





	<p>core science (preferably physics) equivalent, all with (C) or higher. One Grade 10 level shop class is also recommended.</p> <p>For International Education Requirements (English as a Second Language) please contact the International Education Department at Northern Lights College ( Inted@nlc.bc.ca) for details.</p> <p>Work experience and transcripts of grades from subjects other than those listed above will also be considered for admission support upon review and approval by the Associate Dean AMT</p>
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**Program outline:**

**AMT 101 General Introduction**

Orientation to Northern Lights College/Okanagan College and their policies. A general introduction to aviation, safety protocols, and procedures.

**AMT 102 Aerodynamics Fixed Wing Aircraft**

A fundamental understanding of the principles, forces, and physics involved in fixed wing theory of flight.

**AMT 103 Materials Aircraft Structures**

An overview of the materials used in aviation and their applications pertaining to assembly and replacement.

**AMT 104 Aircraft Hardware Approved Parts**

Provides an understanding of aviation hardware such as rivets and screws, and nuts and bolts. Also

The controls and adjustments that are necessary to make sure that a helicopter flies according to manufacturer's standards.

**AMT 125 Aircraft Maintenance Inspections**

Provides an understanding of why and how inspections are done on aircraft, the equipment used, and the interval requirements.

**AMT 126 Basic Electricity AC**

Explains the alternating current electrical principles and provides examples of types of systems and schematics used in aviation.

**AMT 127 Turbine Engine Theory**

Introduces the jet engine and provides an understanding of operation and the fuel systems that power it. Covers a historical overview from inception to current day.

**AMT 128 Turbine Engine Systems**

Explores turbine engine theory and the associated systems that allow for successful operation of the turbine engine.

**AMT 129 Weight and Balance**

Explains why weight and balance affect aircraft and how to safely work when leveling or jacking aircraft.

**AMT 130 Electrical Systems**

Describes aircraft electrical systems and provides an understanding of how they are integrated into the aircraft.

**AMT 131 Aircraft Projection Systems**

Provides a complete understanding of protective systems on an aircraft used for environmental conditions such as fire, ice, and rain.

**AMT 132 Practical Projects 2**

Will allow students to demonstrate their theoretical knowledge in a practical fashion. Becoming progressively more complex throughout semester 2.

**AMT 210 Instrumentation and Avionics**

Explains flight deck instruments and avionics and how they operate. Differentiating between analog and new computerized displays and how to test their functions and troubleshooting.

**AMT 211 Dynamic Systems**

Provides an understanding of moving systems and maintenance requirements.

**AMT 212 Piston Engines 1**

The operation of the piston engine will be covered to provide an understanding of the combustion process to extract power.

**AMT 213 Reciprocating Components**

The course will expand on the reciprocating components of a piston engine and its operation in an aircraft.

**AMT 214 Piston Engines 2**

Provides a more in depth understanding of the various flight deck instruments and tools used when maintaining and operating piston engines.

**AMT 215 Propellers**

Explains the function and operation of a propeller and how it transforms power from the engine into usable energy for flight.

**AMT 216 Turbine Engine Systems**

A further explanation of turbine engine fuel and ignition systems focused on creating an understanding of turbine engine theory and operation, and how the systems are integrated.

**AMT 217 Landing Gear**

Provides an explanation of various landing gear systems and their uses.

**AMT 218 Practical Projects 3**

Will allow students to demonstrate their theoretical knowledge in a practical fashion. Becoming progressively more complex throughout semester 3.

**Implementation date:** September 2019

**Cost:** N/A

# Science, Technology, and Health

## Human Service Work Diploma

### Program revision:

#### Graduation requirements

#### Program outline

#### Rationale:

This program revision connects to our TIER III review from 2013, which recommended HSW clearly establish its identity. Deleting the 2 courses we are proposing allows us to take tangible steps toward formalizing our established Program identity.

#### Graduation requirements:

Existing	Proposed
Students must obtain a minimum graduating grade average of 60% in academic courses. Minimum passing grade for all HSW courses is 70%. The practicum is graded as either a pass or fail.	Students must obtain a minimum graduating grade average of 60% in academic courses. Minimum passing grade for all HSW courses is 70%. The practicum is graded as either a pass or fail.

