Items approved by Education Council March 9, 2017

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Science Technology and Health Programs

Electronic Engineering Technology Bridge to UBC Okanagan Electrical Bridge Program revision:

Admission requirements

Rationale:

To advise applicants that there is a prerequisite requirement for CHEM 111that will need to be met to enroll in the course.

Admission requirements:

Current:

Completion of Okanagan College's Electronic Engineering Technology diploma program with a minimum graduating grade average of 80%.

Proposed:

Completion of Okanagan College's Electronic Engineering Technology diploma program with a minimum graduating grade average of 80%. Students entering this bridge program are advised to complete either Chemistry 12 with a minimum 60% grade or Chemistry 11 with a minimum 75% grade to be eligible to enrol in CHEM 111.

Reason:

To reflect the required course prerequisite for CHEM 111. Implementation date: Feb 2017 Costs: n/a

NTEN 123 – 3 – 5.5 Network Applications of Analog and Digital Systems

Course revision:

• Prerequisites

Rationale:

Course work in NTEN 123 requires competency with the material from two prerequisite courses. It is possible for a student to be unsuccessful in NTEN 117 and still take NTEN 123. This means that the student does not have the assumed skills and knowledge and so has a low probability of success. By having the additional prerequisite, this is addressed. **Prerequisites:**

	Current	Proposed
Prerequisites	NTEN 113	NTEN 113, NTEN 117

Implementation date: Aug 2017 Costs: n/a

NTEN 207 – 3 – 5.5 Enterprise Telecommunications

Course revision:

• Prerequisites

Rationale:

NTEN 123 has recently been added to the program and fills a gap that existed between the content of NTEN 113 and NTEN 207. This revision updates the prerequisite to be the more advanced course NTEN 123.

Prerequisites:

		Current	Proposed
	Prerequisites	NTEN 113, NTEN 137	NTEN 123, NTEN 137

Implementation date: Aug 2017

Costs: n/a

NTEN 228 – 3 – 5.5 Course revision:

Scripting for Network and System Administrators

- Course Code new code NTEN 128
- Corequisite
- Prerequisite

Rationale:

Historically, the diploma's program flow introduced students to the concepts and then this course added on the skills needed to perform the same tasks using scripts. As scripting has become more prevalent and expected in industry, it makes sense to introduce scripting earlier in the program flow so that as tasks are taught, the corresponding scripting techniques can be used right away. This proposal moves the existing course to an earlier point in the program flow and restructures its content to recognize that prior to or concurrently with other subjects instead of as a follow-on course.

Prerequisites:

	Current	Proposed
Prerequisites	NTEN 112 or COSC 111,	NTEN 112 or COSC 111
	NTEN 127, NTEN 219	
Corequisite		NTEN 127

Implementation date: Aug 2018 Costs: n/a

NTEN 223 – 3 – 5.5 Internet of Things

Rationale:

The Internet of Things (IoT) is the next frontier in information technology. Businesses are exploring how leveraging IoT can make real differences to their ability to thrive. The demand for people who can understand, implement, and maintain an IoT solution is increasing rapidly and is expected to do so for some time. Just like virtualization before it, access to the resources of IoT will become key to the competitive success of many business models. We expect that an IoT skill set will become an essential part of any Information Technologist's training and ongoing work.

Calendar description:

Learners will explore the involved interconnection of IoT concepts from network edge through data storage and analysis. IoT data transport protocols, data storage solutions and introductory data analysis techniques will be introduced. Learners will compare and utilize existing enterprise IoT solutions as

potential platforms. Emphasis is placed on building and utilizing an edge to storage solution, enabling detailed data discovery and analysis. (3,2.5,0) **Prerequisites:** NTEN 123, NTEN 128, NTEN 211, NTEN 219 **Implementation date:** January 2019 **Costs:** n/a

Network and Telecommunications Engineering Technology Diploma Course revision:

- Addition of courses
- Deletion of courses
- Program outline
- Resequencing of courses
- Revision of courses

Rationale:

Through ongoing review of the diploma program and in consultation with the Program Advisory Committee, the department has identified several areas where program outcomes and industry expectations need to be re-aligned. This is an expected event as the information technology industry evolves so rapidly.

Program description:

This diploma program produces graduates who possess the skill set, attitude and knowledge to establish careers as certified technologists in the fields of local-area and wide-area voice, video and integrated data communications. Course work stresses messaging principles and provides insight into wired, wireless and fibre-optic signal propagation.

