

Appendix 6C - Course Information Sheet

Instructions:	To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.											
Course number:	APSC169											
Course title:	Fundamentals of Sustainable Engineering Design											
Calendar web link:	http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC											
* Notes:												
* Provide explanatory notes on inconsistencies with calendar information (if applicable)												
CEAB course type	K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X	No						EnvSust	Impacts				
Compulsory	Elective group	AU %					25%		40%		35%	
		AU Total	49		0		12		20		17	
CEAB graduate attribute content** (content code):	1	2	3	4	5	6	7	8	9	10	11	12
	KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL
** Enter content level codes												
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)												
First row : Please list the most appropriate instructor to act as course contact												
Instructors	Family name		First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	
Course-contact	Taheri		Ray			No	<2011	>2023	PEng	PhD	Sr Lec	
Other(s)												
Course delivery and outcomes:	Acad credit	Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)		
		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter			
	3.0	3.0	2.0	13	13	20-50	20-50	74-70			11-15	
Major learning outcomes:	Learning outcome expectation for lecture and/or lab experience											
	1	Identify and characterize an engineering problem										
	2	Define the scope & goals of a project, describe state of the art and generate solution concepts										
	3	Design solutions for complex, open-ended engineering problems										
	4	Work effectively as a member and leader in teams										
	5	Communicate effectively										
	6	Be aware of the role of professional engineers and demonstrate professional behavior										
	7	Describe the impact of human activity on society & incorporate sustainability considerations in design										
	8	Incorporate economics and management into engineering practice										
	9	Address individual life-long learning										
	10											
	11											
12												
Laboratory experience details												
Lab type	Project	Specify the predominant laboratory experience type for this course/learning activity										
Number of labs	6	Specify the total number laboratory experiences for the course/learning activity										
Laboratory safety taught ?	Yes	Are students instructed in safety issues associated with the laboratory space and the specific learning experience?										
Laboratory safety examined ?	No	Is there verification, testing or checking that students have both received and understood safety issues?										
Required text(s): (required texts only not a reading list)	Author : Title : Publisher : Year											
	1	McCahan, et al. : Designing Engineers : Wiley : 2015										
	2											
	3											
	4											

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ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.															
Course number:		APSC171													
Course title:		Engineering Drawing and CAD/CAM													
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC													
* Notes:		* Provide explanatory notes on inconsistencies with calendar information (if applicable)													
CEAB course type		K-factor		Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design	
X		No													
Compulsory		Elective group		AU %		0		0		0		50%		50%	
		AU Total		49								25		25	
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL		
		I	I		I	A	I	I							
** Enter content level codes															
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)															
First row : Please list the most appropriate instructor to act as course contact															
Instructors		Family name				First name(s)				CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank
Course-contact		Taheri				Ray				No	<2011	>2023	PEng	PhD	Sr Lec
Other(s)															
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)			
		3.0		3.0 2.0		2 9		20-50		79-75		%		Letter	
Learning outcome expectation for lecture and/or lab experience															
Major learning outcomes:		1 Demonstrate ability to draw engineering 2D sketching and Orthographic													
		2 Demonstrate ability to draw engineering 3D Isometric and perspective sketches													
		3 Utilize SolidWorks as a powerful engineering drawing/modeling tool to create engineering drawings													
		4 Utilize the concept of engineering design cycles (from conceptualization to final design documentation step)													
		5 Demonstrate ability to work in a team, participate in group discussions, and communicate in an ethical and professional manner													
		6 Present end product to external judging panel effectively													
		7													
		8													
		9													
		10													
		11													
		12													
Laboratory experience															
Laboratory experience details															
Lab type		Specify the predominant laboratory experience type for this course/learning activity													
Number of labs		Specify the total number laboratory experiences for the course/learning activity													
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?													
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?													
Author : Title : Publisher : Year															
Required text(s): (required texts only not a reading list)		1 McAdam & Winn : Engineering Graphics: A Problem Solving Approach, 3rd Ed. (Customized version) : Pearson : 2007													
		2													
		3													
		4													

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Course number:													APSC172												
Course title:													Engineering Analysis I												
Calendar web link:													http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC												
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor		Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design											
X		No				DiffCalc	IntCalc																		
Compulsory		AU %		43		100%		0		0		0		0											
		AU Total		43		43		0		0		0		0											
CEAB graduate attribute content** (content code):		1	2	3	4	5	6	7	8	9	10	11	12												
		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL												
		I	I																						
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name				First name(s)				CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank										
Course-contact		Brereton				John Alan				No	2017		PEng	PhD	Jr Lec										
Other(s)		O'Leary				Stephen																			
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)													
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	%													
				3.0	1.0	2	7		20-50	64-60		16-20													
Major learning outcomes:													Learning outcome expectation for lecture and/or lab experience												
1													Apply mathematical rules; transform functions into other functions, function composition												
2													Demonstrate a comprehension of limits by utilizing limit laws and evaluating a limit												
3													Demonstrate a comprehension of limits by using limits to compute the derivative of a function												
4													Apply mathematical methods of differentiation for different classes of functions												
5													Apply mathematical methods by utilizing the derivative in applications relevant to the field of engineering												
6													Apply derivatives to find maximum, minimum, or otherwise optimal input values in problems relevant to engineering												
7													Demonstrate comprehension of integration by evaluating a definite integral and finding the area under a curve												
8													Demonstrate comprehension by correctly stating what a problem is asking and what steps are needed to solve it												
9													Interpret results in context of mathematics and evaluate whether results are reasonable												
10																									
11																									
12																									
Laboratory experience													Laboratory experience details												
Lab type													Specify the predominant laboratory experience type for this course/learning activity												
Number of labs													Specify the total number laboratory experiences for the course/learning activity												
Laboratory safety taught ?													Are students instructed in safety issues associated with the laboratory space and the specific learning experience?												
Laboratory safety examined ?													Is there verification, testing or checking that students have both received and understood safety issues?												
Required text(s): (required texts only not a reading list)													Author : Title : Publisher : Year												
1													Hass, Heil, & Weir : Thomas' Calculus: Early Transcendentals, 14th Ed. : Pearson : 2018												
2																									
3																									
4																									

Validation data

6	10										
8	85										
8	85										
8	85										
Yes	No										
	X	M									
DiffCalc	DiffEq	Discret	IntCalc	LinAlg	NMeths	Prob	Stats				
Chem	Earth	Life	Phys								
EngEcol	EnvSus	H&S	HumSS	Impact	OWCorr	PEthics					
0%	100%										
8	180	I	D	A							
2	36										
2	36										
<2011	2012	2013	2014	2015	2016	2017					
2017	2018	2019	2020	2021	2022	>2023					
PEng	EIT	ing	ingJr	LL	None						
DPhil	DSc	PhD	MPhil	MSc	MEng	MA	BSc	BEng	BA	Other	
Full	Assoc	Asst	Emer	Adj	Sr Lec	Jr Lec	Sess	Other			
Yes	No										
0.5	12.0	0	15	<5	5-10	10-20	20-50	>50			
>90	89-85	84-80	79-75	74-70	69-65	64-60	59-55	54-50	49-40	<40	
A+	A	A-	B+	B	C+	C	D+	D	E	F	
0	<1	1-2	3-5	6-10	11-15	16-20	21-30	>30			
0	85										
0	70	Hands-on									
1	12	Simulation									
Yes	No	Problem									
		Project									
		Demo									
0	85	Other									

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Instructions:														
Course number:		APSC173												
Course title:		Engineering Analysis II												
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC												
* Notes:														
* Provide explanatory notes on inconsistencies with calendar information (if applicable)														
CEAB course type		K-factor	Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design	
X		No			IntCalc									
Compulsory		Elective group	AU %		100%									
		AU Total	43		43		0		0		0		0	
CEAB graduate attribute content** (content code):		1	2	3	4	5	6	7	8	9	10	11	12	
		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	
		I	I										I	
** Enter content level codes														
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)														
First row : Please list the most appropriate instructor to act as course contact														
Instructors		Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	
Course-contact		Tiznobaik												
Other(s)														
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)		
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter		11-15	
				3.0	1.0	2	8		20-50	69-65				
Learning outcome expectation for lecture and/or lab experience														
Major learning outcomes:		1 Recognize when integration is necessary and be able to properly set up an integration problem 2 Compute integrals using techniques of integration, including inverse substitution, partial fractions and integration by parts 3 Determine the convergence or divergence of improper integrals and evaluate convergent improper integrals 4 Determine the convergence and divergence of sequences and infinite series 5 Compute the Taylor series generated by functions at a certain point 6 Graph polar coordinates, conics, and parametric equations 7 Convert from polar to Cartesian equations and from Cartesian to polar equations 8 Reflect on key concepts and applications to ensure understanding 9 10 11 12												
Laboratory experience														
Laboratory experience details														
Lab type		Specify the predominant laboratory experience type for this course/learning activity												
Number of labs		Specify the total number laboratory experiences for the course/learning activity												
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?												
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?												
Author : Title : Publisher : Year														
Required text(s): (required texts only not a reading list)		1 Hass, Heil, & Weir : Thomas' Calculus: Early Transcendentals, 14th Ed. : Pearson : 2018 2 3 4												

Validation data

6	10																					
8	85																					
8	85																					
8	85																					
Yes	No																					
	X		M																			
DiffCalc	DiffEq	Discrete	IntCalc	LinAlg	NMeths	Prob	Stats															
Chem	Earth	Life	Phys																			
EngEcon	EnvSus	H&S	HumSS	Impact:	OWCorr	PEthics																
0%	100%																					
8	180																					
	I		D		A																	
2	36																					
2	36																					
<2011	2012	2013	2014	2015	2016	2017																
2017	2018	2019	2020	2021	2022	>2023																
PEng	EIT	ing	ingJr	LL	None																	
DPhil	DSc	PhD	MPhil	MSc	MEng	MA	BSc	BEng	BA	Other												
Full	Assoc	Asst	Emer	Adj	Sr Lec	Jr Lec	Sess	Other														
Yes	No																					

0.5	12.0	0	15	<5	5-10	10-20	20-50	>50			
>90	89-85	84-80	79-75	74-70	69-65	64-60	59-55	54-50	49-40	<40	
A+	A	A-	B+	B	C+	C	D+	D	E	F	
0	<1	1-2	3-5	6-10	11-15	16-20	21-30	>30			
0	85										

0	70	Hands-on
1	12	Simulation
Yes	No	Problem
		Project
		Demo
0	85	Other

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To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:		APSC176											
Course title:		Engineering Communication											
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC											
* Notes:													
* Provide explanatory notes on inconsistencies with calendar information (if applicable)													
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X		No						OWComm					
Compulsory	Elective group	AU %						100%					
		AU Total	37	0		0		37		0		0	
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
** Enter content level codes													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors		Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank
Course-contact		Patterson			Laura			No	<2011	>2023	None	MA	Sr Lec
Other(s)		Eikenaar			Jannik			No	2017	>2023	None	PhD	Jr Lec
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)	
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	6-10	
				3.0		8				74-70			
Learning outcome expectation for lecture and/or lab experience													
Major learning outcomes:		1	Analyze the rhetorical situation of technical and scientific documents										
		2	Explore technical and scientific topics										
		3	Create effective persuasive documents / Write effective academic prose about technical and scientific documents										
		4	Implement a structured writing process										
		5	Collaborate on oral and written communication projects										
		6											
		7											
		8											
		9											
		10											
		11											
		12											
Laboratory experience													
Laboratory experience details													
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Author : Title : Publisher : Year													
Required text(s): (required texts only not a reading list)		1	Troyka & Hesse : Simon and Schuster Handbook for Writers, 6th Canadian Ed. : Pearson : 2013										
		2											
		3											
		4											

