					Apper	ndix 6C - Cours	e Informatio	on Sheet					
Instructions:		add learning	; instructors, o	outcomes, te	exts and labo	<u>e course.</u> Data ratory content WILL INVALID	•	·			his worksheet	. Macros are	provided to
Course number	r:	APSC169											
Course title:		Fundamenta	ls of Sustaina	ble Engineer	ing Design								
Calendar web	link:	http://www.c	alendar.ubc.ca	a/okanagan/o	courses.cfm?	go=name&cod	e=APSC						
* Notes:													
* Provide expla	-	es on inconsi	stencies with	calendar inf	ormation (if a					1		-	
CEAB cours	se type	K-factor	Content	M	ath	Natural	science		tary studies	Engineeri	ing science	Engineer	ing design
Х		No	category &					EnvSust	Impacts	_	-	-	
Compulsory	Elective	AU %	elements		•				5%		0%		5%
	group	AU Total	49		0)		2		20		17
CEAB graduate content**	e attribute	1 KD	2	3	4 Dec	5 Taala	6 Taam	7	8 Draf	9	10 Ethica	11 5	12
(content code)).	KB	PA	lnv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL
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Content level			icable: l = int	oduced (int	roductory). D	= developed	intermediat	e): A = applie	d (advanced)				
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Instruct			Family name			First name(s)	1	CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank
Course-co	ontact	Taheri			Ray			No	<2011	>2023	PEng	PhD	Sr Lec
Other	·(s)												
			Acad	credit	Hr	s/wk	Number	r sections	Students/	supervisor	Averag	ge grade	Failure rate
Course del	ivery and c	outcomes:			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
			Identify	and characte		ning outcome entering proble		for lecture and	d/or lab expe	erience			
		1			5	51		art and gener	ate solution (concents			
			2 Define the scope & goals of a project, describe state of the art and generate solution concepts 2 Design solutions for complex, open-ended engineering problems										
		3 Design solutions for complex, open-ended engineering problems 4 Work effectively as a member and leader in teams											
Major lea	arning												
outcom	-	6			-	al engineers a	nd demonsti	rate profession	nal behavior				
Gaccon		7			•	ivity on societ		•		ations in desi	ign		
		8		-		gement into er	-						
		9	Address	individual lif	e-long learni	ng							
		10											
		11											
		12											
	atory exper	ience						ory experienc					
Lab type			Project			ant laboratory							
Number of lab			6			ber laboratory	-		-	-			
Laboratory saf			Yes			ed in safety iss				-			e?
Laboratory safe	ety examin	ed?	No	Is there	verification,	testing or chee	-			and underst	ood safety iss	ues?	
					igning Engin			Publisher : Ye	ear				

Required text(s):	1	McCahan, et al. : Designing Engineers : Wiley : 2015
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

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 Е В С F **A**+ **A**-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

				Apper	ndix 6C - Cours	e Informatio	on Sheet					
Instructions:	add learni	npleted for <u>ever</u> ing instructors, I R DELETING RC	outcomes, te	exts and labo	ratory content.	,				his worksheet	. Macros are	provided to
Course number:	APSC171											
Course title:	Engineerir	ng Drawing and	CAD/CAM									
Calendar web link:	http://www	.calendar.ubc.c	a/okanagan/o	courses.cfm?	go=name&code	=APSC						
* Notes:												
* Provide explanatory	notes on incor	nsistencies with	calendar inf	ormation (if	applicable)							
CEAB course type	K-factor	. Content	N	ath	Natural	science	Complemen	tary studies				
X	No	category &							Engineeri	ng science	Engineer	ring design
Electiv	e AU %	elements		•	1				5	0%	5	50%
Compulsory group	AU Total	49		0	0)		25		25
CEAB graduate attribu	ite 1	2	3	4	5	6	7	8	9	10	11	12
content**	KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL
(content code):		1		1	А		I			1		
** Enter content level	codes			-					•			
Content level code :	blank = not ap	plicable; I = int	roduced (int	roductory); D	= developed (intermediat	e); A = applie	d (advanced)				
First row : Please list	•	•			• •			,				
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)												
		Acad	credit	Hrs/wk		Number	r sections	Students/	supervisor	Averag	e grade	Failure rate
Course delivery ar	nd outcomes:			Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)
		3	.0	3.0 2.0 2 9 20-50 79-75 Learning outcome expectation for lecture and/or lab experience								
		Demonst			ning outcome e neering 2D sket			d/or lab expe	erience			
	1			-	neering 3D Ison	-	• •	tchoc				
	2			•	0	•	•		ring drawing			
	 Utilize SolidWorks as a powerful engineering drawing/modeling tool to create engineering drawings Utilize the concept of engineering design cycles (from conceptualization to final design documentation step) 											
	4		•		eam, participa		•	-		• •	occional mar	nor
Major learning	5		-		udging panel e		uiscussiolis, a		ate ili all'ett	ncat and prof	essional man	
outcomes:	6	Freseilt	ena product	to external J	aaging panet e	nectively						
	7											
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	10											
	11											
	12							1 4 11				
Laboratory ex	perience		C 16				ory experienc					
Lab type					ant laboratory							
Number of labs	1.1.2				ber laboratory	-		-	-			2
Laboratory safety taug	-				ed in safety iss				-			e?
Laboratory safety exa	mined ?		is there	verification,	testing or chec				and underst	bod safety iss	ues:	
			<u> </u>		Aut		Publisher : Y					

Required text(s):	1	McAdam & Winn : Engineering Graphics: A Problem Solving Approach, 3rd Ed. (Customized version) : Pearson : 2007
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

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 Е В С F **A**+ **A**-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

