

**University of Waterloo**  
**Co-operative Work Terms**

**Mark Tan**  
**20676960**

**3B Environmental Engineering, Honours Co-operative Program**

<b>Work Term</b>	<b>Employer</b>	<b>Evaluation</b>
Jan - Apr 2017	University of Waterloo Faculty of Engineering Waterloo Ontario Canada Outreach Activity Developer	VERY GOOD
Sep - Dec 2017	University of Waterloo Faculty of Engineering 1 Waterloo Ontario Canada CIVE WEEF Teaching Assistant	EXCELLENT
May - Aug 2018	Town of Innisfil Administration Building Innisfil Ontario Canada Development Engineering	OUTSTANDING
Sep - Dec 2019	Town of Innisfil Administration Building Innisfil Ontario Canada Capital Engineering	EXCELLENT

**Planned Future Work Term(s)**

May - Aug 2020

**Disclaimer:** This evaluation does not constitute an employment endorsement or recommendation. Employer evaluations of student contributions and achievements during the work term are conducted as part of the University of Waterloo's Co-operative (Co-op) Education model. Like academic grades, overall evaluations are part of the assessment of a student's progress in the co-op portion of their degree studies. These assessments are completed using criteria set out by the University, not the employer, and do not reflect the employer's criteria or assessment metrics.

# MARK TAN

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## SUMMARY OF SKILLS

- Project Management: project scheduling and coordination, public engagement/open houses
- Construction: site supervision and inspection, engineering drawing review, technical report writing; working experience with development processes (site plans, subdivisions, zoning by-law amendments, etc.)
- Air, Water, and Soil Sampling: borehole logging, sieve analysis, compaction testing, water quality testing
- AutoCAD: taught a university-level course to 235 students on drafting engineering drawings (site plans, grading plans, site servicing plans, stormwater management plans, etc.)
- Other Software: Microsoft Office Suite, Civil 3D, HEC-RAS, Bluebeam, Photoshop; quick and adaptable learner with unfamiliar software

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## EDUCATION

### University of Waterloo

BASc Environmental Engineering (Incoming 4th year)

Waterloo, ON

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## COOP EXPERIENCE

### Town of Innisfil

Capital Engineering

Sep 2019 – Dec 2019

Innisfil, Ontario

- Managed road reconstruction and rehabilitation projects ranging from small- to large-scale (\$10M) by coordinating with the different parties to meet project timelines.
- Reviewed engineering drawings in accordance with the Town of Innisfil Engineering Standards, MTO, TAC, and other technical references.
- Performed inspections for roads, culverts, and Stormwater Management (SWM) ponds to ensure construction is built to specifications. Prepared detailed deficiency lists.
- Supervised construction processes (grading, paving, hydrovac, tree clearing, etc.) for roads, parks, and beaches while utilizing proper PPE and safety guidelines.
- Prepared contract documents (change order, request for tender, etc.) for capital projects.

### Town of Innisfil

Development Engineering

May 2018 – Aug 2018

Innisfil, Ontario

- Exhibited excellent attention to detail by reviewing engineering drawings (site plans, grading plans, stormwater management plans, pre- and post-development drainage plans, etc.) and reports based on the Town of Innisfil Engineering Standards and sound engineering judgement. Knowledgeable in LID BMP features (infiltration trenches, rain gardens, etc.).
- Prepared legal agreements and other correspondence between the Town and Developer.
- Coordinated with engineers and technologists to facilitate Environmental Compliance Approval (ECA) applications. Trained my supervisor and other Professional Engineers in the ECA review process.
- Served as the point person for the Town's ECA Transfer of Review. Communicated with the MECP and engineering consultants for a streamlined approval process.
- Represented the municipality in pre-consultation meetings with consultants and residents.

## University of Waterloo

Civil/Environmental Engineering Fundamentals Teaching Assistant

Sep 2017 – Dec 2017

Waterloo, Ontario

- Trained and mobilized 12 survey groups for a 4-week surveying course. 100+ hours surveying experience with the Sokkia Total Station and Sokkia Differential GPS.
- Co-developed a term project regarding an LID parking lot which covered proper functional servicing report guidelines, bioretention cell design, and hydrologic calculations (Rational Method).