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Course number:													APSC177												
Course title:													Engineering Computation and Instrumentation												
Calendar web link:													http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC												
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design													
X		No																							
Compulsory	Elective group	AU %								100%															
		AU Total	43	0		0		0		43		0													
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL												
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank												
Course-contact																									
Other(s)		Chaaban			Anas			No	2018	>2023	None	PhD	Asst												
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)													
				Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter														
		3.0		3.0	1.0	2	10	10-20		69-65		16-20													
Learning outcome expectation for lecture and/or lab experience																									
Major learning outcomes:		1	List the basic building blocks of a computer and their functions																						
		2	Design a computer program using problem statements, data analysis and flowcharts																						
		3	Write computer programs that illustrate the students' understanding of introductory concepts in computer programming																						
		4	Design and write programs that input data from either a keyboard or a file, process the data and generate output																						
		5	Test and debug computer programs efficiently																						
		6	Construct computer programs to numerically solve engineering problems																						
		7																							
		8																							
		9																							
		10																							
		11																							
		12																							
Laboratory experience																									
Laboratory experience details																									
Lab type		Hands-on	Specify the predominant laboratory experience type for this course/learning activity																						
Number of labs		6	Specify the total number laboratory experiences for the course/learning activity																						
Laboratory safety taught ?		No	Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																						
Laboratory safety examined ?		No	Is there verification, testing or checking that students have both received and understood safety issues?																						
Author : Title : Publisher : Year																									
Required text(s): (required texts only not a reading list)		1																							
		2																							
		3																							
		4																							

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Course number:		APSC178										
Course title:		Electricity, Magnetism, and Waves										
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC										
* Notes:		* Provide explanatory notes on inconsistencies with calendar information (if applicable)										
CEAB course type	K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X	No		IntCalc	Prob	Phys							
Compulsory	AU %		50%		50%							
Elective group	AU Total	62	31		31		0		0		0	
CEAB graduate attribute content** (content code):	1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
** Enter content level codes												
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)												
First row : Please list the most appropriate instructor to act as course contact												
Instructors	Family name		First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	
Course-contact	Markley		Loic									
Other(s)												
Course delivery and outcomes:		Acad credit	Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)	
		4.0	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter		
			4.0	2.0	2	9		20-50	64-60		16-20	
Learning outcome expectation for lecture and/or lab experience												
Major learning outcomes:	1	Calculate the electric field and electric force created by charge distributions										
	2	Demonstrate an understanding of capacitance and dielectrics										
	3	Demonstrate an understanding of current, resistance, and electromotive force and apply methods to analyze DC circuits										
	4	Calculate the magnetic field and magnetic force created by current distributions										
	5	Demonstrate an understanding of electromagnetic induction and apply methods to solve for induced electromotive force										
	6	Demonstrate an understanding of inductance and apply methods to analyze direct current circuits containing inductors										
	7	Demonstrate an understanding of electromagnetic plane waves										
	8	Apply basic principles in optics to analyze light ray propagation										
	9											
	10											
	11											
	12											
Laboratory experience												
Laboratory experience details												
Lab type		Specify the predominant laboratory experience type for this course/learning activity										
Number of labs		Specify the total number laboratory experiences for the course/learning activity										
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?										
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?										
Author : Title : Publisher : Year												
Required text(s): (required texts only not a reading list)	1	Young & Freedman : University Physics with Modern Physics : Pearson : 2015										
	2											
	3											
	4											

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Instructions:													To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.												
Course number:													APSC179												
Course title:													Linear Algebra for Engineers												
Calendar web link:													http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC												
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor		Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design											
X		No				LinAlg																			
Compulsory		Elective group		AU %		100%																			
		AU Total		37		37		0		0		0		0											
CEAB graduate attribute content** (content code):		1	2	3	4	5	6	7	8	9	10	11	12												
		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL												
		I																							
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank												
Course-contact		Shirazi			Mehran																				
Other(s)																									
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)													
		3.0		Lec Lab/tut		Lec Lab/tut		Lab Tut		% Letter		74-70		11-15											
				3.0				2																	
Major learning outcomes:		Learning outcome expectation for lecture and/or lab experience																							
		1	Solve a system of linear equations using Gaussian elimination																						
		2	Perform elementary matrix operations																						
		3	Find the inverse of a matrix																						
		4	Calculate the determinant of a matrix using cofactor and Cramer's rule																						
		5	Understand the concept of linear dependence, basis, row space, column space, nullity and rank of a matrix																						
		6	Find eigenvalues and eigenvectors of a matrix																						
		7	Perform orthogonal diagonalization of real symmetric matrices																						
		8	Perform least square data fitting																						
		9																							
		10																							
		11																							
		12																							
Laboratory experience						Laboratory experience details																			
Lab type		Specify the predominant laboratory experience type for this course/learning activity																							
Number of labs		Specify the total number laboratory experiences for the course/learning activity																							
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																							
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?																							
Required text(s): (required texts only not a reading list)		Author : Title : Publisher : Year																							
		1																							
		2																							
		3																							
		4																							

Appendix 6C - Course Information Sheet

Instructions:													To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.												
Course number:													APSC180												
Course title:													Statics												
Calendar web link:													http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC												
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor		Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design											
X		No				LinAlg		Phys																	
Compulsory		AU %				25%		75%																	
Elective group		AU Total		49		12		37		0		0		0											
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL												
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name				First name(s)				CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank										
Course-contact		Goh				Seach Chyr (Ernest)				No	2016	>2023	PEng	PhD	Jr Lec										
Other(s)		Taheri				Ray				No	<2011	>2023	PEng	PhD	Sr Lec										
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)													
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	%													
				3.0	2.0	2	5	20-50		64-60	21-30														
Major learning outcomes:													Learning outcome expectation for lecture and/or lab experience												
1													Apply the fundamentals of linear algebra to define Cartesian components of forces in 2D and 3D systems												
2													Analyze engineering static problems in order to construct free body diagrams												
3													Solve equations of equilibrium (forces and moments) in rigid bodies, machines, trusses, and frames problems												
4													Identify internal forces in members of a truss and frame												
5													Apply the laws of static-dry-friction in order to solve equations of equilibrium												
6																									
7																									
8																									
9																									
10																									
11																									
12																									
Laboratory experience													Laboratory experience details												
Lab type													Specify the predominant laboratory experience type for this course/learning activity												
Number of labs													Specify the total number laboratory experiences for the course/learning activity												
Laboratory safety taught ?													Are students instructed in safety issues associated with the laboratory space and the specific learning experience?												
Laboratory safety examined ?													Is there verification, testing or checking that students have both received and understood safety issues?												
Required text(s): (required texts only not a reading list)													Author : Title : Publisher : Year												
1													Meriam, Kraige, & Bolton : Engineering Mechanics: Statics : Wiley : 2015												
2																									
3																									
4																									

Validation data

6 10

8 85

8 85

8 85

Yes No

X M

DiffCalc DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats

Chem Earth Life Phys

EngEcon EnvSus H&S HumSS Impact:OWCorr PEthics

0% 100%

8 180

I D A

2 36

2 36

<2011 2012 2013 2014 2015 2016 2017
2017 2018 2019 2020 2021 2022 >2023

PEng EIT ing ingJr LL None

DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other

Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other

Yes No

0.5 12.0 0 15 <5 5-10 10-20 20-50 >50

>90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40

A+ A A- B+ B C+ C D+ D E F

0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30

0 85

0 70 Hands-on

1 12 Simulation

Yes No Problem

Project

Demo

0 85 Other

Appendix 6C - Course Information Sheet

Instructions:													To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.												
Course number:													APSC181												
Course title:													Dynamics												
Calendar web link:													http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC												
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor		Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design											
X		No				DiffCalc	IntCalc	Phys																	
Compulsory		AU %		49		30%		40%		0		30%		0											
		AU Total		15		20		0		15		0													
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL												
I																									
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank												
Course-contact		Goh			Seach Chyr (Ernest)			No	2016	>2023	PEng	PhD	Jr Lec												
Other(s)																									
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)													
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	16-20													
				3.0	2.0	2	6		>50	64-60															
Learning outcome expectation for lecture and/or lab experience																									
Major learning outcomes:		Construct the free-body diagram for a given dynamics problem																							
		Simplify a complex dynamical system by disintegrating it into small elements of mass																							
		Use Newton's laws & develop a math framework that describes dynamics of given system (particle or rigid body)																							
		Solve equations of motion and interpret the corresponding physical meaning of the solution																							
Laboratory experience																									
Laboratory experience details																									
Lab type		Specify the predominant laboratory experience type for this course/learning activity																							
Number of labs		Specify the total number laboratory experiences for the course/learning activity																							
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																							
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?																							
Required text(s): (required texts only not a reading list)		Author : Title : Publisher : Year																							
		1 Meriam, Kraige & Bolton : Engineering Mechanics: Dynamics : Wiley : 2015																							
		2																							
		3																							
		4																							

Appendix 6C - Course Information Sheet

Instructions:													To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.												
Course number:													APSC182												
Course title:													Matter and Energy I												
Calendar web link:													http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC												
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor		Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design											
X		No						Chem Phys																	
Compulsory		Elective group		AU %		100%																			
		AU Total		37		0		37		0		0		0											
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL												
		I	I	I		I		I																	
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name				First name(s)				CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank										
Course-contact		Brereton				John Alan				No	2017		PEng	PhD	Jr Lec										
Other(s)		Uhl				Alexander																			
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)													
		3.0		Lec Lab/tut		Lec Lab/tut		Lab Tut		% Letter		16-20													
				2.0 2.0		2 15		20-50 >50		74-70															
Major learning outcomes:													Learning outcome expectation for lecture and/or lab experience												
1													Demonstrate comprehension of and apply physical, life and earth sciences as relevant to the field of engineering												
2													Formulate or apply appropriate procedures, tools, and techniques to collect data; Consider equipment limitations and testing methods.												
3													Produce clear and well-constructed documents in a variety of professional genres												
4													Read, understand, interpret, and synthesize technical and non-technical information												
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									
Laboratory experience													Laboratory experience details												
Lab type		Hands-on		Specify the predominant laboratory experience type for this course/learning activity																					
Number of labs		5		Specify the total number laboratory experiences for the course/learning activity																					
Laboratory safety taught ?		Yes		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																					
Laboratory safety examined ?		Yes		Is there verification, testing or checking that students have both received and understood safety issues?																					
Required text(s): (required texts only not a reading list)													Author : Title : Publisher : Year												
1													Customized textbook for UBCO: Matter & Energy I/II : Wiley : 2017												
2																									
3																									
4																									

Appendix 6C - Course Information Sheet

Instructions:													To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.												
Course number:													APSC183												
Course title:													Matter and Energy II												
Calendar web link:													http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC												
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design													
X		No				Chem																			
Compulsory	Elective group	AU %				100%																			
		AU Total	37	0		37		0		0		0													
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL												
		I		I		I	I	I																	
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank												
Course-contact		Roberts			Deborah																				
Other(s)		Pakpour																							
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)													
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)													
				2.0	2.0	2	15	20-50	>50	79-75		3-5													
Learning outcome expectation for lecture and/or lab experience																									
Major learning outcomes:		1	Demonstrate comprehension of and apply physical, life and earth sciences as relevant to the field of engineering																						
		2	Create an appropriate model to describe a problem, articulate assumptions & approximations																						
		3	Identify most promising solution approaches																						
		4	Evaluate validity of results; Compare model results with available data; Draw substantiated conclusions																						
		5	Formulate or apply appropriate procedures, tools, and techniques to collect data; Consider equipment limitations and methods																						
		6	Formulate or apply appropriate procedures, tools, and techniques to analyze and process data to reach appropriate conclusions																						
		7	Select or apply appropriate laboratory equipment or techniques to model, analyze, or visualize an engineering task																						
		8	Recognize a variety of working and learning preferences and world-views; Appreciate the value of diversity on a team																						
		9	Participate effectively in oral exchanges with technical and non-technical personnel																						
		10																							
		11																							
		12																							
Laboratory experience																									
Laboratory experience details																									
Lab type		Hands-on	Specify the predominant laboratory experience type for this course/learning activity																						
Number of labs		5	Specify the total number laboratory experiences for the course/learning activity																						
Laboratory safety taught ?		Yes	Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																						
Laboratory safety examined ?		Yes	Is there verification, testing or checking that students have both received and understood safety issues?																						
Author : Title : Publisher : Year																									
Required text(s): (required texts only not a reading list)		1	Customized textbook for UBCO: Matter & Energy I/II : Wiley : 2017																						
		2																							
		3																							
		4																							

Validation data

	6	10													
	8	85													
	8	85													
	8	85													
Yes	No														
	X	M													
DiffCalc	DiffEq	Discrete	IntCalc	LinAlg	NMeths	Prob	Stats								
Chem	Earth	Life	Phys												
EngEcon	EnvSus	H&S	HumSS	Impact:	OWCorr	PEthics									
0%	100%														
8	180														
	I	D	A												
2	36														
2	36														
<2011	2012	2013	2014	2015	2016	2017									
2017	2018	2019	2020	2021	2022	>2023									
PEng	EIT	ing	ingJr	LL	None										
DPhil	DSc	PhD	MPhil	MSc	MEng	MA	BSc	BEng	BA	Other					
Full	Assoc	Asst	Emer	Adj	Sr Lec	Jr Lec	Sess	Other							
Yes	No														
0.5	12.0	0	15	<5	5-10	10-20	20-50	>50							
>90	89-85	84-80	79-75	74-70	69-65	64-60	59-55	54-50	49-40	<40					
A+	A	A-	B+	B	C+	C	D+	D	E	F					
0	<1	1-2	3-5	6-10	11-15	16-20	21-30	>30							
0	85														
0	70	Hands-on													
1	12	Simulation													
Yes	No	Problem													
		Project													
		Demo													
0	85	Other													

Appendix 6C - Course Information Sheet

Instructions: To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content.
ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.