X No Category & DiffCatc IntCatc <	E QUESTIONNAIRE.	KSHEET AND THE QUE	TE THIS WOR	atory content VILL INVALIDA	xts and labor DTHER WAY N	outcomes, te	instructors,	add learning					
Engineering Analysis I Calendar web link: http://www.calendar.ubc.ca/okanagan/ocurses.cfm?go=name&code=APSC * Notes: * Provide explanatory notes on inconsistencies with calendar information (if applicable) Engineering science Engineering science <the< td=""><td>Engineering science Engineering design 0 0 8 9 10 11 12 Prof. Impacts Ethics Econ. LL vanced) </td><td>0 7 8</td><td></td><td>o=name&codo</td><td>ourses cfm?c</td><td></td><td></td><td>ADDING OK I</td><td></td><td>Instructions:</td></the<>	Engineering science Engineering design 0 0 8 9 10 11 12 Prof. Impacts Ethics Econ. LL vanced)	0 7 8		o=name&codo	ourses cfm?c			ADDING OK I		Instructions:			
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** Provide explanatory notes on inconsistencies with calendar information (if applicable) Natural science Complementary studies Engineering science Enginstructurg Content	Engineering science Engineering design 0 0 8 9 10 11 12 Prof. Impacts Ethics Econ. LL vanced)	0 7 8	science			a/okanagan/c	alendar.ubc.ca	http://www.ca	link:	Calendar web			
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KBPAInv.Des.ToolsTeamComm.Prof.ImpactsEthicsEcon.(content code):11000 <t< td=""><td>vanced)</td><td>-</td><td></td><td>0</td><td>43</td><td>4</td><td>43</td><td>AU Total</td><td>group</td><td>Compulsory</td></t<>	vanced)	-		0	43	4	43	AU Total	group	Compulsory			
(content code):11Image: Content level code(content code):(content level code):(conten	vanced) re date Est. ret. date L. status Highest Degree Acad rank	Comm. Prof	6	5	4	3	2	1	e attribute	CEAB graduate			
** Enter content level codes Content level code : blank = not applicable; l = 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 C. status Degree Course-contact Brereton John Alan No 2017 PEng PhD OLeary Stephen No 2017 PEng PhD OLeary Stephen No 2017 PEng PhD OLeary Stephen I Intervention Composition Intervention Intervention Composition Intervention Intervention Composition Intervention Intervent	re date Est. ret. date L. status Degree Acad rank		Team	Tools	Des.	Inv.	PA	KB		content**			
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InstructorsFamily nameFirst name(s)CC memberHire dateEst. ret. dateL. statusHighest DegreeCourse-contactBreretonJohn AlanNo2017PEngPhDO'LearyStephenIIIPEngPhDO'LearyStephenIIIIIImage: Image: I	date date L. status Degree Acad rank		,										
Course-contactBreactJohn AlanNo2017PEngPLngO'LearyStephenIII		CC member Hire date	C	First name(s)			Family name		ctors	Instruct			
O'Leary Stephen Image: Constraint of the state of th		No 2017			John Alan			Brereton	ontact	Course-co			
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Acad credit Lec Lab/tut Lec Lab/tut Lab Tut % Letter 3.0 3.0 1.0 2 7 20-50 64-60 64-60 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									Other(s)				
Acad credit Lec Lab/tut Lec Lab/tut Lab Tut % Letter 3.0 3.0 1.0 2 7 20-50 64-60 64-60 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													
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Course delivery and outcomes: Lec Lab/tut Lec Lab/tut Lab Tut % Letter 3.0 3.0 1.0 2 7 20-50 64-60 0 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	udents/supervisor Average grade Failure rate	ections Student	Number s	Hrs/wk		crodit	Acad						
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	Lab Tut % Letter (%)	Lab/tut Lab	Lec	Lab/tut	Lec	creat	Acau	outcomes:	livery and o	Course del			
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2 Demonstrate a comprehension of limits by utilizing limit laws and evaluating a limit													
	•	· · ·						1					
2 Demonstrate a comprehension of limits by using limits to compute the derivative of a function		-	-	-		-		2					
			-			-		3					
4 Apply mathematical methods of differentiation for different classes of functions													
Major learning 5 Apply mathematical methods by utilizing the derivative in applications relevant to the field of engineering				-				5					
outcomes: 6 Apply derivatives to find maximum, minimum, or otherwise optimal input values in problems relevant to engineering			-					6	-	=			
7 Demonstrate comprehension of integration by evaluating a definite integral and finding the area under a curve	-	-	-			=		7					
8 Demonstrate comprehension by correctly stating what a problem is asking and what steps are needed to solve it	what steps are needed to solve it	em is asking and what	what a probl	rrectly stating	hension by co	rate comprel	Demonst	8					
9 Interpret results in context of mathematics and evaluate whether results are reasonable	easonable	ther results are reasona	evaluate whet	hematics and	ontext of mat	t results in co	Interpre	9					
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11								11					
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Laboratory experience details			Laborator					ience	atory experi	Labora			
Lab type Specify the predominant laboratory experience type for this course/learning activity	tails	y experience details		ant laboratory	he predomina	Specify t				Lab type			
			experience ty										
Number of labs Specify the total number laboratory experiences for the course/learning activity	e/learning activity	pe for this course/lear			he total num	Specify t			с I.	Laboratory safe			
Number of labsSpecify the total number laboratory experiences for the course/learning activityLaboratory safety taught ?Are students instructed in safety issues associated with the laboratory space and the specific learning experience?	e/learning activity arning activity	pe for this course/lear for the course/learning	experiences f	per laboratory				?	fety taught	Laboratory Sar			
	e/learning activity earning activity tory space and the specific learning experience?	rpe for this course/lear for the course/learning I with the laboratory sp	experiences f ues associated	per laboratory d in safety iss	ents instructe	Are stude				-			

Required text(s):	1	Hass, Heil, & Weir : Thomas' Calculus: Early Transcendentals, 14th Ed. : Pearson : 2018
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

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 89-85
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 Е В С F **A**+ **A**-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

					Appen	dix 6C - Cours	e Informatio	n Sheet						
Instructions:		add learning	instructors,	outcomes, te	and elective xts and labor	<u>e course.</u> Data atory content WILL INVALIDA	used to valie	date input is s			nis worksheet	. Macros are	provided to	
Course numb	ber:	APSC173												
Course title:		Engineering	Analysis II											
Calendar we	b link:			a/okanagan/c	ourses.cfm?c	go=name&cod	e=APSC							
* Notes:														
* Provide exp	planatory not	es on inconsis	stencies with	calendar info	ormation (if a	pplicable)								
CEAB cou	urse type	K-factor	Content	Ma	ath	Natural	science	Complemen	tary studies					
Х		No	category &	IntCalc	1				-	Engineeri	ng science	Engineer	ing design	
	Elective	AU %	elements	10	0%									
Compulsory	group	AU Total	43	4	13	()	()		0		0	
CEAB gradua content**	te attribute	1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL	
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	ent level coo													
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First row : Pl							Internetiati	e), A – applied						
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	uctors		Family name			First name(s)	1	CC member	Hire date	date	L. status	Degree	Acad rank	
Course-	contact	Tiznobaik												
Other(s)														
					11		Ni um ha u		Cturdents /		A			
Course d	ماميم بمعرفاه		Acad	credit		s/wk		sections	Students/	-	-	e grade	Failure rate	
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		I		3.0 3.0 1.0 2 8 20-50 69-65 11-15 Learning outcome expectation for lecture and/or lab experience										
		1	Recogniz	e when integ		essary and be								
		2	-	-		•		, ,	-		and integratio	on by parts		
		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			-	ivergence of s			-		5			
Major	learning	5			-	ted by functio	-							
-	omes:	6	Graph po	olar coordina	tes, conics, a	nd parametri	c equations	•						
outee	Sines.	7				quations and f	-	an to polar eq	uations					
		8	Reflect o	on key conce	ots and appli	cations to ens	ure understa	nding						
		9												
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		11												
Labo	ratory exper	ience					Laborat	ory experienc	e details					
Lab type				Specify t	he predomina	ant laboratory				ng activity				
Number of la	abs				•	ber laboratory	•							
Laboratory sa		?				ed in safety iss			-	-	ecific learnin	ig experience	?	
Laboratory sa						esting or cheo				•		<u> </u>		
	-	1				-	-	Publisher : Ye						