The rapid development and enrichment of global communications has produced a worldwide reliance on IP networks and the convergence of data and telecommunications has stimulated the need for larger and more integrated network implementations. Network and Telecommunications engineering technologists are trained to design, configure and support this telecommunications infrastructure. They are employed as network support specialists, network operations and telecommunications analysts, communications integrators, network administrators and consultants.

Graduates will possess the:

- skill sets, attitude and knowledge to establish careers and work efficiently as certified technologists in the fields of network and telecommunications engineering;
- understanding of how organizations function to provide effective integration of company operations and the networked corporate systems required today and in the future;
- necessary communication skills and knowledge of business operations required by corporate managerial roles or to start their own business as independent entrepreneurs;
- knowledge and practical experience to confidently challenge exams that form part of current industry certifications; and
- > general theoretical skills required to pursue life-long learning and/or continue their education.

Program outline:

First Year	
Semester One	Semester One - proposed
NTEN 111 Computer Components and Peripherals	NTEN 111 Computer Components and Peripherals
NTEN 112 Computer Programming I	NTEN 112 Computer Programming I
NTEN 113 Voice and Data Communications Infrastructure	NTEN 113 Voice and Data Communications Infrastructure
NTEN 117 Networks and Telecommunications I	NTEN 117 Networks and Telecommunications I

CMNS 113 Technical Communication for Information Technology	CMNS 113 Technical Communication for Information Technology
MATH 127 Math for Network & Telecom Engineering Tech I	MATH 127 Math for Network & Telecom Engineering Tech I
Semester Two	Semester Two - proposed
NTEN 123 Network Applications of Analog and Digital Systems	NTEN 123 Network Applications of Analog and Digital Systems
NTEN 127 Local Area Network Management	NTEN 127 Local Area Network Management
NTEN 137 Routing and Switching I	NTEN 137 Routing and Switching I
CMNS 123 Analysis and Reporting for Information Technology	CMNS 123 Analysis and Reporting for Information Technology
MATH 149 Math for Network & Telecom Engineering Tech II	NTEN 128 Scripting for Network and System Administrators
One elective (3 credits)	One elective (3 credits)
Extended Semester (3 weeks)	Extended Semester (3 weeks)
NTEN 199 Topics in Internetworking	NTEN 199 Topics in Internetworking
Second Year	
Semester Three	Semester Three - proposed
NTEN 207 Enterprise Telecommunications	NTEN 207 Enterprise Telecommunications
NTEN 211 Virtualization for Enterprise System Administrators	NTEN 211 Virtualization for Enterprise System Administrators
NTEN 217 Routing and Switching II	NTEN 217 Routing and Switching II
NTEN 219 Linux Server Management	NTEN 219 Linux Server Management
Two electives (6 credits)	Two electives (6 credits)
Semester Four	Semester Four - proposed
NTEN 225 Internetwork Security I	NTEN 225 Internetwork Security I
NTEN 227 Carrier Telecommunications	NTEN 227 Carrier Telecommunications
NTEN 228 Scripting for Network and System Administrators	NTEN 223 Internet of Things
NTEN 299 Network Project	NTEN 299 Network Project
BUAD 231 Project Management in an Information Technology Environment	BUAD 231 Project Management in an Information Technology Environment

Implementation date: Aug 2017 Costs: n/a

MATH 390 – 3 – 3 Special Topics in Mathematics

Rationale:

For students who are interested in Mathematics our current upper level course offerings are insufficient. In order to offer a variety of different topics, we would like to be able to have a Special Topics course in order to service student demand.

Calendar description:

This course will focus on advanced or specialized topics in Mathematics. Students should consult the department chair for the specific topic to be offered in any given year. With different topics, this course may be taken more than once for credit. (3,0,0)

Prerequisites: Permission of the Instructor Implementation date: Aug 2017 Costs:

	One-time	Ongoing
Staffing		8,255.00

MATH 490 – 3 – 4 Special Topics in Mathematics

Rationale:

For students who are interested in Mathematics our current upper level course offerings are insufficient. In order to offer a variety of different topics, we would like to be able to have a Special Topics course in order to service student demand.

Calendar description:

This course will focus on advanced or specialized topics in Mathematics. Students should consult the department chair for the specific topic to be offered in any given year. With different topics, this course may be taken more than once for credit. (4,0,0)

Prerequisites: Permission of the Instructor

Implementation date: Aug 2017

Costs:

	One-time	Ongoing
Staffing		10, 979.15

STAT 310 – 3 – 5 Regression Analysis

Rationale:

- 1. This course will form part of the proposed BUAD Post Baccalaureate Degree in Marketing and Data Analytics.
- 2. This course will be transferable to UBC Okanagan as it is identical to their course.
- 3. This course could be used as a 3rd year BUAD elective.
- 4. This course will be part of the proposed CIS Post Baccalaureate Program in Data Analysis.
- 5. This course will be part of the Mathematics department's proposed Concentration in Statistics.