Course number: APSC201
 Course title: Technical Communication
 Calendar web link: <http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC>

* Notes:
 * Provide explanatory notes on inconsistencies with calendar information (if applicable)

CEAB course type	K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X	No							OWComm				
Compulsory	AU %							100%				
Elective group	AU Total	37	0		0		37		0		0	

CEAB graduate attribute content** (content code):	1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
					D	D	D					D

** Enter content level codes
 Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)
 First row : Please list the most appropriate instructor to act as course contact

Instructors	Family name	First name(s)	CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank
Course-contact	Patterson	Laura	No	<2011	>2023	None	MA	Sr Lec
	Eikenaar	Jannik	No	2014	>2023	None	PhD	Jr Lec
Other(s)								

Course delivery and outcomes:	Acad credit	Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)
		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	
	3.0	3.0		8				74-70		6-10

Major learning outcomes:	Learning outcome expectation for lecture and/or lab experience	
	1	Analyze the rhetorical situation of technical communication in engineering
	2	Create, design, and write effective, ethical documents
	3	Collaborate on oral and written communication projects
	4	
	5	
	6	
	7	
	8	
	9	
	10	
	11	
12		

Laboratory experience		Laboratory experience details	
Lab type		Specify the predominant laboratory experience type for this course/learning activity	
Number of labs		Specify the total number laboratory experiences for the course/learning activity	
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?	
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?	

Required text(s): (required texts only not a reading list)	Author : Title : Publisher : Year	
	1	Markel & Selber : Technical Communication, 12th Ed. : Bedford / St. Martin's : 2018
	2	
	4	

Appendix 6C - Course Information Sheet

Instructions:													To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.												
Course number:													APSC246												
Course title:													System Dynamics												
Calendar web link:													http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC												
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor		Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design											
X		No				DiffEq	DiffCalc																		
Compulsory		AU %				75%						25%													
		AU Total		43		32		0		0		11		0											
CEAB graduate attribute content** (content code):		1	2	3	4	5	6	7	8	9	10	11	12												
		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL												
		D	D																						
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name				First name(s)				CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank										
Course-contact		Zarifi																							
Other(s)																									
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)													
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	%													
				3.0	1.0	2	5		>50	69-65		11-15													
Learning outcome expectation for lecture and/or lab experience																									
Major learning outcomes:		1	Identify different types of systems, signals and responses																						
		2	Identify the linearity, time variance, causality of a given system																						
		3	Describe the physical meaning of fundamental functions and the concepts of operators used in study of engineering systems																						
		4	Construct a mathematical model to describe ELEC/MECH systems and obtain the corresponding first-order ordinary DE																						
		5	Construct a mathematical model to describe ELEC/MECH systems and obtain the corresponding second-order ordinary DE																						
		6	Compute the general structure of solutions to first- and second-order differential equations																						
		7	Apply the methods of undetermined coefficient and variation of parameter to obtain comp. and part. solutions																						
		8	Explain the physical interpretation of the complex exponential and its applications																						
		9	Apply Laplace and Fourier transform knowledge to solve initial value engineering problems																						
		10	Classify a given problem, reframe complex problems into interconnected sub-problems																						
		11	Recognize the eng. knowledge that applies to a given problem and solve to reach substantiated conclusions																						
		12																							
Laboratory experience													Laboratory experience details												
Lab type													Specify the predominant laboratory experience type for this course/learning activity												
Number of labs													Specify the total number laboratory experiences for the course/learning activity												
Laboratory safety taught ?													Are students instructed in safety issues associated with the laboratory space and the specific learning experience?												
Laboratory safety examined ?													Is there verification, testing or checking that students have both received and understood safety issues?												
Required text(s): (required texts only not a reading list)													Author : Title : Publisher : Year												
		1	Cao : APSC 246 System Dynamics Compiled for UBC Okanagan : Pearson : 2015																						
		2																							
		3																							
		4																							

Appendix 6C - Course Information Sheet

Instructions:													To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.												
Course number:													APSC248												
Course title:													Engineering Analysis III												
Calendar web link:													http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC												
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor		Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design											
X		No				DiffCalc																			
Compulsory		Elective group		AU %		100%																			
		AU Total		43		43		0		0		0		0											
CEAB graduate attribute content** (content code):		1 KB		2 PA		3 Inv.		4 Des.		5 Tools		6 Team		7 Comm.		8 Prof.		9 Impacts		10 Ethics		11 Econ.		12 LL	
D																									
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name				First name(s)				CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank										
Course-contact		Cao				Yang				Yes	<2011	>2023	PEng	PhD	Sr Lec										
Other(s)		Klukas				Richard				No	<2011	>2023	PEng	PhD	Assoc										
Course delivery and outcomes:		Acad credit				Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)											
		3.0				Lec Lab/tut		Lec Lab/tut		Lab Tut		% Letter		16-20											
						3.0 1.0		2 6		>50		69-65													
Learning outcome expectation for lecture and/or lab experience																									
Major learning outcomes:		1 Illustrate multivariable functions through level curves and level surfaces																							
		2 Complete partial derivative of functions of multiple variables																							
		3 Construct parametric equations of lines, planes and curves, and find arc length																							
		4 Evaluate double and triple integrals in different coordinate systems																							
		5 Evaluate surface integral and understand the flux through a surface																							
		6 Apply the concepts of gradient, divergence and curl to engineering applications																							
		7 Employ Divergence theorem and Stokes' theorem to simplify certain multiple integrals																							
		8 Apply vectorcalculus to solve practical eng problems in fluid mechanics and EMF																							
		9																							
		10																							
		11																							
		12																							
Laboratory experience																									
Laboratory experience details																									
Lab type		Specify the predominant laboratory experience type for this course/learning activity																							
Number of labs		Specify the total number laboratory experiences for the course/learning activity																							
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																							
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?																							
Author : Title : Publisher : Year																									
Required text(s): (required texts only not a reading list)		1 Hass, Heil, & Weir : Thomas' Calculus: Multivariable, 14th Ed. : Pearson : 2018																							
		2																							
		3																							
		4																							

Validation data

6	10																					
8	85																					
8	85																					
8	85																					
Yes	No																					
	X		M																			
DiffCalc	DiffEq	Discrete	IntCalc	LinAlg	NMeths	Prob	Stats															
Chem	Earth	Life	Phys																			
EngEcon	EnvSus	H&S	HumSS	Impact	OWCorr	PEthics																
0%	100%																					
8	180																					
	I	D	A																			
2	36																					
2	36																					
<2011	2012	2013	2014	2015	2016	2017																
2017	2018	2019	2020	2021	2022	>2023																
PEng	EIT	ing	ingJr	LL	None																	
DPhil	DSc	PhD	MPhil	MSc	MEng	MA	BSc	BEng	BA	Other												
Full	Assoc	Asst	Emer	Adj	Sr Lec	Jr Lec	Sess	Other														
Yes	No																					

0.5	12.0	0	15	<5	5-10	10-20	20-50	>50														
>90	89-85	84-80	79-75	74-70	69-65	64-60	59-55	54-50	49-40	<40												
A+	A	A-	B+	B	C+	C	D+	D	E	F												
0	<1	1-2	3-5	6-10	11-15	16-20	21-30	>30														
0	85																					

0	70	Hands-on
1	12	Simulation
Yes	No	Problem
		Project
		Demo
0	85	Other

Appendix 6C - Course Information Sheet

Instructions:													To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.												
Course number:													APSC252												
Course title:													Thermodynamics and Heat Transfer												
Calendar web link:													http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC												
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor		Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design											
X		No						Phys																	
Compulsory		Elective group		AU %		25%		75%																	
		AU Total		43		0		11		0		32		0											
CEAB graduate attribute content** (content code):		1 KB		2 PA		3 Inv.		4 Des.		5 Tools		6 Team		7 Comm.		8 Prof.		9 Impacts		10 Ethics		11 Econ.		12 LL	
D		D																							
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name				First name(s)				CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank										
Course-contact		Yan				Claire (Yu)				No	<2011	>2023	PEng	PhD	Sr Lec										
Other(s)		Kheirkhah				Sina				No	2017	>2023	None	PhD	Asst										
Course delivery and outcomes:		Acad credit				Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)											
		3.0				Lec Lab/tut		Lec Lab/tut		Lab Tut		% Letter		(%)											
						3.0 1.0		2 6		>50		64-60		21-30											
Learning outcome expectation for lecture and/or lab experience																									
Major learning outcomes:		1 Determine thermodynamic properties of pure substances by using thermodynamic tables																							
		2 Identify "ideal" and real gases; apply the ideal gas law in the solution of typical problems																							
		3 Explain the concept of heat, work, and the mechanisms of energy transfer to and from a system																							
		4 Demonstrate understanding of the concepts of reversible and irreversible processes and entropy generation																							
		5 Apply the first and second laws of thermodynamics																							
Laboratory experience																									
Laboratory experience details																									
Lab type		Specify the predominant laboratory experience type for this course/learning activity																							
Number of labs		Specify the total number laboratory experiences for the course/learning activity																							
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																							
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?																							
Author : Title : Publisher : Year																									
Required text(s): (required texts only not a reading list)		1 Borgnakke & Sonntag : Fundamentals of Thermodynamics : Wiley : 2017																							
		2																							
		3																							
		4																							

Validation data

	6	10												
	8	85												
	8	85												
	8	85												
Yes	No													
	X	M												
DiffCalc	DiffEq	Discret	IntCalc	LinAlg	NMeths	Prob	Stats							
Chem	Earth	Life	Phys											
EngEcol	EnvSus	H&S	HumSS	Impact	OVCorr	PEthics								
0%	100%													
8	180													
	I	D	A											
2	36													
2	36													
<2011	2012	2013	2014	2015	2016	2017								
2017	2018	2019	2020	2021	2022	>2023								
PEng	EIT	ing	ingJr	LL	None									
DPhil	DSc	PhD	MPhil	MSc	MEng	MA	BSc	BEng	BA	Other				
Full	Assoc	Asst	Emer	Adj	Sr Lec	Jr Lec	Sess	Other						
Yes	No													

	0.5	12.0	0	15	<5	5-10	10-20	20-50	>50		
	>90	89-85	84-80	79-75	74-70	69-65	64-60	59-55	54-50	49-40	<40
	A+	A	A-	B+	B	C+	C	D+	D	E	F
0	<1	1-2	3-5	6-10	11-15	16-20	21-30	>30			
0	85										