Required text(s):	1	Hass, Heil, & Weir : Thomas' Calculus: Early Transcendentals, 14th Ed. : Pearson : 2018
(required texts only not	2	
a reaading list)	3	
	4	

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0.5 <5 5-10 10-20 20-50 >50 12.0 0 15 >90
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 Е В С F **A**+ **A**-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

					Appen	dix 6C - Cours	e Informatio	n Sheet					
Instructions:		add learning	instructors, o	outcomes, te	exts and labor	<u>e course.</u> Data ratory content WILL INVALIDA	•				nis worksheet	. Macros are	provided to
Course numb	er:	APSC176											
Course title:		Engineering	Communicatio	on									
Calendar we	b link:	http://www.ca	alendar.ubc.ca	a/okanagan/o	ourses.cfm?	go=name&cod	e=APSC						
* Notes:													
* Provide exp	olanatory not	es on inconsis	stencies with	calendar info	ormation (if a	applicable)							
CEAB cou	urse type	K-factor	Content	M	ath	Natural	science	Complemen	tary studies	Enginoori	ng science	Engineer	ing docign
Х		No	category &					OWComm		Engineeri	ng science	Engineer	ing design
Compulsory	Elective	AU %	elements					10	0%				
Computsory	group	AU Total	37		0	C)	3	7		0		0
CEAB gradua	te attribute	1	2	3	4	5	6	7	8	9	10	11	12
content**		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL
(content cod	e):					I	I	I					I
** Enter cont													
						= developed (intermediate	e); A = applied	d (advanced)				
First row : Pl	ease list the	most approp	riate instructo	or to act as c	ourse contac	t						-	
Instru	ictors		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	2017	>2023	None	PhD	Jr Lec
Other(s)													
			Acad	credit	Hrs/wk Numbe			r sections Students/supervis					Failure rate
Course de	elivery and o	utcomes:			Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)
			3.	.0									
						ing outcome e			1/or lab expe	rience			
		1				technical and	i scientific d	ocuments					
		2	-		d scientific to	-						£-	
		3				nents / Write e	effective aca	ademic prose a	about technic	at and scient	tific documen	ts	
		4			ed writing pr								
-	earning	5	Collabora	ate on oral a	na written co	ommunication	projects						
outco	omes:	6											
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	ratory exper	ience		C 16	h	ant lat		ory experience					
Lab type	ha				•	ant laboratory	•			<u> </u>			
Number of la Laboratory sa		2				ber laboratory ed in safety iss	-		-	-		a ovporiona	2
Laboratory sa						testing or chec							
	arety chamm			is there	, er meacion, i			Publisher : Ye			Jou surcey issu		

Required text(s):	1	Troyka & Hesse : Simon and Schuster Handbook for Writers, 6th Canadian Ed. : Pearson : 2013
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

0.5 <5 5-10 10-20 20-50 >50 12.0 0 15 >90
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 Е В С F **A**+ Α-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

				Apper	ndix 6C - Cours	e Informatio	on Sheet							
Instructions:	add learning	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 d learning instructors, outcomes, texts and laboratory content. DDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.												
Course number:	APSC177													
Course title:	Engineering	Computation	and Instrum	entation										
Calendar web link:	http://www.c	alendar.ubc.ca	a/okanagan/o	courses.cfm?	go=name&cod	e=APSC								
* Notes:														
* Provide explanatory no	otes on inconsi	stencies with	calendar inf	ormation (if	applicable)									
CEAB course type	K-factor	Content	Μ	ath	Natural	science	Complemen	tary studies	Engineering science		Engineer	ing design		
Х	No	category &							Engineering science		Engineer	ing design		
Compulsory Elective	AU %	elements			_					00%				
group	AU Total	43		0	C			0		43	-	0		
CEAB graduate attribute		2	3	4	5	_ 6	7	8	9	10	11	12		
content** (content code):	KB	PA	lnv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL		
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Content level code : bla First row : Please list the						internediat	e, $A = applie$	u (auvanced)						
First TOW . Flease list lin	e most approp								Est. ret.		Highost			
Instructors		Family name			First name(s)		CC member	Hire date	date	L. status	Highest Degree	Acad rank		
Course-contact	Chaaban													
				Anas			No	2018	>2023	None	PhD	Asst		
Other(s)														
		Acad	credit	Hrs/wk		Number	r sections	Students/	supervisor	-	e grade	Failure rate		
Course delivery and	outcomes:			Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)		
		3.	.0	3.0	1.0	2	10	10-20	L	69-65		16-20		
		L list the l	asic buildin		ning outcome e computer and			d/or lab expe	erience					
	1			-	•			flowcharts						
	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													
	3		e computer programs that illustrate the students' understanding of introductory concepts in computer programming gn and write programs that input data from either a keyboard or a file, process the data and generate output											
Major Joarning	4	-	-	-	ns efficiently		,	/ F	5					
Major learning outcomes:	6		5 1	1 5	numerically sol	ve engineer	ing problems							
outcomes.	7		F 2000		, 50	5	51							
	8													
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	11													
Laboratory expe	12					Laboret	ory experienc	o dotaile						
Lab type	hence	Hands-on	Specify	he predomin	ant laboratory				ing activity					
Number of labs		Hands-on 6		-	ber laboratory	-								
Laboratory safety taugh	t ?	No			ed in safety iss	-			-	ecific learnin		2?		
Laboratory safety exami		No			testing or chec				-					
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Required text(s):	1	
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

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 89-85
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 Е В С F **A**+ Α-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