Calendar description:

In this course learners study the theory and application of regression analysis, including residual analysis, diagnostics, transformations, model selection and checking, weighted least squares, and nonlinear models. Additional topics may include inverse, robust, ridge, and logistic regression. (3,2,0)

Prerequisites: STAT 230 and MATH 221 or Admission to the Post Baccalaureate Degree in Marketing and Data Analytics.

Implementation date: Sept 2017

Costs:

	One-time	Ongoing
Staffing		10, 979.15

STAT 311 – 3 – 5 Modern Statistical Methods

Rationale:

- 1. This course will form part of the proposed BUAD Post Baccalaureate Degree in Marketing and Data Analytics.
- 2. This course will be transferable to UBC Okanagan as it is identical to their course.
- 3. This course could be used as a 3rd year BUAD elective.
- 4. This course will be part of the proposed CIS Post Baccalaureate Program in Data Analysis.

5. This course will be part of the Mathematics department's proposed Concentration in Statistics.

Calendar description:

In this course, learners study hypothesis testing, bootstrap, jackknife, permutation tests, additive models, robust smoothers, m-estimators, rank-based methods, nonparametric methods, and unsupervised methods. (3,2,0)

Prerequisites: STAT 230 and MATH 221 or Admission to the Post Baccalaureate Degree in Marketing and Data Analytics.

Implementation date: Sept 2017

Costs:

	One-time	Ongoing
Staffing		10, 979.15

STAT 390 – 3 – 3 Special Topics in Statistics

Rationale:

For students who are interested in Statistics, our current course offerings are insufficient. In order to offer a variety of different topics, we would like to be able to have a Special Topics course in order to service student demand.

Calendar description:

This course will focus on advanced or specialized topics in Statistics. Students should consult the department chair for the specific topic to be offered in any given year. With different topics, this course may be taken more than once for credit. (3,0,0)

Prerequisites: Permission of the Instructor

Implementation date: Aug 2017

Costs:

	One-time	Ongoing
Staffing		8,255.00

STAT 490 – 3 – 6 Special Topics in Statistics

Rationale:

For students who are interested in Statistics, our current course offerings are insufficient. In order to offer a variety of different topics, we would like to be able to have a Special Topics course in order to service student demand.

Calendar description:

This course will focus on advanced or specialized topics in Statistics. Students should consult the department chair for the specific topic to be offered in any given year. With different topics, this course may be taken more than once for credit. (3,3,0)

Prerequisites: Permission of the Instructor

Implementation date: Sept 2017

Costs:

	One-time	Ongoing
Staffing		12,382.50

COSC 224 - 3 - 7

Projects in Computer Science

Course revision:

- Contact hours change (3,3,1) to (3,3,0)
- Description

Rationale:

A weekly seminar hour per group is no longer needed for team meetings. Team meetings with professor will now occur during lab section and lecture section during the months of February and March. The duration of the meetings will be approximately 30 minutes every second week. This will be a more effective use of time. Office hours with professor will be available should students need additional time. This course has three hours of lecture and a three hour lab every week. Students complete many hours on their software development project outside of scheduled contact hours. With ten groups in 2015/2016 it was not possible to plan an additional ten hours of meetings each week and we had to use the available lab/lecture times. This change reflects the actual practice of the way the course is being delivered. **Calendar description:**

Current:

This capstone course for diploma students, synthesizes the material learned in the previous three semesters, including programming, systems analysis and design, networking, and database design and development, or are learning in a corequisite course, to complete a project for a client, chosen from a selection provided by the professor. Students will attend a weekly one-hour seminar. (3,3,1)

Proposed

This capstone course for diploma students, synthesizes the material learned in the previous three semesters, including programming, systems analysis and design, networking, and database design and development, or is learning in a corequisite course, to complete a project for a client. Students will choose a project from a selection provided by the professor. (3,3,0) **Contact hours:**

	Current	Proposed
Lecture	3	3
Lab	3	3
Seminar	1	0

Implementation date: Jan 2018

Costs: n/a

Bachelor of Computer Information Systems Program revision:

Resequencing of courses

Rationale:

Update the program outline to clarify course options.