\* formalizing our established









Note (1): Due to the experiential learning component of the course, attendance is required. **Students may miss no more than five (5) classes to receive course credit.** If so, a failure grade (F) will be recorded on your transcript.

Note (2): Examination details will be provided in class prior to each examination. The examination dates are noted on the class schedule. Students are advised not to make travel / holiday plans on exam dates. Attendance on the examination dates is mandatory.

Note (3): Students will be required to develop a training plan for a competitive season. Students will prepare a periodization plan that builds to a goal race for one specific triathlon distance. More details about this project will be provided in class.

Note (4): Students will be provided with the opportunity to develop instructional skills by completing three sport leadership presentations. These presentations will require that

- 3.1.3. Core positioning
- 3.1.4. Coordination
- 3.1.5. Components
- 3.1.6. Skills specific to triathlon
- 3.1.7. Drills and instructional tips
- 3.1.8. Transition strategies and techniques

#### 4. Teaching Techniques in Triathlon

4.1. Describe and demonstrate the technical elements necessary for performance success in triathlon for the following skills:

- 4.1.1. Learning
- 4.1.2. Instructional strategies
- 4.1.3. Feedback

4.2. Planning:

- 4.2.1.

## **Human Kinetics Diploma Program**

### **Program revision**

#### **Addition of courses**

#### **Program outline**

#### **Rationale:**

We are adding one course that will be offered in rotation with HKIN 291 and HKIN 295. We need to add it to the list of applied methods courses that are included in the Physical and Health Education Program Outline.

#### **Addition of courses:**

HKIN 292 Applied Methods: Triathlon

#### **Program outline:**

As a means of satisfying all the prescribed graduation requ



[HKIN 121](#) Biomechanics

or:

[HKIN 261](#) Health, Policy and Canadian Society

9 credits of electives

Students must take at least twelve (12) credits of transferable courses in at least two (2) of the following four (4) areas: 100-level Biology (not 131 or 133) 100-level Chemistry, 100-level Physics, 100-level Mathematics or Statistics

**Implementation date:** September 2019

**Cost:** N/A

**PHYS 111 – 3 – 6**

**Calculus-Based Physics I**

**Course revision:**

**Calendar description**

**Course content**

**Contact hours**

**Rationale:**

These revisions are required for PHYS111 to meet the curriculum and contact hour requirements of the Common First-Year Engineering Curriculum Agreement. Okanagan College intends to sign onto this agreement as a "Sending Institution".

**Calendar description:**

Existing:

A calculus-based introduction to mechanics for students who intend to pursue careers in the physical

**Calendar description:****Existing:**

An introductory survey of electricity, magnetism and light: electrostatics, electric fields, capacitance, potential, currents, resistance, electric circuits, magnetic forces, magnetic fields, electromagnetic induction, alternating currents; waves and light, interference and diffraction. Experimental laboratory investigations in electricity, magnetism and light, and consideration of numerical problems and special topics are included. In any centre where PHYS 122 is not offered, PHYS 121 shall have, in addition to the three lecture hours and the three lab hours, a one-hour seminar.

**Proposed:**

A calculus-based introduction to Physics for students who intend to pursue careers in the physical sciences or engineering. Topics covered include: electrostatics; DC and AC circuits; magnetic forces and fields; electromagnetic induction; waves and sound; wave and geometric optics; and modern physics. Experimental laboratory investigations, with emphasis on data collection, analysis and experimental techniques, reinforce the concepts covered in the lecture part of the course.

**Course content:**

Sound, geometric optics, and modern physics are being added. The time spent on wave optics will be increased, and the time spent on electricity, circuits, and electromagnetism will be decreased.

**Contact hours:**

	<b>Existing</b>	<b>Proposed</b>
<b>Lecture</b>	3	4
<b>Lab</b>	3	3
<b>Average weekly contact hours</b>	6	7

**Implementation date:** September 2019

**Cost:** N/A

**NTEN 129 – 3 – 4****Project Management for Network and System Administrators****New course****Rationale:**

When originally conceived, BUAD 231 - Project Management in an Information Technology Environment was delivered in the fourth semester of the NTEN program and acted as a first course in project management within a generic Information Technology context.