				Appen	dix 6C - Cours	e Informatio	on Sheet						
Instructions:	add learning	instructors, o	outcomes, te	exts and labor	<u>e course.</u> Data ratory content WILL INVALID	•				nis worksheet	. Macros are	provided to	
Course number:	APSC178												
Course title:	Electricity, A	Aagnetism, an	nd Waves										
Calendar web link:				courses.cfm?c	go=name&cod	e=APSC							
* Notes:					•								
* Provide explanatory not	tes on inconsis	stencies with	calendar info	ormation (if a	applicable)								
CEAB course type	K-factor	Content	M	ath	Natural	science	Complemen	tary studies					
X	No	category &	IntCalc	Prob	Phys				Engineeri	ng science	Engineer	ing design	
Elective	AU %	elements		0%	50)%							
Compulsory group	AU Total	62		31	3	1)		0		0	
CEAB graduate attribute	1	2	3	4	5	6	7	8	9	10	11	12	
content**	KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.		
(content code):													
** Enter content level coo	les	· ·					1	L	I				
		= not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)											
		ist 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	
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Course-contact	Marktey			LUIC									
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						Number	r sections	Ctudopte/	supervisor	Averag		Failura rata	
				L				students/	supervisor	Averag	e grade	Failure rate	
Course delivery and a		Acad	credit	-	s/wk		1			0/	Latter	(%)	
Course delivery and c	Dutcomes:			Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)	
Course delivery and c	Dutcomes:	Acad o		Lec 4.0	Lab/tut 2.0	Lec 2	Lab/tut 9	Lab	20-50	% 64-60	Letter	(%) 16-20	
Course delivery and c		4.	.0	Lec 4.0 Learn	Lab/tut 2.0 ing outcome e	Lec 2 expectation f	Lab/tut 9 for lecture and	Lab d/or lab expe	20-50		Letter		
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Course delivery and c	1 2	4. Calculate Demonst	.0 e the electric rate an unde	Lec 4.0 Learn c field and el erstanding of	Lab/tut 2.0 ing outcome e ectric force cr capacitance a	Lec 2 expectation f reated by ch ind dielectric	Lab/tut 9 for lecture and arge distribut	Lab d/or lab expe ions	20-50 erience	64-60			
Course delivery and c	1 2 3	4. Calculate Demonst Demonst	.0 e the electric rate an unde rate an unde	Lec 4.0 Learn c field and el erstanding of erstanding of	Lab/tut 2.0 ing outcome e ectric force cu capacitance a current, resist	Lec 2 expectation f reated by ch nd dielectric tance, and e	Lab/tut 9 for lecture and arge distribut cs lectromotive	Lab d/or lab expe ions force and app	20-50 erience	64-60			
	1 2 3 4	4. Calculate Demonst Demonst Calculate	0 e the electric rate an unde rate an unde e the magnet	Lec 4.0 Learn c field and el erstanding of erstanding of tic field and r	Lab/tut 2.0 ing outcome e ectric force cr capacitance a current, resist magnetic force	Lec 2 expectation f reated by ch nd dielectric tance, and e e created by	Lab/tut 9 for lecture and arge distribut cs lectromotive f current distri	Lab d/or lab expe ions force and app butions	20-50 erience Dly methods t	64-60	circuits		
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Major learning	1 2 3 4 5 6 7	4. Calculate Demonst Demonst Calculate Demonst Demonst Demonst	0 e the electric rate an unde rate an unde e the magnet rate an unde rate an unde rate an unde	Lec 4.0 Learn c field and el erstanding of tic field and r erstanding of erstanding of erstanding of	Lab/tut 2.0 ing outcome e ectric force co capacitance a current, resist magnetic force electromagne inductance an electromagne	Lec 2 expectation f reated by ch and dielectric tance, and e e created by tic induction a apply met tic plane wa	Lab/tut 9 for lecture and arge distribut current distribut and apply me hods to analyzives	Lab d/or lab expe ions force and app butions ethods to solv	20-50 erience oly methods t re for induce	64-60 to analyze DC d electromoti	circuits ive force		
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Major learning	1 2 3 4 5 6 7 8 9 10	4. Calculate Demonst Demonst Calculate Demonst Demonst Demonst	0 e the electric rate an unde rate an unde e the magnet rate an unde rate an unde rate an unde	Lec 4.0 Learn c field and el erstanding of tic field and r erstanding of erstanding of erstanding of	Lab/tut 2.0 ing outcome e ectric force co capacitance a current, resist magnetic force electromagne inductance an electromagne	Lec 2 expectation f reated by ch and dielectric tance, and e e created by tic induction a apply met tic plane wa	Lab/tut 9 for lecture and arge distribut current distribut and apply me hods to analyzives	Lab d/or lab expe ions force and app butions ethods to solv	20-50 erience oly methods t re for induce	64-60 to analyze DC d electromoti	circuits ive force		
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Major learning outcomes: Laboratory exper	1 2 3 4 5 6 7 8 9 10 11 12	4. Calculate Demonst Demonst Calculate Demonst Demonst Demonst	0 e the electric rate an unde rate an unde e the magnet rate an unde rate an unde rate an unde sic principle	Lec 4.0 Learn c field and el erstanding of tic field and r erstanding of erstanding of erstanding of s in optics to	Lab/tut 2.0 ing outcome e ectric force ci capacitance a current, resisi magnetic force electromagne inductance ar electromagne analyze light	Lec 2 expectation f reated by ch and dielectric tance, and e e created by tic induction d apply met tic plane wa ray propagat	Lab/tut 9 for lecture and arge distribut current distribut and apply me hods to analyz ves cion	Lab d/or lab expe ions force and app butions ethods to solv ze direct curr	20-50 erience oly methods t re for induce rent circuits o	64-60 to analyze DC d electromoti	circuits ive force		
Major learning outcomes: Laboratory exper	1 2 3 4 5 6 7 8 9 10 11 12	4. Calculate Demonst Demonst Calculate Demonst Demonst Demonst	0 e the electric rate an unde rate an unde rate an unde rate an unde sic principles	Lec 4.0 Learn c field and el erstanding of tic field and re erstanding of erstanding of erstanding of s in optics to che predomina	Lab/tut 2.0 ing outcome e ectric force co capacitance a current, resist magnetic force electromagne inductance an electromagne analyze light	Lec 2 expectation f reated by ch and dielectric tance, and e e created by tic induction ad apply met tic plane wa ray propagat Laborat	Lab/tut 9 for lecture and arge distribut current distri- and apply me hods to analyzives cion ory experienc type for this	Lab d/or lab expe ions force and app butions ethods to solv ze direct curr direct curr e details	20-50 erience oly methods to rent circuits of ent circuits of ing activity	64-60 to analyze DC d electromoti	circuits ive force		
Major learning outcomes: Laboratory exper Lab type Number of labs	1 2 3 4 5 6 7 8 9 10 11 12 ience	4. Calculate Demonst Demonst Calculate Demonst Demonst Demonst	0 e the electric rate an unde rate an unde e the magnet rate an unde rate an unde rate an unde sic principles Specify t Specify t	Lec 4.0 Learn c field and el erstanding of erstanding of erstanding of erstanding of erstanding of s in optics to the predomina the total num	Lab/tut 2.0 ing outcome e ectric force cr capacitance a current, resist magnetic force electromagne inductance ar electromagne analyze light ant laboratory ber laboratory	Lec 2 expectation f reated by ch and dielectric tance, and e e created by tic induction apply met tic plane wa ray propagat Laborat y experience y experience	Lab/tut 9 for lecture and arge distribut cs lectromotive is and apply me hods to analyzives tion ory experience type for this of s for the cour	Lab d/or lab expe ions force and app butions ethods to solv ze direct curr direct curr e details course/learning a	20-50 erience oly methods t /e for induce rent circuits of ing activity ctivity	64-60	circuits ve force luctors	16-20	
Major learning outcomes: Laboratory exper Lab type Number of labs Laboratory safety taught	1 2 3 4 5 6 7 8 9 10 11 12 ience	4. Calculate Demonst Demonst Calculate Demonst Demonst Demonst	0 e the electric rate an unde rate an unde e the magnet rate an unde rate an unde rate an unde sic principles Specify t Specify t Are stude	Lec 4.0 Learn c field and el erstanding of erstanding of erstanding of erstanding of erstanding of erstanding of s in optics to the predomina the total num ents instructed	Lab/tut 2.0 ing outcome e ectric force cu capacitance a current, resist magnetic force electromagne inductance ar electromagne analyze light ant laboratory ber laboratory	Lec 2 expectation f reated by ch and dielectric tance, and e e created by tic induction ad apply met tic plane wa ray propagat Laborat v experience sues associat	Lab/tut 9 for lecture and arge distribut current distribut and apply me hods to analyz ves tion ory experience type for this of s for the cour- ed with the la	Lab d/or lab expe ions force and app butions ethods to solv ze direct curr direct curr e details course/learning a boratory space	20-50 erience oly methods to rent circuits of rent circuits of ng activity ctivity ce and the sp	64-60	circuits ve force luctors	16-20	
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Major learning outcomes: Laboratory exper Lab type Number of labs Laboratory safety taught Laboratory safety examin Required text(s): (required texts only not	1 2 3 4 5 6 7 8 9 10 11 12 ience ? hed ?	4. Calculate Demonst Calculate Demonst Demonst Demonst Apply ba	0 e the electric rate an unde rate an unde e the magnet rate an unde rate an unde rate an unde sic principles Specify t Specify t Are stude Is there v	Lec 4.0 Learn c field and el erstanding of tic field and re erstanding of erstanding of erstanding of erstanding of s in optics to the predomina the total num ents instructed	Lab/tut 2.0 ing outcome e ectric force co capacitance a current, resist magnetic force electromagne inductance an electromagne analyze light ant laboratory ber laboratory ed in safety iss testing or chee Au	Lec 2 expectation f reated by ch and dielectric tance, and e e created by tic induction ad apply met tic plane wa ray propagat Laborat experience y experience sues associat cking that st	Lab/tut 9 for lecture and arge distribut current distri- and apply me hods to analyzives cion ory experience type for this of s for the cour ed with the la udents have b Publisher : Ye	Lab d/or lab expe ions force and app butions ethods to solv ze direct curr direct curr e details course/learning a boratory space oth received ear	20-50 erience oly methods to rent circuits of rent circuits of ng activity ctivity ce and the sp	64-60	circuits ve force luctors	16-20	
Major learning outcomes: Laboratory exper Lab type Number of labs Laboratory safety taught Laboratory safety examin Required text(s):	1 2 3 4 5 6 7 8 9 10 11 12 ience	4. Calculate Demonst Calculate Demonst Demonst Demonst Apply ba	0 e the electric rate an unde rate an unde e the magnet rate an unde rate an unde rate an unde sic principles Specify t Specify t Are stude Is there v	Lec 4.0 Learn c field and el erstanding of tic field and re erstanding of erstanding of erstanding of erstanding of s in optics to the predomina the total num ents instructed	Lab/tut 2.0 ing outcome e ectric force co capacitance a current, resist magnetic force electromagne inductance an electromagne analyze light ant laboratory ber laboratory ed in safety iss testing or chee Au	Lec 2 expectation f reated by ch and dielectric tance, and e e created by tic induction ad apply met tic plane wa ray propagat Laborat experience y experience sues associat cking that st	Lab/tut 9 for lecture and arge distribut current distri- and apply me hods to analyzives cion ory experience type for this of s for the cour ed with the la udents have b Publisher : Ye	Lab d/or lab expe ions force and app butions ethods to solv ze direct curr direct curr e details course/learning a boratory space oth received ear	20-50 erience oly methods to rent circuits of rent circuits of ng activity ctivity ce and the sp	64-60	circuits ve force luctors	16-20	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