	0	70	Hands-on
	1	12	Simulation
Yes	No		Problem
			Project
			Demo
	0	85	Other

Appendix 6C - Course Information Sheet

Instructions:													To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.												
Course number:			APSC253																						
Course title:			Fluid Mechanics I																						
Calendar web link:			http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC																						
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design													
X		No																							
Compulsory	Elective group	AU %	49	0		0		0		100%															
		AU Total		0		0		0		49		0													
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL												
		D	D	D																					
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank												
Course-contact		Yan			Claire (Yu)			No	<2011	>2023	PEng	PhD	Sr Lec												
Other(s)																									
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)													
				Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter														
		3.0		3.0	2.0	1	15	10-20	20-50	79-75		6-10													
Learning outcome expectation for lecture and/or lab experience																									
Major learning outcomes:		1	Explain density, viscosity and their roles in fluid flows																						
		2	Measure pressure using barometers and manometers																						
		3	Calculate and measure the hydrostatic force on submerged plane and curved surfaces																						
		4	Calculate buoyancy on floating and submerged bodies																						
		5	Measure the velocity and flow rate using obstructive flow meters																						
		6	Apply the mass, momentum and energy (including Bernoulli) equations in fluid flow problems																						
		7	Analyze laminar and turbulent flows in pipes; calculate and measure the major and minor losses in pipes																						
		8	Calculate forces associated with fluid flow																						
		9	Apply dimensional analysis principles in fluid flow problems																						
		10																							
		11																							
		12																							
Laboratory experience																									
Laboratory experience details																									
Lab type		Hands-on	Specify the predominant laboratory experience type for this course/learning activity																						
Number of labs		5	Specify the total number laboratory experiences for the course/learning activity																						
Laboratory safety taught ?		Yes	Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																						
Laboratory safety examined ?		No	Is there verification, testing or checking that students have both received and understood safety issues?																						
Author : Title : Publisher : Year																									
Required text(s): <i>(required texts only not a reading list)</i>		1	Cengel & Cimbala : Fluid Mechanics: Fundamentals and Applications, 4th Ed. : McGraw Hill : 2017																						
		2																							
		3																							
		4																							

Validation data

6 10
 8 85
 8 85
 8 85

Yes No

X M

DiffCalc DiffEq Discret IntCalc LinAlg NMethods Prob Stats

Chem Earth Life Phys

EngEcol EnvSus H&S HumSS Impact OWCorr PEthics

0% 100%

8 180
 I D A

2 36

2 36

<2011 2012 2013 2014 2015 2016 2017
 2017 2018 2019 2020 2021 2022 >2023

PEng EIT ing ingJr LL None

DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other

Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other

Yes No

0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
 >90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
 A+ A A- B+ B C+ C D+ D E F
 0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30
 0 85

0 70 Hands-on
 1 12 Simulation
 Yes No Problem
 Project
 Demo
 0 85 Other

Appendix 6C - Course Information Sheet

Instructions:													To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.												
Course number:													APSC254												
Course title:													Instrumentation and Data Analysis												
Calendar web link:													http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC												
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor		Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design											
X		No				Prob	Stats					50%													
Compulsory		AU %				50%								50%											
		AU Total		49		25		0		0		25		0											
CEAB graduate attribute content** (content code):		1	2	3	4	5	6	7	8	9	10	11	12												
		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL												
		D	D	D		D	D																		
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name				First name(s)				CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank										
Course-contact		Swart				Nicolas																			
Other(s)																									
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)													
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	%													
				3.0	2.0	2	15	20-50	>50	79-75		1-2													
Major learning outcomes:													Learning outcome expectation for lecture and/or lab experience												
1													Understand the principle of instrumentation and the architecture of measurement systems												
2													Master the techniques for data acquisition and the procedures for calibrating sensors and instruments												
3													Apply modern approaches to handle the uncertainty, reliability, and error issues associated with measurement system												
4													Select and apply fundamental statistical concepts to basic problems in engineering and science												
5													Gain the knowledge of statistical data analysis methods for measurement data												
6													Present data in mathematical and statistical terms												
7													Demonstrate the ability to work effectively and successfully in a diverse team environment												
8																									
9																									
10																									
11																									
12																									
Laboratory experience													Laboratory experience details												
Lab type		Hands-on		Specify the predominant laboratory experience type for this course/learning activity																					
Number of labs		5		Specify the total number laboratory experiences for the course/learning activity																					
Laboratory safety taught ?		Yes		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																					
Laboratory safety examined ?		No		Is there verification, testing or checking that students have both received and understood safety issues?																					
Required text(s): (required texts only not a reading list)													Author : Title : Publisher : Year												
1													Diez et al. : OpenIntro Statistics : openintro.org : 2016												
2													Morris et al. : Measurement and Instrumentation: Elsevier : 2012												
3																									
4																									

Validation data

6	10									
8	85									
8	85									
8	85									
Yes	No									
	X									
	M									
DiffCalc	DiffEq	Discrete	IntCalc	LinAlg	NMeths	Prob	Stats			
Chem	Earth	Life	Phys							
EngEcon	EnvSus	H&S	HumSS	Impact	OWCorr	PEthics				
0%	100%									
8	180									
	I	D	A							
2	36									
2	36									
<2011	2012	2013	2014	2015	2016	2017				
2017	2018	2019	2020	2021	2022	>2023				
PEng	EIT	ing	ingJr	LL	None					
DPhil	DSc	PhD	MPhil	MSc	MEng	MA	BSc	BEng	BA	Other
Full	Assoc	Asst	Emer	Adj	Sr Lec	Jr Lec	Sess	Other		
Yes	No									

0.5	12.0	0	15	<5	5-10	10-20	20-50	>50		
>90	89-85	84-80	79-75	74-70	69-65	64-60	59-55	54-50	49-40	<40
A+	A	A-	B+	B	C+	C	D+	D	E	F
0	<1	1-2	3-5	6-10	11-15	16-20	21-30	>30		
0	85									

0	70	Hands-on
1	12	Simulation
Yes	No	Problem
		Project
		Demo
0	85	Other

Appendix 6C - Course Information Sheet

Instructions:													To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.												
Course number:													APSC255												
Course title:													Electric Circuits and Power												
Calendar web link:													http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC												
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor		Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design											
X		No																							
Compulsory		Elective group		AU %								75%		25%											
		AU Total		49		0		0		0		37		12											
CEAB graduate attribute content** (content code):		1 KB		2 PA		3 Inv.		4 Des.		5 Tools		6 Team		7 Comm.		8 Prof.		9 Impacts		10 Ethics		11 Econ.		12 LL	
D		D		D																					
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name				First name(s)				CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank										
Course-contact		Elnaggar				Ayman				No	2014	>2023	PEng	PhD	Jr Lec										
Other(s)		Foulds				Ian				No	2014	>2023	PEng	PhD	Asst										
Course delivery and outcomes:		Acad credit				Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)											
		3.0				Lec Lab/tut		Lec Lab/tut		Lab Tut		% Letter		6-10											
						3.0 2.0		2 15		20-50 >50		74-70													
Learning outcome expectation for lecture and/or lab experience																									
Major learning outcomes:		1 Understand and perform DC circuit analysis																							
		2 Understand and perform AC circuit analysis																							
		3 Analyze AC power using phasors																							
		4 Understand three-phase systems																							
		5 Analyze power of three-phase systems																							
		6																							
		7																							
		8																							
		9																							
		10																							
		11																							
		12																							
Laboratory experience																									
Laboratory experience details																									
Lab type		Hands-on		Specify the predominant laboratory experience type for this course/learning activity																					
Number of labs		5		Specify the total number laboratory experiences for the course/learning activity																					
Laboratory safety taught ?		Yes		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																					
Laboratory safety examined ?		No		Is there verification, testing or checking that students have both received and understood safety issues?																					
Author : Title : Publisher : Year																									
Required text(s): (required texts only not a reading list)		1 Alexander & Sadiku : Fundamentals of Electric Circuits 5th Ed. : Pearson : 2013																							
		2																							
		3																							
		4																							

Appendix 6C - Course Information Sheet

Instructions:													To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.												
Course number:													APSC259												
Course title:													Materials Science I												
Calendar web link:													http://www.calendar.ubc.ca/okanagan/courses.cfm?go=name&code=APSC												
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design													
X		No				Chem																			
Compulsory	Elective group	AU %				50%				50%															
		AU Total	43	0		22		0		22		0													
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL												
		D		D																					
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank												
Course-contact		Bichler																							
Other(s)		Tiznobaik																							
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)													
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)													
				3.0	1.0	2	10	20-50		79-75		1-2													
Learning outcome expectation for lecture and/or lab experience																									
Major learning outcomes:		1	Compare struture and properties for metals, polymers, and ceramics																						
		2	Describe fundamental properties of materials, degradation and failure																						
		3	Relate four materials tetrahedral elements (processing, structure, properties and performance) with each other																						
		4	Analyze phase equilibria on eutectic phase diagrams																						
		5																							
		6																							
		7																							
		8																							
		9																							
		10																							
		11																							
		12																							
Laboratory experience																									
Laboratory experience details																									
Lab type		Hands-on	Specify the predominant laboratory experience type for this course/learning activity																						
Number of labs		4	Specify the total number laboratory experiences for the course/learning activity																						
Laboratory safety taught ?		Yes	Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																						
Laboratory safety examined ?		Yes	Is there verification, testing or checking that students have both received and understood safety issues?																						
Author : Title : Publisher : Year																									
Required text(s): (required texts only not a reading list)		1	Callister & Rethwisch : Materials Science and Engineering An Introduction : Wiley : 2013																						
		2																							
		3																							
		4																							

Appendix 6C - Course Information Sheet

Instructions:													
To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:		APSC260											
Course title:		Mechanics of Materials I											
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=APSC											
* Notes:													
* Provide explanatory notes on inconsistencies with calendar information (if applicable)													
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X		No											
Compulsory	Elective group	AU %								75%		25%	
		AU Total	43	0		0		0		32		11	
CEAB graduate attribute content** (content code):		1	2	3	4	5	6	7	8	9	10	11	12
		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL
		D	D										
** Enter content level codes													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors		Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank
Course-contact		Liu			Jian			No	2017	>2023	EIT	PhD	Asst
Other(s)													
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)	
				Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter		
		3.0		3.0	1.0	2	9		20-50	69-65		6-10	
Major learning outcomes:		Learning outcome expectation for lecture and/or lab experience											
		1	Calculate the forces and reactions in structural members using principles of static equilibrium										
		2	Use Hooke's law to solve statically determinate and statically indeterminate systems										
		3	Use Mohr's circle to transform general stress states and identify principal stresses										
		4	Calculate the stresses and strains in thin-walled pressure vessels										
		5	Calculate the stresses and deformations in prismatic beams under symmetric, eccentric, and asymmetric bending										
		6	Derive equations for bending moment, shear force, and deflection for statically determinate prismatic beams										
		7	Use the principle of superposition to calculate deflection for statically determinate prismatic beams										
		8	Calculate the stresses and deflections of circular shafts subjected to torsion										
		9											
		10											
		11											
12													
Laboratory experience													
Laboratory experience details													
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Required text(s): (required texts only not a reading list)		Author : Title : Publisher : Year											
		1	Beer, Johnston, DeWolf, & Mazurek : Mechanics of Materials : McGraw-Hill : 2014										
		2											
		3											
		4											

Appendix 6C - Course Information Sheet

Instructions:													To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.												
Course number:													ENGR305												
Course title:													Engineering Economic Analysis												
Calendar web link:													http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=ENGR												
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor		Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design											
X		No								EngEcon															
Compulsory		Elective group		AU %						100%															
		AU Total		37		0		0		37		0		0											
CEAB graduate attribute content** (content code):		1 KB		2 PA		3 Inv.		4 Des.		5 Tools		6 Team		7 Comm.		8 Prof.		9 Impacts		10 Ethics		11 Econ.		12 LL	
		A										D								D					
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors			Family name				First name(s)				CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank									
Course-contact			Brereton				John Alan				No	2017	2018	PEng	PhD	Jr Lec									
Other(s)																									
Course delivery and outcomes:			Acad credit			Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)											
						Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter												
			3.0			3.0		2				74-70		6-10											
Learning outcome expectation for lecture and/or lab experience																									
Major learning outcomes:			1 Undertake decision-making for engineering projects, taking account of qualitative considerations and multiple criteria																						
			2 Evaluate the suitability of an engineering project and select between alternative projects using several possible approaches																						
			3 Understand and be able to determine if and when an asset should be replaced under a range of circumstances																						
			4 Describe key features of businesses: types, governance and org. structures, & approaches to planning, financial analyses etc.																						
			5 Understand the time value of money and perform a cash flow analysis for a range of circumstances																						
			6 Explain the key features of public sector projects and do a social benefit-cost analysis (SCBA) of such projects																						
			7 Model the depreciation of an asset																						
			8 Calculate the effects of taxation and inflation on a project																						
			9 Analyse the effects of uncertainty and risk in engineering projects																						
			10 Demonstrate ethical behaviour including adherence to UBC policies, Course Syllabus, and APEGBC Code of Ethics																						
			11																						
			12																						
Laboratory experience																									
Laboratory experience details																									
Lab type			Specify the predominant laboratory experience type for this course/learning activity																						
Number of labs			Specify the total number laboratory experiences for the course/learning activity																						
Laboratory safety taught ?			Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																						
Laboratory safety examined ?			Is there verification, testing or checking that students have both received and understood safety issues?																						
Author : Title : Publisher : Year																									
Required text(s): (required texts only not a reading list)			1																						
			2																						
			3																						
			4																						