In 2015 and 2016, the NTEN program undertook a significant program revision that, in part, involved the resequencing of key learning outcomes. As part of that resequencing, some of the foundational theoretical and functional aspects of project management were transferred to earlier points in the program flow, particularly as new inclusions in NTEN 199 - Topics in Internetworking. As well, the department committed to using these same foundations as structural elements in network and systems lab work for other courses.

As a result, through ongoing review of the diploma program and in consultation with the BUAD Department and NTEN Program Advisory Committee, the department has identified the need to replace BUAD 231 with a new, more specific project management course (NTEN 129 - Project Management for Network and Systems Administrators) to better align with program outcomes (i.e. prepare students prior to NTEN 199 and subsequent second year courses with the requisite project management knowledge).

NTEN 129 demonstrates to students how project management can be used to successfully initiate, monitor and complete a network or systems project. It focuses on project management methodologies, project documentation, definitio



**Learning Outcomes:**

After completion of this course the student will be able to:

Identify project goals of an IT project, as well as constraints, deliverables, performance criteria, control needs, and resource requirements in consultation with stakeholders.

Manage the scope, cost, timing, and quality of an IT project, at all times focused on project success as defined by project stakeholders.

Align an IT project to the organization's strategic plans and business justification throughout its lifecycle.

Implement project management knowledge, processes, lifecycle and the embodied concepts, tools and techniques in order to achieve project success.

Adapt and adjust projects in response to issues that arise internally and externally.

Interact with team and stakeholders in a professional manner, respecting differences, to ensure a collaborative project environment.

Utilize technology tools for communication, collaboration, information management, and decision support.

Implement general business concepts, practices, and tools to facilitate project success.

Apply legal and ethical standards where appropriate.

Adapt project management practices to meet the needs of stakeholders from multiple sectors of the economy (i.e. consulting, government, arts, media, and charity organizations).

Apply project management practices to the launch of new programs, initiatives, products, services, and events relative to the needs of stakeholders.

Appraise the role of project management in organization change.

**Course Outcomes/Objectives**

Topic	Objectives
<b>Foundational Concepts of Project Management, Task Planning and Progress Evaluation</b>	Discuss and understand project management history, background and methods
	Understand a traditional project management lifecycle
	Compare and contrast different project management methodologies
<b>Agile Project Management</b>	Understand and apply an Agile project management methodology
	Create business value models and case analyses
	Create a project balance sheet
<b>Hybrid and Waterfall Project Management Models</b>	Identify and apply quality values, principles and practices
	Compare and contrast Agile to different forms of project management
	Identify and apply process limits and benchmarks



**Developing Scope and  
Requirements**







**ANIM 122 – 6 – 12**

**Animation Principles II**

**Course revision:**

**Calendar description**

**Course content**

**Rationale:**

The content of the course has been greatly expanded. It now includes much more theory as well as in-depth instruction in the use of industry standard software - Harmony for 2D and Maya for 3D. As a result, the calendar description, learning outcomes and schedule all need to be updated.

**Calendar description:**

Existing:



**Credits:**

<b>Existing</b>	<b>Proposed</b>
3	1.5

**Implementation date:** September 2019

**Cost:** N/A

**ANIM 214 – 1.5 – 3**

**Layout and Design III**

**Course revision:**

**Contact hours**

**Credits**

**Rationale:**

The Animation Program assignment of courses and course hours was an estimate based on theoretical planning. However, as it turns out, in practice, the estimated course hours assigned for some classes have been overestimated and the estimated course hours assigned for other classes have been underestimated.

## **Business**

**OADM 132 – 15 hours**

**Organizational Software**

**New course**

**Rationale:**

Employers have been telling us through practicum placements that students need more knowledge in the power of using all of the capabilities of Outlook. We are removing some content from OADM 136 Office



<b>Expectations:</b>	Students must attend and participate in at least 70% percent of classes in order to write the final exam, which must be taken when scheduled. All assignments must be submitted before the final exam may be written. Passing grade is 70 percent. See program policy manual for more information.
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**Implementation date:** September 2019

**Cost:** N/A

**OADM 136 <sup>C</sup> 75 hours                      Office Procedures**

**Course revision:**

**Calendar description**

**Contact hours**

**Content**

**Rationale:**

Employers in the valley have informed us our students need more training on Microsoft Outlook. We are moving some of the content from Office Procedures into the new course OADM 132 Organizational Software to meet the needs of employers.

