_\_
- WIC Student Council: \_\_\_\_\_
- Other: \_\_\_\_\_

## Module C: Engineering Clubs and Activities (complete any 5 of the following activities)

### Critical Thinking / Problem Solving

- Annual Engineering Challenge (grade 7)
- Series of Engineering Challenges (grade 8)
- University Prep Math Club (grade 12)
- MathLab 9 (grade 9)

### Citizenship

### Collaboration / Communication

- Discover! Club (grade 7-9)
- Discover! Club – Senior Leader (grade 10-12)
- Senior Leadership Discover Club (grade 10-12)

### Creativity

- Tinkercad & 3D Printing (grade 8)
- PencilCase App Design (grade 9)
- Scratch Computer Programming (grade 9)
- D. Lab (grade 9-12)
- Engineering Club (grade 9-12)
- F.I.R.S.T. Lego League Robotics Club (Grades 7 to 9)
- CAD Software SolidWorks & Fusion Labs (grade 9-12)

### Communication

- Computer Programming & Technology Club (grade 9-12)
- Coding Seminar – Mitch Matula (grade 7-12)
- MatLab (grade 11-12)
- STEM Learning Lab (grade 7-12)
  - Python Coding – Level 1
  - Python Coding – Level 2
- Microsoft Excel 101 (grade 9-12)
  - Level I
  - Level II

## Module D: Post-Secondary Experiences at U of Calgary (complete any 3 of the following)

- University 101 (Mandatory)
- U of C / SAIT / Mount Royal – Explore STEM Conference (grade 9 girls)
- Women in Engineering Day – Schulich School of Engineering
- Engineering Day - Schulich School of Engineering

- SET Challenge (Science, Engineering & Technology) (grade 10-12)
- APEGA Science Olympics (grade 10-12)
- Technovation Challenge (grade 7-12)
- U of C Engineering Outreach Lab (grades 7-12)
  - October 2015
  - June 2016
  - May 2018

**Module E: Project-Based Learning** (complete any 1 of the following)

- STEM LipSync Buildathon Project (grade 7-12)
  - 2018
- AIM Engineering Group Project (grade 9-12)
  - 2016-17
  - 2017-18
  - 2018-19
- WIC Senior Engineering Challenge (grade 9-12)
  - 2017
  - 2018
  - 2019

Other engineering related experiences:

Which post- secondary institution do you plan on attending and the name of the program you will enter?

Institution: \_\_\_\_\_

Program: \_\_\_\_\_