Validation data

6 10
8 85
8 85
8 85
Yes No
X M
DiffCalc DiffEq Discrete IntCalc LinAlg NMeths Prob Stats
Chem Earth Life Phys
EngEcoi EnvSus H&S HumSS Impact:OWCorr PEthics
0% 100%
8 180
I D A
2 36
2 36
<2011 2012 2013 2014 2015 2016 2017
2017 2018 2019 2020 2021 2022 >2023
PEng EIT ing ingJr LL None
DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
Yes No

0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
>90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
A+ A A- B+ B C+ C D+ D E F
0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30
0 85

0 70 Hands-on
1 12 Simulation
Yes No Problem
Project
Demo
0 85 Other

Appendix 6C - Course Information Sheet

Instructions:														
To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.														
Course number:		ENGR320												
Course title:		Electromechanical Devices												
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=ENGR												
* Notes:														
* Provide explanatory notes on inconsistencies with calendar information (if applicable)														
CEAB course type	K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design			
X	No													
Compulsory	Elective group		AU %							75%		25%		
		AU Total	49		0		0		0		37		12	
CEAB graduate attribute content** (content code):	1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL		
	D	D		D										
** Enter content level codes														
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)														
First row : Please list the most appropriate instructor to act as course contact														
Instructors	Family name		First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank			
Course-contact	Eberle		Wilson			No	<2011	>2023	PEng	PhD	Assoc			
Other(s)														
Course delivery and outcomes:		Acad credit	Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)			
		3.0	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	1-2			
			3.0	2.0	1	8	20-50	>50	79-75					
Major learning outcomes:	Learning outcome expectation for lecture and/or lab experience													
	1	Solve magnetic circuit problems												
	2	Identify the loss mechanisms and material and magnetic properties in magnetic circuits												
	3	Solve transformer circuit problems												
	4	Solve DC machine problems												
	5	Solve synchronous machine problems												
	6	Solve induction machine problems												
	7	Design and build a simple electric motor												
	8													
	9													
	10													
	11													
12														
Laboratory experience						Laboratory experience details								
Lab type		Hands-on	Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		5	Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Yes	Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Yes	Is there verification, testing or checking that students have both received and understood safety issues?											
Author : Title : Publisher : Year														
Required text(s): (required texts only not a reading list)		1												
		2												
		3												
		4												

Appendix 6C - Course Information Sheet

Instructions:													To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.												
Course number:													ENGR376												
Course title:													Materials Science II												
Calendar web link:													http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=ENGR												
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor		Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design											
X		No						Phys Chem																	
Compulsory		Elective group		AU %		25%						75%													
		AU Total		37		0		9		0		28		0											
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL	D											
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name				First name(s)				CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank										
Course-contact		Taheri				Ray				No	<2011	>2023	PEng	PhD	Sr Lec										
Other(s)																									
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)													
		3.0		3.0		2				74-70		3-5													
Learning outcome expectation for lecture and/or lab experience																									
Major learning outcomes:		1 Apply principles of diffusion phenomena in solid state to solve materials science and engineering problems 2 Extract required information from C-Fe phase diagram in order to identify characterizations of engineering alloys 3 Design heat treatment cycles to accomplish certain mechanical/physical properties 4 Conduct a thorough literature review on selected topics in area of materials science and engineering 5 Understand fundamentals of Continuous-Cooling-Transformation (CCT) and Time-Temperature-Transformation (TTT) diagrams 6 Disseminate knowledge on a specific topic by presenting to peers 7 8 9 10 11 12																							
Laboratory experience											Laboratory experience details														
Lab type		Specify the predominant laboratory experience type for this course/learning activity																							
Number of labs		Specify the total number laboratory experiences for the course/learning activity																							
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																							
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?																							
Author : Title : Publisher : Year																									
Required text(s): (required texts only not a reading list)		1 Callister & Rethwisch : Materials Science and Engineering An Introduction : Wiley : 2013 2 3 4																							

Appendix 6C - Course Information Sheet

Instructions:													
To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:		ENGR381											
Course title:		Kinematics and Dynamics of Machinery											
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=ENGR											
* Notes:													
* Provide explanatory notes on inconsistencies with calendar information (if applicable)													
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X		No											
Compulsory	Elective group	AU %								60%		40%	
		AU Total	43	0		0		0		26		17	
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
			A		A	A		A					A
** Enter content level codes													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors	Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	
Course-contact	Seethaler			Rudolf			Yes	<2011	>2023	PEng	PhD	Assoc	
Other(s)													
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)	
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	6-10	
				3.0	1.0	1	3		20-50	74-70			
Learning outcome expectation for lecture and/or lab experience													
Major learning outcomes:	1	Analyze the dynamic behavior of mechanisms and machinery											
	2	Design mechanisms to solve open-ended engineering problems											
	3	Use Solid Works to study the dynamic behavior of mechanisms and machinery and validate results											
	4	Create a concise engineering report											
	5	Independently study the state of the art of existing solutions to engineering problems											
	6												
	7												
	8												
	9												
	10												
	11												
	12												
Laboratory experience													
Laboratory experience details													
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Author : Title : Publisher : Year													
Required text(s): (required texts only not a reading list)	1	Norton : Design of Machinery, 5th Ed. : McGrawHill											
	2												
	3												
	4												

Appendix 6C - Course Information Sheet

Instructions: To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:	ENGR387												
Course title:	Vibration of Mechanical Systems												
Calendar web link:	http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=ENGR												
* Notes:													
* Provide explanatory notes on inconsistencies with calendar information (if applicable)													
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X		No		DiffCalc	DiffEq	Phys							
Compulsory	Elective group	AU %		30%		30%				40%			
		AU Total		43		13		13		0		17	
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
A				A		A							
** Enter content level codes													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors	Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	
Course-contact	Mohammadi			Hadi			No	2013	>2023	PEng	PhD	Asst	
Other(s)													
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)	
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter		
				3.0	1.0	1			5-10	69-65		1-2	
Learning outcome expectation for lecture and/or lab experience													
Major learning outcomes:	1	Effect of mechanical vibrations in the design and mechanical systems											
	2	Adapt and apply a general iterative design process to open-ended complex problems such as Automobile Suspension System											
	3	Specify design requirements based on needs and constraints											
	4	Produce alternative solutions to open-ended problem and select final solution based on optimization process											
	5	Demonstrate ability to use SolidWorks or other CAD software and create engineering design											
	6	Recognize a variety of working and learning preferences and world-views; Appreciate the value of diversity on a team											
	7	Communicate effectively and constructively with other team members											
	8												
	9												
	10												
	11												
	12												
Laboratory experience						Laboratory experience details							
Lab type			Specify the predominant laboratory experience type for this course/learning activity										
Number of labs			Specify the total number laboratory experiences for the course/learning activity										
Laboratory safety taught ?			Are students instructed in safety issues associated with the laboratory space and the specific learning experience?										
Laboratory safety examined ?			Is there verification, testing or checking that students have both received and understood safety issues?										
Author : Title : Publisher : Year													
Required text(s): <i>(required texts only not a reading list)</i>	1	Inman : Engineering Vibration : Pearson : 2013											
	2												
	3												
	4												

Validation data

6	10									
8	85									
8	85									
8	85									
Yes	No									
		X	M							
DiffCalc	DiffEq	Discrete	IntCalc	LinAlg	NMeths	Prob	Stats			
Chem	Earth	Life	Phys							
EngEcon	EnvSus	H&S	HumSS	Impact:	OWCorr	PEthics				
0%	100%									
8	180	I	D	A						
2	36									
2	36									
<2011	2012	2013	2014	2015	2016	2017				
2017	2018	2019	2020	2021	2022	>2023				
PEng	EIT	ing	ingJr	LL	None					
DPhil	DSc	PhD	MPhil	MSc	MEng	MA	BSc	BEng	BA	Other
Full	Assoc	Asst	Emer	Adj	Sr Lec	Jr Lec	Sess	Other		
Yes	No									

0.5	12.0	0	15	<5	5-10	10-20	20-50	>50		
>90	89-85	84-80	79-75	74-70	69-65	64-60	59-55	54-50	49-40	<40
A+	A	A-	B+	B	C+	C	D+	D	E	F
0	<1	1-2	3-5	6-10	11-15	16-20	21-30	>30		
0	85									

0	70	Hands-on
1	12	Simulation
Yes	No	Problem
		Project
		Demo
0	85	Other

Appendix 6C - Course Information Sheet														
Instructions: To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.														
Course number:		ENGR413												
Course title:		Law and Ethics for Engineers												
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=ENGR												
* Notes:														
** Provide explanatory notes on inconsistencies with calendar information (if applicable)														
CEAB course type		K-factor	Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design	
X		No												
Compulsory	Elective group	AU %	100%											
		AU Total	37	0		0		37		0		0		
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL	
** Enter content level codes														
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)														
First row : Please list the most appropriate instructor to act as course contact														
Instructors	Family name		First name(s)		CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank				
Course-contact	Swart		Nicholas		No	<2011		None	PhD	Adj				
Other(s)														
	Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate	
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	0		
				3.0		1				89-85				
Learning outcome expectation for lecture and/or lab experience														
Major learning outcomes:	1 Apply ethical theories to real-world case studies													
	2 Evaluate the fundamental ethical considerations associated with professional engineering practice													
	3 Evaluate the role of the professional engineer in society													
	4 Evaluate legal principles associated with contracts, employment, intellectual property and business structures													
	5 Analyze the social and environmental aspects of engineering													
	6 Understand the relevance and utility of law as it pertains to engineering													
	7													
	8													
	9													
	10													
	11													
	12													
Laboratory experience		Laboratory experience details												
Lab type		Specify the predominant laboratory experience type for this course/learning activity												
Number of labs		Specify the total number laboratory experiences for the course/learning activity												
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?												
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?												
Author : Title : Publisher : Year														
Required text(s): (required texts only not a reading list)	1 Andrews : Canadian Prof. Eng. and Geoscience : Nelson : 2014													
	2 Samuels : Practical Law and Architecture, Eng. And Geoscience : Pearson : 2016													
	3													
	4													

Validation data

6 10
8 85
8 85
8 85
Yes No
X M
DiffCalc DiffEq Discret IntCalc LinAlg NMeths Prob Stats
Chem Earth Life Phys
EngEco EnvSus H&S HumSS Impact: OWCon PEthics

0% 100%
8 180
I D A
2 36
2 36
<2011 2012 2013 2014 2015 2016 2017
2017 2018 2019 2020 2021 2022 >2023
PEng EIT ing ingJr LL None
DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
Yes No

0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
>90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
A+ A A- B+ B C+ C D+ D E F
0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30
0 85

0 70 Hands-on
1 12 Simulation
Yes No Problem
Project
Demo
0 85 Other

Appendix 6C - Course Information Sheet

Instructions: To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:		ENGR439											
Course title:		Manufacturing Processes II											
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=MANF											
* Notes:		Provide explanatory notes on inconsistencies with calendar information (if applicable)											
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X										80%		20%	
Compulsory		Elective group	AU %	0		0		0		34		9	
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
** Enter content level codes for													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors		Family name		First name(s)		CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank		
Course-contact													
Other(s)													
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate	
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	%	
				3.0	1.0								
Major learning outcomes:		Learning outcome expectation for lecture and/or lab experience											
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
Laboratory experience		Laboratory experience details											
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Required text(s): (required texts only not a reading list)		Author : Title : Publisher : Year											
1													
2													
3													
4													