0.5 <5 5-10 10-20 20-50 >50 12.0 0 15 >90
 89-85
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 Е В С F **A**+ Α-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

					Appen	dix 6C - Cours	e Informatio	n Sheet						
Instructions:		add learning	instructors,	outcomes, te	xts and labor	<u>e course.</u> Data ratory content WILL INVALIDA	•	·			nis worksheet	. Macros are	provided to	
Course numb	er:	APSC179												
Course title:		Linear Algeb	ra for Engine	ers										
Calendar we	b link:	http://www.ca	alendar.ubc.ca	a/okanagan/c	ourses.cfm?c	go=name&cod	e=APSC							
* Notes:														
* Provide exp	planatory not	es on inconsis	stencies with	calendar info	ormation (if a	applicable)								
CEAB cou	urse type	K-factor	Content	Ma	ath	Natural	science	Complemen	tary studies	- · ·		F		
Х		No	category &	LinAlg						Engineeri	ng science	Engineer	ing design	
Constant	Elective	AU %	elements	10	0%									
Compulsory	group	AU Total	37		37	C)	()		0		0	
CEAB gradua	te attribute	1	2	3	4	5	6	7	8	9	10	11	12	
content**		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	
(content cod	e):	1												
** Enter cont	ent level coo	les				<u> </u>								
Content leve	l code : bla	nk = not appli	<pre><s (advanced)<="" (intermediate);="" (introductory);="" <="not" a="applied" applicable;="" d="developed" i="introduced" pre=""></s></pre>											
			-				<u>, </u>	<u></u>						
Instru			t appropriate instructor to act as course contact Family name First name(s) CC member Hire date Est. ret. date Highest Degree Acad rank											
Course-	contact	Shirazi			Mehran					uute		005,00		
Othe	er(s)													
U CIN														
					Hrs	s/wk	Number	sections	Students/	supervisor	Averag	e grade	Failure rate	
Course d	elivery and c	utcomes.	Acad	credit	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)	
course d		accomes.	3	.0	3.0		2	Lab/tut	Lau	Tut	74-70	Lettei	11-15	
				.0		ing outcome e		or lecture and	d/or lab expe	rience	74-70		11-15	
		1	Solve a s	vstem of line		using Gaussia				TIENCE				
		2		-	matrix operat	-								
		3		inverse of a	-									
		3				atrix using cof	actor and Cr	amer's rule						
	•	4				dependence, l			nace nullity	and rank of	a matrix			
-	earning	5			eigenvectors	•			pace, name					
outco	omes:	6	_		-	n of real symr	netric matric	~AS						
		7		least square	-	in of reat synn								
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		11												
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	ratory exper	ience	1	_				ory experienc						
Lab type						ant laboratory								
Number of la						ber laboratory	-		-	-				
Laboratory s						ed in safety iss						<u> </u>	?	
Laboratory s	afety examin	ed ?		Is there v	verification, t	testing or cheo	-			and understo	od safety issu	ues?		
						Au	thor : Title :	Publisher: Ye	ar					