Changes:

- From the Design and Development option, under the "One of" section, remove COSC 341 as it is a mandatory course in the Software Design and Development Option.
- > From the Database Systems Option, remove the following:
 - One of (if not chosen above):
 - BUAD 335 Electronic Commerce
 - COSC 360 Server-Side Web Systems
 - COSC 341 User Experience
- > Under Group 2 notation at the bottom of the calendar, add the following sentence:

This group does not include science courses.

Program outline:

Table of BCIS program revisions:

1. Remove or COSC 341 User Experience (341 is mandatory)

Before:	Proposed:
Third- and Fourth-Year courses for the Software	Third- and Fourth-Year courses for the Software
Design and Development Option	Design and Development Option
BUAD 123 Management Principles	BUAD 123 Management Principles
COSC 341 User Experience	COSC 341 User Experience
COSC 470 Software Engineering	COSC 470 Software Engineering
COSC 471 Software Engineering Project	COSC 471 Software Engineering Project
PHIL 331 Ethics of Computer Usage	PHIL 331 Ethics of Computer Usage
At least one of:	At least one of:
COSC 318 Network Programming	COSC 318 Network Programming
COSC 328 Linux Networking	COSC 328 Linux Networking
One of:	One of:
COSC 331 Middleware Development	COSC 331 Middleware Development
or COSC 360 Server-Side Web Systems	or COSC 360 Server-Side Web Systems
or <u>COSC 341</u> User Experience	(removed from here)
Two of:	Two of:
COSC 404 Advanced Database Management	COSC 404 Advanced Database Management
Systems	Systems

COSC 416 Topics in Database	COSC 416 Topics in Database
COSC 434 Database Administration	COSC 434 Database Administration
At least one of:	At least one of:
COSC 416 Topics in Database	COSC 416 Topics in Database
COSC 417 Topics in Computer Networks	COSC 417 Topics in Computer Networks
COSC 419 Topics in Computer Science	COSC 419 Topics in Computer Science
Two three-credit courses (not already chosen) from:	Two three-credit courses (not already chosen) from:
COSC 318 Network Programming	COSC 318 Network Programming
COSC 328 Linux Networking	COSC 328 Linux Networking
COSC 331 Middleware Development	COSC 331 Middleware Development
COSC 360 Server-Side Web Systems	COSC 360 Server-Side Web Systems
COSC 417 Topics in Computer Networks	COSC 417 Topics in Computer Networks
COSC 419 Topics in Computer Science	COSC 419 Topics in Computer Science
Eight other three-credit courses	Eight other three-credit courses

2. Remove "One of (if not chosen above): BUAD 335 Electronic Commerce or COSC 360 Server-Side Web Systems or COSC 341 User Experience" from the Database Option of BCIS.

Before:	Proposed:
Third- and Fourth-Year courses for the Database	Third- and Fourth-Year courses for the Database
Systems Option	Systems Option
BUAD 123 Management Principles	BUAD 123 Management Principles
COSC 404 Advanced Database Management	COSC 404 Advanced Database Management
Systems	Systems
COSC 416 Topics in Database	COSC 416 Topics in Database
COSC 434 Database Administration	COSC 434 Database Administration
COSC 470 Software Engineering	COSC 470 Software Engineering
COSC 471 Software Engineering Project	COSC 471 Software Engineering Project
PHIL 331 Ethics of Computer Usage	PHIL 331 Ethics of Computer Usage
One of:	One of:
BUAD 335 Electronic Commerce	BUAD 335 Electronic Commerce
or COSC 331 Middleware Development	or COSC 331 Middleware Development
or <u>COSC 341</u> User Experience	or <u>COSC 341</u> User Experience
or COSC 360 Server-Side Web Systems	or COSC 360 Server-Side Web Systems
At least one of:	At least one of:
COSC 318 Network Programming	COSC 318 Network Programming
or COSC 328 Linux Networking	or COSC 328 Linux Networking
One of (if not chosen above):	(removed here)
BUAD 335 Electronic Commerce	At least one of:
COSC 360 Server-Side Web Systems	COSC 417 Topics in Computer Networks
COSC 341 User Experience	COSC 419 Topics in Computer Science
At least one of:	Two three-credit courses (not already chosen) from:
COSC 417 Topics in Computer Networks	COSC 318 Network Programming
COSC 419 Topics in Computer Science	COSC 328 Linux Networking
Two three-credit courses (not already chosen) from:	COSC 331 Middleware Development
COSC 318 Network Programming	COSC 360 Server-Side Web Systems
COSC 328 Linux Networking	COSC 417 Topics in Computer Networks
COSC 331 Middleware Development	COSC 419 Topics in Computer Science
COSC 360 Server-Side Web Systems	Eight other three-credit courses
COSC 417 Topics in Computer Networks	
COSC 419 Topics in Computer Science	
Eight other three-credit courses	

3. Change the Group 2 specification in the BCIS Program Outline to:

	0		0
Before:			Proposed:

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"Group 2: refers to all courses in Communications and courses in other subjects which lead to an Associate of Arts Degree. "Group 2: refers to all courses in Communications and courses in other subjects which lead to an Associate of Arts Degree. This group does not include science courses."