Validation data

6 10
 8 85
 8 85
 8 85
 Yes No
 X M
 DiffCalc DiffEq Discret! IntCalc LinAlg NMeths Prob Stats
 Chem Earth Life Phys
 EngEco EnvSus H&S HumSS Impact: OWCon PEthics
 0% 100%
 8 180
 I D A
 2 36
 2 36
 <2011 2012 2013 2014 2015 2016 2017
 2017 2018 2019 2020 2021 2022 >2023
 PEng EIT ing ingJr LL None
 DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
 Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
 Yes No
 0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
 >90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
 A+ A A- B+ B C+ C D+ D E F
 0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30
 0 85
 0 70 Hands-on
 1 12 Simulation
 Yes No Problem
 Project
 Demo
 0 85 Other

Appendix 6C - Course Information Sheet

Instructions: To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.																												
Course number:		ENGR476																										
Course title:		Mechanics of Materials II																										
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=ENGR																										
* Notes:		Provide explanatory notes on inconsistencies with calendar information (if applicable)																										
CEAB course type		K-factor		Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design														
X		No										70%		30%														
Compulsory		Elective group		AU %		0		0		0		26		11														
CEAB graduate attribute content** (content code):		1 KB		2 PA		3 Inv.		4 Des.		5 Tools		6 Team		7 Comm.		8 Prof.		9 Impacts		10 Ethics		11 Econ.		12 LL				
** Enter content level codes		Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																										
First row : Please list the most appropriate instructor to act as course contact																												
Instructors		Family name				First name(s)				CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank													
Course-contact																												
Other(s)																												
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)																
		3.0		3.0		1		Lab		Tut		79-75		1-2														
Major learning outcomes:		Learning outcome expectation for lecture and/or lab experience																										
1		Understand the scientific and engineering principles that govern the mechanics of materials																										
2		Identify and solve problems related to structural behavior of materials under various loading conditions																										
3		Formulate design parameters, evaluate concepts, establish specifications for a mechanical component design																										
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												
Laboratory experience		Laboratory experience details																										
Lab type		Specify the predominant laboratory experience type for this course/learning activity																										
Number of labs		Specify the total number laboratory experiences for the course/learning activity																										
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																										
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?																										
Required text(s): (required texts only not a reading list)		Author : Title : Publisher : Year																										
1		Beer et al. : Mechanics of Materials, 6th Ed. : McGraw-Hill : 2012																										
2																												
3																												
4																												

Validation data

6	10																								
8	85																								
8	85																								
8	85																								
Yes	No																								
	X																								
	M																								
DiffCalc	DiffEq	Discret	IntCalc	LinAlg	NMeths	Prob	Stats																		
Chem	Earth	Life	Phys																						
EngEco	EnvSus	H&S	HumSS	Impact:	OWCorr	PEthics																			
0%	100%																								
8	180																								
	I	D		A																					
2	36																								
2	36																								
<2011	2012	2013	2014	2015	2016	2017																			
2017	2018	2019	2020	2021	2022	>2023																			
PEng	EIT	ing	ingJr	LL	None																				
DPhil	DSc	PhD	MPhil	MSc	MEng	MA	BSc	BEng	BA	Other															
Full	Assoc	Asst	Emer	Adj	Sr Lec	Jr Lec	Sess	Other																	
Yes	No																								
0.5	12.0	0	15	<5	5-10	10-20	20-50	>50																	
>90	89-85	84-80	79-75	74-70	69-65	64-60	59-55	54-50	49-40	<40															
A+	A	A-	B+	B	C+	C	D+	D	E	F															
0	<1	1-2	3-5	6-10	11-15	16-20	21-30	>30																	
0	85																								
0	70	Hands-on																							
1	12	Simulation																							
Yes	No	Problem																							
		Project																							
		Demo																							
0	85	Other																							

Appendix 6C - Course Information Sheet

Instructions: To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.																									
Course number:		MANF230																							
Course title:		Manufacturing Engineering Laboratory																							
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=MANF																							
* Notes:		Provide explanatory notes on inconsistencies with calendar information (if applicable)																							
CEAB course type		K-factor		Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design											
X		No										75%		25%											
Compulsory		Elective group		AU %		0		0		0		35		12											
CEAB graduate attribute content** (content code):		1 KB		2 PA		3 Inv.		4 Des.		5 Tools		6 Team		7 Comm.		8 Prof.		9 Impacts		10 Ethics		11 Econ.		12 LL	
** Enter content level codes for																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name				First name(s)				CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank										
Course-contact		Iqbal				Hassan																			
Other(s)																									
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate													
		4.0		Lec Lab/tut		Lec Lab/tut		Lab Tut		% Letter		%													
Learning outcome expectation for lecture and/or lab experience																									
Major learning outcomes:		1																							
		2																							
		3																							
		4																							
		5																							
		6																							
		7																							
		8																							
		9																							
		10																							
		11																							
		12																							
Laboratory experience												Laboratory experience details													
Lab type		Specify the predominant laboratory experience type for this course/learning activity																							
Number of labs		Specify the total number laboratory experiences for the course/learning activity																							
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																							
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?																							
Required text(s): (required texts only not a reading list)		Author : Title : Publisher : Year																							
		1																							
		2																							
		3																							
		4																							

Validation data

6 10
 8 85
 8 85
 8 85
 Yes No
 X M
 DiffCalc DiffEq Discret! IntCalc LinAlg NMeths Prob Stats
 Chem Earth Life Phys
 EngEco EnvSus H&S HumSS Impact: OWCon PEthics
 0% 100%
 8 180
 I D A
 2 36
 2 36
 <2011 2012 2013 2014 2015 2016 2017
 2017 2018 2019 2020 2021 2022 >2023
 PEng EIT ing ingJr LL None
 DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
 Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
 Yes No
 0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
 >90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
 A+ A A- B+ B C+ C D+ D E F
 0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30
 0 85
 0 70 Hands-on
 1 12 Simulation
 Yes No Problem
 Project
 Demo
 0 85 Other

Appendix 6C - Course Information Sheet

Instructions: To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:		MANF270											
Course title:		Production Systems Management I											
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=MANF											
* Notes:		Provide explanatory notes on inconsistencies with calendar information (if applicable)											
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X													
Compulsory	Elective group	AU %		30%		50%		20%					
		AU Total	37	0		0		11		19		7	
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
** Enter content level codes for													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors	Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	
Course-contact	Iqbal			Hassan									
Other(s)													
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate	
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	%	
Learning outcome expectation for lecture and/or lab experience													
Major learning outcomes:	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												
	12												
Laboratory experience						Laboratory experience details							
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Required text(s): (required texts only not a reading list)		Author : Title : Publisher : Year											
		1											
		2											
		3											
		4											

Validation data

6 10
 8 85
 8 85
 8 85
 Yes No
 X M
 DiffCalc DiffEq Discret! IntCalc LinAlg NMeths Prob Stats
 Chem Earth Life Phys
 EngEco EnvSus H&S HumSS Impact: OWCon PEthics
 0% 100%
 8 180
 I D A
 2 36
 2 36
 <2011 2012 2013 2014 2015 2016 2017
 2017 2018 2019 2020 2021 2022 >2023
 PEng EIT ing ingJr LL None
 DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
 Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
 Yes No
 0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
 >90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
 A+ A A- B+ B C+ C D+ D E F
 0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30
 0 85
 0 70 Hands-on
 1 12 Simulation
 Yes No Problem
 Project
 Demo
 0 85 Other

Appendix 6C - Course Information Sheet

Instructions: To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.															
Course number:		MANF330													
Course title:		Manufacturing Engineering Project I													
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=MANF													
* Notes:		Provide explanatory notes on inconsistencies with calendar information (if applicable)													
CEAB course type		K-factor	Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design		
X											25%		75%		
Compulsory		Elective group	AU %	74		0		0		0		19		56	
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL		
** Enter content level codes for															
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)															
First row : Please list the most appropriate instructor to act as course contact															
Instructors		Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank		
Course-contact		Iqbal			Hassan										
Other(s)															
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate			
		6.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	%			
				1.0	4.0										
Major learning outcomes: Learning outcome expectation for lecture and/or lab experience															
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
Laboratory experience															
Laboratory experience details															
Lab type		Specify the predominant laboratory experience type for this course/learning activity													
Number of labs		Specify the total number laboratory experiences for the course/learning activity													
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?													
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?													
Required text(s): (required texts only not a reading list)		Author : Title : Publisher : Year													
1															
2															
3															
4															

Validation data

6 10
 8 85
 8 85
 8 85
 Yes No
 X M
 DiffCalc DiffEq Discret IntCalc LinAlg NMeths Prob Stats
 Chem Earth Life Phys
 EngEco EnvSus H&S HumSS Impact: OWCon PEthics
 0% 100%
 8 180
 I D A
 2 36
 2 36
 <2011 2012 2013 2014 2015 2016 2017
 2017 2018 2019 2020 2021 2022 >2023
 PEng EIT ing ingJr LL None
 DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
 Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
 Yes No
 0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
 >90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
 A+ A A- B+ B C+ C D+ D E F
 0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30
 0 85
 0 70 Hands-on
 1 12 Simulation
 Yes No Problem
 Project
 Demo
 0 85 Other

Appendix 6C - Course Information Sheet

Instructions: To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:	MANF368												
Course title:	Engineering Measurements and Instrumentation												
Calendar web link:	http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=MANF												
* Notes:	Provide explanatory notes on inconsistencies with calendar information (if applicable)												
CEAB course type	K-factor	Content category & elements	Math		Natural science			Complementary studies		Engineering science		Engineering design	
X													
Compulsory	Elective group	AU %	15%		70%			15%					
		AU Total	43		0			6		30		6	
CEAB graduate attribute content** (content code):	1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL	
** Enter content level codes for													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors	Family name	First name(s)		CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank				
Course-contact	Richert	Dean											
Other(s)													
Course delivery and outcomes:	Acad credit	Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate			
	3.0	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	%			
		3.0	1.0										
Major learning outcomes:	Learning outcome expectation for lecture and/or lab experience												
	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												
	12												
Laboratory experience		Laboratory experience details											
Lab type	Specify the predominant laboratory experience type for this course/learning activity												
Number of labs	Specify the total number laboratory experiences for the course/learning activity												
Laboratory safety taught ?	Are students instructed in safety issues associated with the laboratory space and the specific learning experience?												
Laboratory safety examined ?	Is there verification, testing or checking that students have both received and understood safety issues?												
Required text(s): (required texts only not a reading list)	Author : Title : Publisher : Year												
	1												
	2												
	3												
	4												

Validation data

6	10													
8	85													
8	85													
8	85													
Yes	No	X	M											
DiffCalc	DiffEq	Discret	IntCalc	LinAlg	NMeths	Prob	Stats							
Chem	Earth	Life	Phys											
EngEco	EnvSus	H&S	HumSS	Impact	OWCorr	PEthics								
0%	100%													
8	180													
	I	D	A											
2	36													
2	36													
<2011	2012	2013	2014	2015	2016	2017								
2017	2018	2019	2020	2021	2022	>2023								
PEng	EIT	ing	ingJr	LL	None									
DPhil	DSc	PhD	MPhil	MSc	MEng	MA	BSc	BEng	BA	Other				
Full	Assoc	Asst	Emer	Adj	Sr Lec	Jr Lec	Sess	Other						
Yes	No													
0.5	12.0	0	15	<5	5-10	10-20	20-50	>50						
>90	89-85	84-80	79-75	74-70	69-65	64-60	59-55	54-50	49-40	<40				
A+	A	A-	B+	B	C+	C	D+	D	E	F				
0	<1	1-2	3-5	6-10	11-15	16-20	21-30	>30						
0	85													
0	70	Hands-on												
1	12	Simulation												
Yes	No	Problem												
		Project												
		Demo												
0	85	Other												

Appendix 6C - Course Information Sheet

Instructions: To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:		MANF370											
Course title:		Production Systems Management II											
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=MANF											
* Notes:		Provide explanatory notes on inconsistencies with calendar information (if applicable)											
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X													
Compulsory	Elective group	AU %						50%		50%			
		AU Total	37	0		0		19		19		0	
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
** Enter content level codes for													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors	Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	
Course-contact	Tosarkani												
Other(s)													
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate	
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)	
Learning outcome expectation for lecture and/or lab experience													
Major learning outcomes:	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												
	12												
Laboratory experience													
Laboratory experience details													
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Required text(s): (required texts only not a reading list)		Author : Title : Publisher : Year											
		1											
		2											
		3											
		4											