## University of Waterloo

Engineering Outreach Activity Developer

Jan 2017 – Apr 2017

Waterloo, Ontario

- Demonstrated communication skills by effectively conveying complex science and engineering concepts to middle and secondary school students.
- Exhibited leadership skills by managing a team of 10+ volunteers in running the UW Engineering Outreach Senior March Break Camp.
- Displayed a strong work ethic and excellent time management skills by meeting multiple deadlines for the UW Engineering Outreach.

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### EXTRACURRICULARS

#### School Clubs

UW Energy Club; UW Engineering Society

#### Hobbies

Cooking for my family and friends; Weightlifting; Playing the ukulele; Snorkeling

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### ADDITIONAL INFORMATION

#### Class G Driver's License

With access to a personal vehicle

# UNIVERSITY OF WATERLOO

## UNOFFICIAL GRADE REPORT

Mark Tan  
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3B Environmental Engineering, Honours Co-operative Program

### Winter 2020

CIVE	497	Special Topics in Civil Eng
		Low-Energy Building Systems
ENVE	335	Decision Making Enviro Eng.
ENVE	376	Biological Processes
ENVE	391	Law & Ethics for ENV GEOG Eng.
ENVE	399	Seminar
ENVE	383	Advanced Hydrol & Hydraulics
Term Average:		N/A
		Decision:

### Fall 2019

COOP	4	Co-operative Work Term	CR
PD	9	Ethical Decision Making	CR
Term Average:		N/A	Decision:

### Spring 2019

CIVE	353	Geotechnical Engineering 1	99
CIVE	392	Econ & Life Cycle Analysis	63
EARTH	458	Physical Hydrogeology	90
EARTH	458L	Field Methods in Hydrogeology	80
ENVE	330	Lab Analy & Field Sampl Techn	85
ENVE	375	Physico-Chemical Processes	85
WKRPT	300	Work-term Report	75*
		*Degree Requirement, Not in Average	
ENVE	398	Seminar	
Term Average:		84	Decision: Excellent standing

### Winter 2019

PD	5	Project Management	CR
Term Average:		N/A	Decision:

### Fall 2018

BIOL	240	Fundamentals of Microbiology	60
CIVE	382	Hydrol & Open Channel Flow	80
ENVE	225	Environmental Modelling	70
ENVE	277	Air Quality Engineering	89
ENVE	279	Energy and the Environment	90
ENVE	299	Seminar	
WKRPT	200	Work-term Report	75*
		*Degree Requirement, Not in Average	
Term Average:		77.09	Decision: Good standing

### Spring 2018

COOP	3	Co-operative Work Term	CR
PD	7	Conflict Resolution	CR
Term Average:		N/A	Decision:

### Winter 2018

ENVE	223	Diff Equations & Bal Laws	70
ENVE	224	Probability & Statistics	87
ENVE	275	Environmental Chemistry	78
ENVE	298	Seminar	
ERS	215	Env Assessment I	73
ENVE	280	Fluid Mechanics	83
Term Average:		78.2	Decision: Good standing

### Fall 2017

COOP	2	Co-operative Work Term	CR
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PD	21	Eng'g Wrkplace Skills II:	CR
Term Average:	N/A	Decision:	

### Spring 2017

CIVE	105	Mechanics 2	72
CIVE	121	Computational Methods	76
ENVE	153	Earth Engineering	81
GENE	123	Elec Circuits & Instrument	76
MATH	118	Calculus 2 for Engineering	80
Term Average:	76.55	Decision:	Good standing

### Winter 2017

PD	20	Eng'g Workplce Skills I:	CR
COOP	1	Co-operative Work Term	CR
Term Average:	N/A	Decision:	

### Fall 2016

ENVE	100	Enviro & Geo Eng'g Concepts	86
CIVE	115	Linear Algebra	82
CIVE	104	Mechanics 1	88
MATH	116	Calculus 1 for Engineering	84
CHE	102	Chemistry for Engineers	77
STV	100	Society, Tech & Values: Intro	74
Term Average:	81.71	Decision:	Excellent standing