**Calendar description**



**Calendar description:**

This course is a continuation of OADM 169A Spreadsheets I that includes spreadsheet advanced functions and capabilities of Microsoft Excel. The students will be able to create professional, attractive, multi-tabbed workbooks that include formulas, charts, graphics, maps, and macros. They will also be able to manage spreadsheet templates, combine multiple worksheets and workbooks, and will work with data tables, queries, and pivot tables.

Students with credit for OADM 169 cannot take OADM 169B for additional credit.

**Prerequisites:**

OADM 169A

**Course outline:**

<i>Office Administration Department Okanagan School of Business</i>		
OADM 169B	<b>Spreadsheets II</b> Course Outline	30 hours
Instructor:		

**Course Description:**

This course is a continuation of OADM 169A Spreadsheets I that includes spreadsheet advanced functions and capabilities of Microsoft Excel. The students will be able to create professional, attractive, multi-tabbed workbooks that include formulas, charts, graphics, maps, and macros. They will also be able to manage spreadsheet templates, combine multiple worksheets and workbooks, and will work with data tables, queries, and pivot tables. Students with credit for OADM 169 cannot take OADM 169B for additional credit.

**Text and Resources:**

*Microsoft Excel 2016, E-Lab Access - Labyrinth Learning*

Cost: N/A

### Accounting/Bookkeeping Certificate

#### Program revision:

##### Program outline

#### Rationale:

OADM 169 Spreadsheets is a 60-hour course that includes advanced formulas as well as pivot tables. The Office Assistant students are not required to have the advanced knowledge of Microsoft Excel as they are training to be receptionists and junior clerks so we are splitting the course into Spreadsheets I and II. Spreadsheets I will be a required course for the Office Assistant students and Spreadsheets I and II will be required for the Administrative Assistant students who are doing the more advanced program. This program revision is to implement this change.

#### Program outline:

Current Program Outline	Hours	Proposed Program Outline	Hours
<a href="#">OADM 130</a> Business Math and Calculators	60	<a href="#">OADM 130</a> Business Math and Calculators	60
<a href="#">OADM 142</a> Payroll Accounting	45	<a href="#">OADM 142</a> Payroll Accounting	45
<a href="#">OADM 143</a> Accounting I	90	<a href="#">OADM 143</a> Accounting I	90
<a href="#">OADM 144</a> Accounting II	60	<a href="#">OADM 144</a> Accounting II	60
<a href="#">OADM 145</a> Essential Office			



<a href="#">OADO 175</a> Word Processing I One of: <a href="#">OADM 129</a> Word Processing II <a href="#">OADO 176</a> Word Processing II	75		
One of: <a href="#">OADM 180</a> Self-Management Skills <a href="#">OADO 180</a> Human Relations	30		
One of: <a href="#">OADM 181</a> Job Search Techniques <a href="#">OADO 181</a> Job Search	30		
One of: <a href="#">OADM 182</a> Office Practicum	90		
Total hours	1095		

**Implementation date:** September 2019

**Cost:** N/A

**Office Assistant Certificate**

**Program revision:**

**Program outline**

**Rationale:**

OADM 169 Spreadsheets is a 60-hour course that includes advanced formulas as well as pivot tables. The Office Assistant students are not required to have the advanced knowledge of Microsoft Excel as they are training to be receptionists and junior clerks so we are splitting the course into Spreadsheets I and II.

Spreadsheets I will be a required course for the Office Assistant students and Spreadsheets I and II will be required for the Administrative Assistant students who are doing the more advanced program.

Time freed up from reducing Software by 30 hours is used to add OADM 165 Presentation Graphics to this program.

Upon reviewing our progra-10(to5(v)o5(v)o5(TJET u)-n(e m)-JETC)-22(o as)-2( p(ng)-gJETC)-22(al)18( )]9(I )a4(ds)- (ts)-4n

[OADO 173](#) Keyboarding I  
[OADO 174](#) Keyboarding II  
One of:  
[OADM 128](#) Word Processing I