Validation data

6 10
8 85
8 85
8 85
Yes No
X M
DiffCalc DiffEq Discret! IntCalc LinAlg NMeths Prob Stats
Chem Earth Life Phys
EngEco EnvSus H&S HumSS Impact: OWCon PEthics
0% 100%
8 180
I D A
2 36
2 36
<2011 2012 2013 2014 2015 2016 2017
2017 2018 2019 2020 2021 2022 >2023
PEng EIT ing ingJr LL None
DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
Yes No
0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
>90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
A+ A A- B+ B C+ C D+ D E F
0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30
0 85
0 70 Hands-on
1 12 Simulation
Yes No Problem
Project
Demo
0 85 Other

Appendix 6C - Course Information Sheet

Instructions:													
To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:		MANF386											
Course title:		Industrial Automation											
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=MANF											
* Notes:													
** Provide explanatory notes on inconsistencies with calendar information (if applicable)													
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X													
Compulsory	Elective group	AU %								100%			
		AU Total	50	0	0	0	0	0	0	50	0	0	0
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
** Enter content level codes for													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors	Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	
Course-contact	Richert			Dean									
Other(s)													
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate	
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	%	
Learning outcome expectation for lecture and/or lab experience													
Major learning outcomes:	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												
	12												
Laboratory experience				Laboratory experience details									
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Author : Title : Publisher : Year													
Required text(s): (required texts only not a reading list)		1											
		2											
		3											
		4											

Validation data

6 10
8 85
8 85
8 85
Yes No
X M
DiffCalc DiffEq Discret! IntCalc LinAlg NMeths Prob Stats
Chem Earth Life Phys
EngEco EnvSus H&S HumSS Impact: OWCorr PEthics
0% 100%
8 180
I D A
2 36
2 36
<2011 2012 2013 2014 2015 2016 2017
2017 2018 2019 2020 2021 2022 >2023
PEng EIT ing ingJr LL None
DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
Yes No
0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
>90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
A+ A A- B+ B C+ C D+ D E F
0 <-1 1-2 3-5 6-10 11-15 16-20 21-30 >30
0 85
0 70 Hands-on
1 12 Simulation
Yes No Problem
Project
Demo
0 85 Other

Appendix 6C - Course Information Sheet

Instructions:													
To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:		MANF430											
Course title:		Manufacturing Capstone Design Project											
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=MANF											
* Notes:		Provide explanatory notes on inconsistencies with calendar information (if applicable)											
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X													
Compulsory	Elective group	AU %											100%
		AU Total	72	0		0		0		0		72	
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
** Enter content level codes for													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors		Family name		First name(s)		CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank		
Course-contact													
Other(s)													
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate	
		6.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)	
				1.0	4.0								
Learning outcome expectation for lecture and/or lab experience													
Major learning outcomes:		1											
		2											
		3											
		4											
		5											
		6											
		7											
		8											
		9											
		10											
		11											
		12											
Laboratory experience													
Laboratory experience details													
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Required text(s): (required texts only not a reading list)		Author : Title : Publisher : Year											
		1											
		2											
		3											
		4											

Validation data

6 10
 8 85
 8 85
 8 85
 Yes No
 X M
 DiffCalc DiffEq Discret! IntCalc LinAlg NMeths Prob Stats
 Chem Earth Life Phys
 EngEco EnvSus H&S HumSS Impact: OWCon PEthics
 0% 100%
 8 180
 I D A
 2 36
 2 36
 <2011 2012 2013 2014 2015 2016 2017
 2017 2018 2019 2020 2021 2022 >2023
 PEng EIT ing ingJr LL None
 DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
 Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
 Yes No
 0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
 >90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
 A+ A A- B+ B C+ C D+ D E F
 0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30
 0 85
 0 70 Hands-on
 1 12 Simulation
 Yes No Problem
 Project
 Demo
 0 85 Other

Appendix 6C - Course Information Sheet

Instructions:													
To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:		MANF450											
Course title:		Life Cycle Analysis and Sustainability											
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=MANF											
* Notes:		Provide explanatory notes on inconsistencies with calendar information (if applicable)											
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X													
Compulsory	Elective group	AU %						40%		30%		30%	
AU Total		37	0		0		15		11		11		
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
** Enter content level codes for													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors		Family name		First name(s)		CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank		
Course-contact		toskarani											
Other(s)													
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate	
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	%	
Learning outcome expectation for lecture and/or lab experience													
Major learning outcomes:		1											
		2											
		3											
		4											
		5											
		6											
		7											
		8											
		9											
		10											
		11											
		12											
Laboratory experience													
Laboratory experience details													
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Required text(s): (required texts only not a reading list)		Author : Title : Publisher : Year											
		1											
		2											
		3											
		4											

Validation data

6 10
 8 85
 8 85
 8 85
 Yes No
 X M
 DiffCalc DiffEq Discret! IntCalc LinAlg NMeths Prob Stats
 Chem Earth Life Phys
 EngEco EnvSus H&S HumSS Impact: OWCon PEthics
 0% 100%
 8 180
 I D A
 2 36
 2 36
 <2011 2012 2013 2014 2015 2016 2017
 2017 2018 2019 2020 2021 2022 >2023
 PEng EIT ing ingJr LL None
 DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
 Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
 Yes No
 0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
 >90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
 A+ A A- B+ B C+ C D+ D E F
 0 <-1 1-2 3-5 6-10 11-15 16-20 21-30 >30
 0 85
 0 70 Hands-on
 1 12 Simulation
 Yes No Problem
 Project
 Demo
 0 85 Other

Appendix 6C - Course Information Sheet

Instructions: To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:		MANF455											
Course title:		Factory Planning											
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=MANF											
* Notes:		Provide explanatory notes on inconsistencies with calendar information (if applicable)											
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X													
Compulsory	Elective group	AU %								20%		80%	
		AU Total	37	0		0		0		7		30	
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
** Enter content level codes for													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors	Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	
Course-contact													
Other(s)													
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate	
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)	
				2.0	2.0								
Learning outcome expectation for lecture and/or lab experience													
Major learning outcomes:	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												
	12												
Laboratory experience						Laboratory experience details							
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Required text(s): (required texts only not a reading list)		Author : Title : Publisher : Year											
		1											
		2											
		3											
		4											

Validation data

6 10
 8 85
 8 85
 8 85
 Yes No
 X M
 DiffCalc DiffEq Discret! IntCalc LinAlg NMeths Prob Stats
 Chem Earth Life Phys
 EngEco EnvSus H&S HumSS Impact: OWCorr PEthics
 0% 100%
 8 180
 I D A
 2 36
 2 36
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 2017 2018 2019 2020 2021 2022 >2023
 PEng EIT ing ingJr LL None
 DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
 Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
 Yes No
 0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
 >90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
 A+ A A- B+ B C+ C D+ D E F
 0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30
 0 85
 0 70 Hands-on
 1 12 Simulation
 Yes No Problem
 Project
 Demo
 0 85 Other

Appendix 6C - Course Information Sheet

Instructions: To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:		MANF460											
Course title:		Supply Chain Tactics and Strategies											
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=MANF											
* Notes:		Provide explanatory notes on inconsistencies with calendar information (if applicable)											
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X													
Compulsory	Elective group	AU %		100%									
		AU Total	37	0		0		37		0		0	
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
** Enter content level codes for													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors	Family name		First name(s)		CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank			
Course-contact	Tosarkani												
Other(s)													
Course delivery and outcomes:		Acad credit	Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate		
		3.0	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)		
Learning outcome expectation for lecture and/or lab experience													
Major learning outcomes:	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												
	12												
Laboratory experience													
Laboratory experience details													
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Author : Title : Publisher : Year													
Required text(s): (required texts only not a reading list)		1											
		2											
		3											
		4											

Validation data

6 10
8 85
8 85
8 85
Yes No
X M
DiffCalc DiffEq Discret! IntCalc LinAlg NMeths Prob Stats
Chem Earth Life Phys
EngEco EnvSus H&S HumSS Impact: OWCon PEthics
0% 100%
8 180
I D A
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2 36
<2011 2012 2013 2014 2015 2016 2017
2017 2018 2019 2020 2021 2022 >2023
PEng EIT ing ingJr LL None
DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
Yes No
0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
>90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
A+ A A- B+ B C+ C D+ D E F
0 <-1 1-2 3-5 6-10 11-15 16-20 21-30 >30
0 85
0 70 Hands-on
1 12 Simulation
Yes No Problem
Project
Demo
0 85 Other

Appendix 6C - Course Information Sheet													
Instructions:		To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.											
Course number:		MANF465											
Course title:		Digital Enterprise											
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=MANF											
* Notes:		Provide explanatory notes on inconsistencies with calendar information (if applicable)											
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X													
Compulsory	Elective group	AU %								50%		50%	
		AU Total	43	0		0		0		22		22	
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
** Enter content level codes for													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors	Family name		First name(s)		CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank			
Course-contact	Al-Dabbagh												
Other(s)													
	Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)	
				2.0	3.0								
Learning outcome expectation for lecture and/or lab experience													
Major learning outcomes:	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												
	12												
Laboratory experience													
Laboratory experience details													
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Author : Title : Publisher : Year													
Required text(s): (required texts only not a reading list)	1												
	2												
	3												
	4												

Eof

Validation data

6 10
8 85
8 85
8 85
Yes No
X M
DiffCalc DiffEq Discret IntCalc LinAlg NMeths Prob Stats
Chem Earth Life Phys
EngEco EnvSus H&S HumSS Impact: OWCon PEthics
0% 100%
8 180
I D A
2 36
2 36
<2011 2012 2013 2014 2015 2016 2017
2017 2018 2019 2020 2021 2022 >2023
PEng EIT ing ingJr LL None
DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
Yes No
0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
>90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
A+ A A- B+ B C+ C D+ D E F
0 <-1 1-2 3-5 6-10 11-15 16-20 21-30 >30
0 85
0 70 Hands-on
1 12 Simulation
Yes No Problem
Project
Demo
0 85 Other

Appendix 6C - Course Information Sheet

Instructions: To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:		MANF470											
Course title:		Production Systems Management III											
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=MANF											
* Notes:		Provide explanatory notes on inconsistencies with calendar information (if applicable)											
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X													
Compulsory	Elective group	AU %						100%					
		AU Total	37	0		0		37		0		0	
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
** Enter content level codes for													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors	Family name		First name(s)		CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank			
Course-contact	Tosarkani												
Other(s)													
Course delivery and outcomes:		Acad credit	Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate		
		3.0	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)		
Learning outcome expectation for lecture and/or lab experience													
Major learning outcomes:	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												
	12												
Laboratory experience													
Laboratory experience details													
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Author : Title : Publisher : Year													
Required text(s): (required texts only not a reading list)		1											
		2											
		3											
		4											

Validation data

6 10
8 85
8 85
8 85
Yes No
X M
DiffCalc DiffEq Discret IntCalc LinAlg NMeths Prob Stats
Chem Earth Life Phys
EngEco EnvSus H&S HumSS Impact: OWCon PEthics
0% 100%
8 180
I D A
2 36
2 36
<2011 2012 2013 2014 2015 2016 2017
2017 2018 2019 2020 2021 2022 >2023
PEng EIT ing ingJr LL None
DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
Yes No
0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
>90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
A+ A A- B+ B C+ C D+ D E F
0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30
0 85
0 70 Hands-on
1 12 Simulation
Yes No Problem
Project
Demo
0 85 Other

Appendix 6C - Course Information Sheet

Instructions: To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:		COSC210											
Course title:		Software Construction											
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=COSC											
* Notes:		Provide explanatory notes on inconsistencies with calendar information (if applicable)											
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X				50%		50%							
Compulsory		Elective group	AU %	28		28		0		0		0	
1		2	56	28		28		0		0		0	
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
** Enter content level codes for													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors	Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	
Course-contact													
Other(s)													
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate	
		4.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	%	
				3.0	3.0								
Learning outcome expectation for lecture and/or lab experience													
Major learning outcomes:	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												
	12												
Laboratory experience													
Laboratory experience details													
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Author : Title : Publisher : Year													
Required text(s): (required texts only not a reading list)		1											
		2											
		3											
		4											