Required text(s):	1	
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

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 Е В С F **A**+ Α-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

					Арреі	ndix 6C - Cours	e Informatio	on Sheet						
Instructions:		add learning	g instructors, o	outcomes, te	exts and labo	<u>e course.</u> Data ratory content WILL INVALIDA					nis worksheet	. Macros are	provided to	
Course numbe	er:	APSC180												
Course title:		Statics												
Calendar web	link:	http://www.c	alendar.ubc.ca	a/okanagan/o	ourses.cfm?	go=name&code	e=APSC							
* Notes:														
* Provide expla	anatory not	tes on inconsi	stencies with	calendar inf	ormation (if	applicable)								
CEAB cours	se type	K-factor	Content	М	ath	Natural	science	Complemen	tary studies	Fasianari		Fasiasa	the design	
Х		No	category &	LinAlg		Phys				Engineen	ng science	Engineering design		
Commulation	Elective	AU %	elements	2	5%	75	%							
Compulsory	group	AU Total	49		12			()				0	
CEAB graduate	e attribute	1	2	3	4	5	6	7	8	9	10	11	12	
content**		KB	PA	lnv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	
(content code)):	I												
** Enter conter	nt level coo	des												
Content level	code : bla	nk = not appl	icable; I = inti	roduced (inti	oductory); D) = developed (intermediat	e); A = applie	d (advanced)					
First row : Plea	ase list the	most approp	riate instructo	or to act as o	ourse contac	ct								
Instruc	tors		Family name			First name(s)		CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	
Course-co	ontact	Goh			Seach Chyr	(Ernest)		No	2016	>2023	PEng	PhD	Jr Lec	
		Taheri			Ray	、 <i>,</i>		No	<2011	>2023	PEng	PhD	Sr Lec	
Other	Other(s)													
		<u> </u>								<u> </u>				
					Цr	s/wk	Numbo	r sections	Students/	supervisor	Avorac	e grade	Failure rate	
Course del	livory and c	utcomos:	Acad	credit				1		•	Averag %	T	(%)	
Course det	livery and t	Juccomes.		.0	Lec 3.0	Lab/tut 2.0	Lec 2	Lab/tut	Lab	Tut 20-50	⁷⁰ 64-60	Letter	21-30	
		1	, , , , , , , , , , , , , , , , , , ,	.0		ning outcome e	=	3	d/or lab over		04-00		21-30	
		1	Apply the	e fundament		algebra to def					stems			
		2				ms in order to		•						
		3		5 5	•	prces and mome		, ,		and frames	problems			
						ers of a truss an				,	P			
Majarla		4				on in order to s		ons of equilibr	ium					
Major lea	-		, apply an				Joire equation	ons of equilibri						
outcom	nes:	6												
		7												
		8												
		9 10												
		11												
Labora	ton ovnor						Laborat		o dotaile					
	atory exper	ience		Specific	ho prodomin	ant laboratory		ory experienc		na activity				
Lab type Number of lab	<u>کې</u>													
Laboratory saf		Specify the total number laboratory experiences for the course/learning activity ght ? Are students instructed in safety issues associated with the laboratory space and the specific learning experience?												
Laboratory saf						testing or chec			, ,			- ·	-•	
Laboratory sal	cty channi		l	is there	incacion,	-	-	Publisher : Ye			Sou salety iss			
						Aut			al					

Required text(s):	1	Meriam, Kraige, & Bolton : Engineering Mechanics: Statics : Wiley : 2015
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

0.5 <5 5-10 10-20 20-50 >50 12.0 0 15 >90
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 84-80
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 Е В С F **A**+ Α-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

					Appen	idix 6C - Cours	e Informatio	n Sheet						
Instructions:		add learning	instructors, o	outcomes, te	xts and labor	e course. Data ratory content WILL INVALIDA	•				nis worksheet	. Macros are	provided to	
Course numb	er:	APSC181												
Course title:		Dynamics												
Calendar we	b link:	http://www.ca	alendar.ubc.ca	a/okanagan/c	ourses.cfm?	go=name&cod	e=APSC							
* Notes:														
* Provide exp	planatory not	es on inconsis	stencies with	calendar info	ormation (if a	applicable)								
CEAB cou	urse type	K-factor	Content	Ma	ath	Natural	science	Complemen	tary studies	For sin a sui		Fasinger	ing design	
Х		No	category &	DiffCalc	IntCalc Phys				Engineering science		Engineer	ing design		
Compulsory	Elective	AU %	elements	3	0%	40	0%			3	0%			
Compulsory	group	AU Total	49	1	5	2	0	()	1	5		0	
CEAB gradua	te attribute	1	2	3	4	5	6	7	8	9	10	11	12	
content**		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	
(content cod	e):	I												
** Enter cont	ent level coo	les												
		nk = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)												
First row : Pl	lease list the	most approp	riate instructo	or to act as c	ourse contac	t								
Instru	uctors		Family nameFirst name(s)CC memberHire dateEst. ret. dateL. statusHighest DegreeAcad rank											
Course-	contact	Goh			Seach Chyr	(Ernest)		No	2016	>2023	PEng	PhD	Jr Lec	
Othe	er(s)													
			Acad	cradit	Hrs	s/wk	Number	sections	Students/	supervisor	Averag	e grade	Failure rate	
Course d	elivery and c	utcomes:	Acau	creat	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)	
			3	.0	3.0	2.0	2	6		>50	64-60		16-20	
						ing outcome e			d/or lab expe	rience				
		1				for a given dyr	•							
		2			-	em by disinte								
		3			-	ath framework		-			or rigid body)			
		4	Solve eq	uations of mo	otion and inte	erpret the cor	responding p	hysical meani	ng of the solu	ution				
Major l	earning	5												
outco	omes:	6												
		7												
		8												
		9												
		10												
	11													
		12												
	ratory exper	ience	T					ory experienc						
Lab type					-	ant laboratory	-							
Number of la		_				ber laboratory	-			-			_	
Laboratory s						ed in safety iss						<u> </u>	?	
Laboratory s	arety examin	ed ?		Is there v	erification, t	testing or cheo	-			and understo	ood safety issu	les?		
						Au	rnor : Litle :	Publisher: Ye	Par					