Implementation date: Sept 2017 Costs: n/a

Office Administration - Schedule 2017-2018

Accounting/Bookkeeping Certificate (20 weeks)

Kelowna <u>2017</u>	
September 4	Labour Day (no classes)
September 5	Orientation
September 6	Classes start
October 9	Thanksgiving Day (no classes)
November 11	Remembrance Day
November 13	Statutory Holiday (no classes)
December 18 19	Last day of classes before Christmas break
December 24 – January 1	Christmas Closure (no classes) – Okanagan College closed to the public
<u>2018</u>	
January-3 2	Classes resume

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February 8	Classes end

Administrative Assistant Certificate (37 weeks)

Kelowna, Salmon Arm, Verno 2017	on and a second s
September 4	Labour Day (no classes)
September 5	Orientation
September 6	Classes start
October 9	Thanksgiving Day (no classes)
November 11	Remembrance Day
November 13	Statutory Holiday (no classes)
December 18 19	Last day of classes before Christmas break
December 24 – January 1	Christmas Closure (no classes) – Okanagan College closed to the public

<u>2018</u>	
January 3 2	Classes resume
February 12	Family Day (no classes)
March 19 – 23 26 - 29	Mid-Semester Break (no classes)
March 30 – April 2	Easter (no classes)
May 21	Victoria Day (no classes)
June 21 19	Classes End

Office Assistant Certificate (17 weeks)

Kelowna, Salmon Arm, Vernon, <u>Penticton</u> <u>2017</u>		
September 4	Labour Day (no classes)	
September 5	Orientation	
September 6	Classes start	
October 9	Thanksgiving Day (no classes)	
November 11	Remembrance Day	
November 13	Statutory Holiday (no classes)	
December 19	Last day of classes before Christmas break	
December 24 – January 1	Christmas Closure (no classes) – Okanagan College closed to the public	

<u>2018</u>

January 3 2	Classes resume
January 18	Classes end

Office Assistant Certificate (17 weeks)

Kelowna <u>2018</u>	
February 13	Classes start
March 20 – 24 26 - 29	Mid-Semester Break (no classes)
March 30 – April 2	Easter (no classes)
May 21	Victoria Day (no classes)
June 22 21	Classes End

Legal Administrative Assistant Certificate (Litigation - 19 weeks)

Kelowna only <u>2017</u> September 4

Labour Day (no classes)

September 5	Orientation
September 6	Classes start
October 9	Thanksgiving Day (no classes)
November 11	Remembrance Day (no classes)
November 13	Statutory Holiday (no classes)
December 19	Last day of classes before Christmas break
December 24 – January 1	Christmas Closure (no classes) – Okanagan College closed to the public
<u>2018</u>	
January 3 2	Classes resume
January 29 23	Classes end

Legal Administrative Assistant Certificate (Corporate/Conveyancing 20 weeks)

Kelowna only <u>2018</u>	
January 30	Classes Start
February 12	Family Day (no classes)
March 30 – April 2	Easter (no classes)
May 21	Victoria Day (no classes)
June 19	Classes end

Candidates for Graduation approved – March 9, 2017 Education Council Meeting

Program	# of Students
Accounting/Bookkeeping Certificate (September 6, 2016 – February 9, 2017)	10
Associate of Arts Degree	1
Bachelor of Business Administration	1
British Columbia Adult Graduation Diploma	1
Business Administration Diploma	1
Civil Engineering Technology Diploma	1
Culinary Arts Certificate (February 9, 2016 – February 3, 2017)	7
Early Childhood Education Certificate	1
English for Academic Purposes	2
Health Care Assistant Certificate (August 22, 2016 – February 22, 2017)	15
Metal Fabricator (Fitter) Certificate (September 12, 2016 – February 24, 2016	7
Office Assistant Certificate	2
Office Assistant Certificate (September 6, 2016 – February 10, 2017) Kelowna	4
Practical Nursing Diploma	1
Welder Foundation Certificate	2
Total	56