Validation data

6 10
8 85
8 85
8 85
Yes No
X M
DiffCalc DiffEq Discret! IntCalc LinAlg NMeths Prob Stats
Chem Earth Life Phys
EngEco EnvSus H&S HumSS Impact: OWCon PEthics
0% 100%
8 180
I D A
2 36
2 36
<2011 2012 2013 2014 2015 2016 2017
2017 2018 2019 2020 2021 2022 >2023
PEng EIT ing ingJr LL None
DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
Yes No
0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
>90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
A+ A A- B+ B C+ C D+ D E F
0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30
0 85
0 70 Hands-on
1 12 Simulation
Yes No Problem
Project
Demo
0 85 Other

Appendix 6C - Course Information Sheet

Instructions: To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:		COSC310											
Course title:		Software Engineering											
Calendar web link:		http://www.calendar.ubc.ca/okanagan/courses.cfm?qo=name&code=COSC											
* Notes:		Provide explanatory notes on inconsistencies with calendar information (if applicable)											
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
X				50%		50%							
Compulsory	Elective group	AU %		25		25		0		0		0	
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
** Enter content level codes for													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors	Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	
Course-contact													
Other(s)													
Course delivery and outcomes:		Acad credit	Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate		
		3.0	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)		
Learning outcome expectation for lecture and/or lab experience													
Major learning outcomes:	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												
	12												
Laboratory experience													
Laboratory experience details													
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Author : Title : Publisher : Year													
Required text(s): (required texts only not a reading list)	1												
	2												
	3												
	4												

Validation data

6	10												
8	85												
8	85												
8	85												
Yes	No												
		X											
			M										
DiffCalc	DiffEq	Discret	IntCalc	LinAlg	NMeths	Prob	Stats						
Chem	Earth	Life	Phys										
EngEco	EnvSus	H&S	HumSS	Impact	OWCorr	PEthics							
0%	100%												
8	180												
	I	D	A										
2	36												
2	36												
<2011	2012	2013	2014	2015	2016	2017							
2017	2018	2019	2020	2021	2022	>2023							
PEng	EIT	ing	ingJr	LL	None								
DPhil	DSc	PhD	MPhil	MSc	MEng	MA	BSc	BEng	BA	Other			
Full	Assoc	Asst	Emer	Adj	Sr Lec	Jr Lec	Sess	Other					
Yes	No												
0.5	12.0	0	15	<5	5-10	10-20	20-50	>50					
>90	89-85	84-80	79-75	74-70	69-65	64-60	59-55	54-50	49-40	<40			
A+	A	A-	B+	B	C+	C	D+	D	E	F			
0	<1	1-2	3-5	6-10	11-15	16-20	21-30	>30					
0	85												
0	70	Hands-on											
1	12	Simulation											
Yes	No	Problem											
		Project											
		Demo											
0	85	Other											

Appendix 6C - Course Information Sheet

Instructions:														To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:														TECHELEC1													
Course title:														MANF Technical Elective													
Calendar web link:														http://engineering.ok.ubc.ca/_shared/assets/Mechanical_Advising_Sheet_2018_1961488.pdf													
* Notes:														Students choose electives from a list of MANF technical electives													
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																											
CEAB course type		K-factor	Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design														
B3											50%																
Compulsory	Elective group	AU %	AU Total		0		0		0		19		0														
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL														
** Enter content level codes for														Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact																											
Instructors		Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank														
Course-contact																											
Other(s)																											
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate															
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	%															
Learning outcome expectation for lecture and/or lab experience																											
Major learning outcomes:		1																									
		2																									
		3																									
		4																									
		5																									
		6																									
		7																									
		8																									
		9																									
		10																									
		11																									
		12																									
Laboratory experience																											
Laboratory experience details																											
Lab type		Specify the predominant laboratory experience type for this course/learning activity																									
Number of labs		Specify the total number laboratory experiences for the course/learning activity																									
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																									
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?																									
Required text(s): (required texts only not a re-reading list)		Author : Title : Publisher : Year																									
		1																									
		2																									
		3																									
		4																									

Validation data

6 10
 8 85
 8 85
 8 85
 Yes No
 X M
 DiffCalc DiffEq Discret! IntCalc LinAlg NMeths Prob Stats
 Chem Earth Life Phys
 EngEco EnvSus H&S HumSS Impact: OWCon PEthics
 0% 100%
 8 180
 I D A
 2 36
 2 36
 <2011 2012 2013 2014 2015 2016 2017
 2017 2018 2019 2020 2021 2022 >2023
 PEng EIT ing ingJr LL None
 DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
 Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
 Yes No
 0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
 >90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
 A+ A A- B+ B C+ C D+ D E F
 0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30
 0 85
 0 70 Hands-on
 1 12 Simulation
 Yes No Problem
 Project
 Demo
 0 85 Other

Appendix 6C - Course Information Sheet

Instructions:													
To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:		TECHELEC1											
Course title:		MANF Technical Elective											
Calendar web link:		http://engineering.ok.ubc.ca/_shared/assets/Mechanical_Advising_Sheet_2018_1961488.pdf											
* Notes:		Students choose electives from a list of MANF technical electives											
* Provide explanatory notes on inconsistencies with calendar information (if applicable)													
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
Compulsory	B3	37		0		0		0		0		0	
Elective group	1	2	3	4	5	6	7	8	9	10	11	12	
CEAB graduate attribute content** (content code):	KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	
** Enter content level codes for													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors	Family name	First name(s)		CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank				
Course-contact													
Other(s)													
	Course delivery and outcomes:		Acad credit	Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate	
		3.0	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)		
Learning outcome expectation for lecture and/or lab experience													
Major learning outcomes:	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												
	12												
Laboratory experience		Laboratory experience details											
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Required text(s): (required texts only not a reading list)		Author : Title : Publisher : Year											
		1											
		2											
		3											
		4											

Validation data

6 10
8 85
8 85
8 85
Yes No
X M
DiffCalc DiffEq Discret! IntCalc LinAlg NMeths Prob Stats
Chem Earth Life Phys
EngEco EnvSus H&S HumSS Impact: OWCon PEthics
0% 100%
8 180
I D A
2 36
2 36
<2011 2012 2013 2014 2015 2016 2017
2017 2018 2019 2020 2021 2022 >2023
PEng EIT ing ingJr LL None
DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
Yes No
0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
>90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
A+ A A- B+ B C+ C D+ D E F
0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30
0 85
0 70 Hands-on
1 12 Simulation
Yes No Problem
Project
Demo
0 85 Other

Appendix 6C - Course Information Sheet

Instructions:													
To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:		TECHELEC3											
Course title:		MANF Technical Elective											
Calendar web link:		http://engineering.ok.ubc.ca/_shared/assets/Mechanical_Advising_Sheet_2018_1961488.pdf											
* Notes:		Students choose electives from a list of MANF technical electives											
* Provide explanatory notes on inconsistencies with calendar information (if applicable)													
CEAB course type		K-factor	Content category & elements	Math		Natural science		Complementary studies		Engineering science		Engineering design	
B3													
Compulsory	Elective group	AU %											
		AU Total	37	0	0	0	0	0	0	0	0	0	0
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL
** Enter content level codes for													
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)													
First row : Please list the most appropriate instructor to act as course contact													
Instructors	Family name			First name(s)			CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	
Course-contact													
Other(s)													
	Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate
		3.0		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)	
Learning outcome expectation for lecture and/or lab experience													
Major learning outcomes:	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												
	12												
Laboratory experience													
Laboratory experience details													
Lab type		Specify the predominant laboratory experience type for this course/learning activity											
Number of labs		Specify the total number laboratory experiences for the course/learning activity											
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?											
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?											
Author : Title : Publisher : Year													
Required text(s): (required texts only not a reading list)		1											
		2											
		3											
		4											

Validation data

6 10
8 85
8 85
8 85
Yes No
X M
DiffCalc DiffEq Discret IntCalc LinAlg NMeths Prob Stats
Chem Earth Life Phys
EngEco EnvSus H&S HumSS Impact: OWCon PEthics
0% 100%
8 180
I D A
2 36
2 36
<2011 2012 2013 2014 2015 2016 2017
2017 2018 2019 2020 2021 2022 >2023
PEng EIT ing ingJr LL None
DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
Yes No
0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
>90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40
A+ A A- B+ B C+ C D+ D E F
0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30
0 85
0 70 Hands-on
1 12 Simulation
Yes No Problem
Project
Demo
0 85 Other

Appendix 6C - Course Information Sheet

Instructions:													To be completed for every compulsory and elective course. Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.												
Course number:																									
Course title:																									
Calendar web link:																									
* Notes:																									
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																									
CEAB course type		K-factor	Content category & elements		Math		Natural science		Complementary studies		Engineering science		Engineering design												
Compulsory	Elective group	AU %																							
		AU Total	36		0		0		0		0		0												
CEAB graduate attribute content** (content code):		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL												
** Enter content level codes																									
Content level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																									
First row : Please list the most appropriate instructor to act as course contact																									
Instructors		Family name			First name(s)			CC member	Hire date	L. status	Highest Degree	Acad rank													
Course-contact																									
Other(s)																									
Course delivery and outcomes:		Acad credit		Hrs/wk		Number sections		Students/supervisor		Average grade		Failure rate (%)													
				Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter														
Learning outcome expectation for lecture and/or lab experience																									
Major learning outcomes:		1																							
		2																							
		3																							
		4																							
		5																							
		6																							
		7																							
		8																							
		9																							
		10																							
		11																							
		12																							
Laboratory experience																									
Lab type		Specify the predominant laboratory experience type for this course/learning activity																							
Number of labs		Specify the total number laboratory experiences for the course/learning activity																							
Laboratory safety taught ?		Are students instructed in safety issues associated with the laboratory space and the specific learning experience?																							
Laboratory safety examined ?		Is there verification, testing or checking that students have both received and understood safety issues?																							
Author : Title : Publisher : Year																									
Required text(s): (required texts only not a reading list)		1																							
		2																							
		3																							
		4																							

Eof

Validation data

6 10
8 85
8 85
8 85
Yes No
X M
DiffCal DiffEq Discret IntCalc LinAlg NMeths Prob Stats
Chem Earth Life Phys
EngEco EnvSus H&S HumSS Impact OWCon PEthics
0% 100%
8 180
I D A
2 36
2 36
<2011 2012 2013 2014 2015 2016 2017 2018 2019
2017 2018 2019 2020 2021 2022 2023 2024 >2025
PEng EIT ing ingJr LL P.Geo None
DPhil DSc PhD MPhil MSc MEng MA BSc BEng BA Other
Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
Yes No
0.5 12.0 0 15 <5 5-10 10-20 20-50 >50 0.0 6.0
>90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40 N/A
A+ A A- B+ B B- C+ C C- D+ D D- E F N/A
0 <1 1-2 3-5 6-10 11-15 16-20 21-30 >30 N/A
0 120
0 70 Hands-on
1 12 Simulation
Yes No Problem
Project
Demo
0 85 Other

Appendix 6C - Course Information Sheet (Prior Studies)

Instructions:														To be completed for <u>every compulsory and elective course</u> . Data used to validate input is stored in columns P-Z of this worksheet. Macros are provided to add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.													
Course number:														PSIS													
Course title:														Prior Studies													
Calendar web link:																											
* Notes:																											
* Provide explanatory notes on inconsistencies with calendar information (if applicable)																											
CEAB course type		K-factor	Content category & elements	Math				Natural science				Complementary studies				Engineering science				Engineering design							
Compulsory	Elective group	AU %																									
		AU Total	0				0				0				0												
CEAB graduate attribute content**		1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL														
(content code):																											
** Enter content level codes																											
Content level code: blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)																											

Eof

Validation data

6 10
8 85
8 85
8 85

Yes No

X M
DiffCalc DiffEq Discrete IntCalc IntCalc NMeths Prob Stats
Chem Earth Life Phys
EngEcon EnvSus H&S HumSS Impact ORCom PEthics

0% 100%

8 480 0 112

I D A

M NS CS ES ED
180 180 120 0 0