Required text(s):	1	Meriam, Kraige & Bolton : Engineering Mechanics: Dynamics : Wiley : 2015
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

0.5 <5 5-10 10-20 20-50 >50 12.0 0 15 >90
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 Е В С F **A**+ Α-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

					Appen	dix 6C - Cours	e Informatio	n Sheet					
Instructions:		add learning	instructors,	outcomes, te	xts and labor	<u>e course.</u> Data atory content WILL INVALIDA	•				nis worksheet	. Macros are	provided to
Course numb	per:	APSC182											
Course title:		Matter and E	Energy I										
Calendar we	b link:	http://www.ca	alendar.ubc.ca	a/okanagan/c	ourses.cfm?c	go=name&cod	e=APSC						
* Notes:													
* Provide exp	planatory not	es on inconsis	stencies with	calendar info	ormation (if a	applicable)							
CEAB cou	urse type	K-factor	Content	Ma	ath	Natural	science	Complemen	tary studies	Enginoori	na science	Engineer	ing design
Х		No	category &		Chem Phys					Engineering science		Engineer	ing design
Compulsory	Elective	AU %	elements			10	0%						
	group	AU Total	37		0	3	7	()		0		0
CEAB gradua	te attribute	1	2	3	4	5	6	7	8	9	10	11	12
content**		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL
(content cod	le):	I	I	I		I		I					
	ent level coo												
			= not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)										
First row : Pl	lease list the	most approp	riate instruct	or to act as c	ourse contac	t					1		•
Instru	uctors		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
		Uhl			Alexander								
Othe	er(s)												
			Acad	credit	Hrs	s/wk	Number	sections	Students/	supervisor		e grade	Failure rate
Course d	elivery and c	outcomes:			Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)
		•	3	.0	2.0	2.0	2	15	20-50	>50	74-70		16-20
			Domonst	rato compro		ing outcome e d apply physic					fonginooring	4	
		1		-		rocedures, too							methods
		2				d documents		-		sider equipin			g methous.
		3				synthesize tec		•	-				
		4	Read, ul		terpret, and	synthesize tec		on-technicati	mormation				
=	learning	5											
outco	omes:	6											
		7											
		8											
		9											
		10											
		11 12											
Labo	ratory ovpor						Laborat	ory oxporione	o dotails				
	ratory exper	icrice	Hands-on	Specify +	he predomin	ant laboratory		ory experience		ng activity			
Lab type Number of la	ahs		Hands-on	. ,		ber laboratory							
Laboratory s		?	Yes			ed in safety iss	•				ecific learnin	ø experience	27
Laboratory s			Yes			testing or chea						<u> </u>	•
	, ety enamine		105			-	-	Publisher : Ye					

Required text(s):	1	Customized textbook for UBCO: Matter & Energy I/II : Wiley : 2017
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

0.5 <5 5-10 10-20 20-50 >50 12.0 0 15 >90
 89-85
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 Е В С F **A**+ Α-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

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. <i>I</i> add learning instructors, outcomes, texts and laboratory content. ADDING OR DELETING ROWS IN ANY OTHER WAY WILL INVALIDATE THIS WORKSHEET AND THE QUESTIONNAIRE.	Macros are											
Course number: ADSC192		provided to										
Course number: APSC183												
Course title: Matter and Energy II												
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 Math Natural science Complementary studies Engineering science	Engineer	ing design										
X No category te Chem	5											
CompulsoryElective groupAU %elements100%AU Total370370		0										
		- T										
CEAB graduate attribute12345678910content**KBPAInv.Des.ToolsTeamComm.Prof.ImpactsEthics	11 Econ.	12 LL										
(content code):	LCOII.											
** Enter content level codes												
	not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced)											
First row : Please list the most appropriate instructor to act as course contact												
Est rot	Highest											
Instructors Family name First name(s) CC member Hire date date L. status	Degree	Acad rank										
Course-contact Roberts Deborah												
Pakpour												
Other(s)												
Acad credit Hrs/wk Number sections Students/supervisor Average		Failure rate										
Course delivery and outcomes: Lec Lab/tut Lec Lab/tut Lab Tut %	Letter	(%)										
3.0 2.0 2 15 20-50 >50 79-75		3-5										
Learning outcome expectation for lecture and/or lab experience 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												
Major learning 5 Formulate or apply appropriate procedures, tools, and techniques to collect data; Consider equipment limitations	and metho	ods										
outcomes: 6 Formulate or apply appropriate procedures, tools, and techniques to analyze and process data to reach appropriate												
7 Select or apply appropriate laboratory equipment or techniques to model, analyze, or visualize an engineering tas												
8 Recognize a variety of working and learning preferences and world-views; Appreciate the value of diversity on a te												
9 Participate effectively in oral exchanges with technical and non-technical personnel												
10												
11												
12												
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	e?										
Laboratory safety examined ? Yes Is there verification, testing or checking that students have both received and understood safety issue	es?											

Required text(s):	1	Customized textbook for UBCO: Matter & Energy I/II : Wiley : 2017
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

0.5 <5 5-10 10-20 20-50 >50 12.0 0 15 >90
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 Е В С F **A**+ Α-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

					Appen	idix 6C - Cours	e Informatio	n Sheet					
Instructions:		add learning	instructors,	outcomes, te	xts and labor	<u>e course.</u> Data ratory content WILL INVALIDA		·			nis worksheet	. Macros are	provided to
Course numb	er:	APSC201											
Course title:		Technical Co	ommunication										
Calendar we	b link:	http://www.ca	alendar.ubc.ca	a/okanagan/c	ourses.cfm?	go=name&code	e=APSC						
* Notes:													
* Provide exp	planatory not	es on inconsis	stencies with	calendar info	ormation (if a	applicable)							
CEAB cou	urse type	K-factor	Content	M	ath	Natural	science	Complemen	tary studies	En min a suit		F acility of the second	
Х		No	category &					OWComm		Engineering science		Engineer	ing design
Compulsor	Elective	AU %	elements					10	0%				
Compulsory	group	AU Total	37		0	0		3	7		0		0
CEAB gradua	te attribute	1	2	3	4	5	6	7	8	9	10	11	12
content**		KB	PA	lnv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL
(content cod	e):					D	D	D					D
** Enter cont	ent level coo	les											
Content leve	l code : blai	nk = not appli	icable; I = int	roduced (intr	oductory); D	= developed (intermediate	e); A = applie	d (advanced)				
First row : Pl	ease list the	most approp	= not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced) ost appropriate instructor to act as course contact										
Instru	ictors		Family nameFirst name(s)CC memberHire dateEst. ret. dateL. statusHighest DegreeAcad rank										
Course-	contact	Patterson			Laura			No	<2011	>2023	None	MA	Sr Lec
		Eikenaar			Jannik			No	2014	>2023	None	PhD	Jr Lec
Othe	r(c)												
Ulle	21(5)												
					1								
					Hrs/wk		Number	sections	Students/	/supervisor Av		e grade	Failure rate
Course d	elivery and c	utcomes	Acad	credit	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	Averag %	Letter	(%)
course d	cuvery and c	accomes.	3	.0	3.0	Lab/tut	8	Lab/tut	Lab	Tut	74-70	Letter	6-10
				.0		ing outcome e		or lecture and	l/or lab evne	rience	74-70		0-10
		1	Analyze	the rhetorica		technical con				nence			
		2	-			e, ethical doc			-				
		3	Collabor	ate on oral a	nd written co	ommunication	projects						
		4											
Major	earning	5											
outco		6											
outee	ines.	7											
		8											
		9											
		10											
		11											
		12											
Laboratory experience Laboratory experience details													
Lab type	7 1 2			Specify t	he predomina	ant laboratory				ng activity			
Number of la	abs					ber laboratory							
Laboratory sa		?				ed in safety iss					ecific learnin	ig experience	?
Laboratory sa						testing or chec				-			
	-				,	-	-	Publisher : Ye					

Required text(s):	1	Markel & Selber : Technical Communication, 12th Ed. : Bedford / St. Martin's : 2018
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

0.5 <5 5-10 10-20 20-50 >50 12.0 0 15 >90
 89-85
 84-80
 79-75
 74-70
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 64-60
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 Е В С F **A**+ Α-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

					Appen	ndix 6C - Cours	e Informatio	on Sheet					
Instructions:		add learning	g instructors,	outcomes, te	xts and labor	<u>e course.</u> Data ratory content WILL INVALIDA		·			his worksheet	:. Macros are	provided to
Course numbe	er:	APSC246											
Course title:		System Dyna	amics										
Calendar web	link:	http://www.c	alendar.ubc.c	a/okanagan/c	ourses.cfm?g	go=name&cod	e=APSC						
* Notes:													
* Provide expl	lanatory not	tes on inconsi	stencies with	calendar info	ormation (if a	applicable)							
CEAB cou	rse type	K-factor	Content	Ma	th Natural science			Complemen	tary studies	F action and		E a artis a su	
Х		No			DiffCalc					Engineeri	ing science	Engineer	ring design
Compulsor	Elective	AU %	elements	7	5%					2	.5%		
Compulsory	group	AU Total	43		32	C)	()		11		0
CEAB graduat	e attribute	1	2	3	4	5	6	7	8	9	10	11	12
content**		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL
(content code	e):	D	D										
** Enter conte	ent level coo	des											
Content level	code : bla	nk = not appl	icable; I = int	roduced (intr	oductory); D	= developed (intermediat	e); A = applie	d (advanced)				
First row : Ple	ease list the	most approp	riate instruct	or to act as c	ourse contac	t							
Instrue	ctors		Family name			First name(s)		CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank
Course-c	contact	Zarifi										5	
Othe	r(s)												
		L									-		
							<u> </u>			•			
Course do			Acad	credit		s/wk		r sections		supervisor	-	ge grade	Failure rate
Course de	elivery and c	outcomes:		0	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)
			3	.0	3.0	1.0	2	5		>50	69-65		11-15
			I Identify	different typ		ning outcome e s, signals and r		for tecture and	1701 lab expe	enence			
		2	-		•	ce, causality o	•	stem					
						fundamental f			of operators	used in stud	ly of engineer	ring systems	
		3			-	to describe ELI		-	-				
11 - i I -		4				to describe ELI							
Major le	-					solutions to fi	-						
outcor	11105.	6		-		ed coefficient			=		rt. solutions		
		8				n of the compl		-		,			
		8				rm knowledge				ems			
		10		•		complex prob		-	• •				
		10	-			at applies to a			-		nclusions		
		12		5	5		5 1						
Labor	atory exper						Laborat	ory experienc	e details				
Lab type	atory exper			Specify t	he predomin	ant laboratory		· ·		ng activity			
Number of lat	hs				-	ber laboratory	-						
Laboratory sa		7				ed in safety iss	-			-	pecific learnin	o experience	۵?
Laboratory sa						testing or chec				-			
Laboratory 3a				is there v	crinicación, i	-	-	Publisher : Ye			sou survey iss		
1						Aut Compiled for L							

Required text(s):	1	Cao : APSC 246 System Dynamics Compiled for UBC Okanagan : Pearson : 2015
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

0.5 <5 5-10 10-20 20-50 >50 12.0 0 15 >90
 89-85
 84-80
 79-75
 74-70
 69-65
 64-60
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 54-50
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 Е В С F **A**+ Α-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

				Appen	dix 6C - Cours	e Informatio	on Sheet					
Instructions:	add learning	instructors, o	outcomes, te	xts and labor	atory content	•	date input is s			nis worksheet.	. Macros are	provided to
Course number:	APSC248											
Course title:	Engineering	Analvsis III										
Calendar web link:			a/okanagan/g	ourses cfm?c	go=name&cod	e=APSC						
* Notes:	<u></u>		ar or ten rengen ar o		<u>jo</u>	<u> </u>						
* Provide explanatory not	tes on inconsis	stencies with	calendar info	ormation (if a	pplicable)							
CEAB course type	K-factor	Content		ath	Natural	science	Complemen	tary studies				
X	No	category &	DiffCalc		Hatalat Science		comptemen	Complementary studies		ng science	Engineer	ing design
Elective	AU %	elements		00%								
Compulsory group	AU Total		43 43 0)		0		0
CEAB graduate attribute	1 1	2	3	1	5		7	, 8	9	10		<u> </u>
content**	KB	PA	ہ Inv.	4 Des.	Tools	6 Team	Comm.	ہ Prof.	9 Impacts	Ethics	11 Econ.	12 LL
(content code):	D	FA	1110.	Des.	100(3	Tean	comm.	FIOL.	impacts	Luncs	LCOII.	
** Enter content level co												
		and interest	aduard (inte			(intervene diet						
Content level code : bla						Intermediat	e); A = applie	(advanced)				
First row : Please list the	nost approp	nate instructo	or to act as c	ourse contac	t				-			
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
	Klukas			Richard			No	<2011	>2023	PEng	PhD	Assoc
Other(s)												
	<u> </u>											
	<u> </u>											
				Hrs	s/wk	Number	r sections	Students/	supervisor	Averag	e grade	Failure rate
Course delivery and o	outcomes:	Acad	credit	Lec	Lab/tut	Lec	Lab/tut Lab		Tut %		Letter	(%)
		3	.0	3.0	1.0	2	6	240	>50	69-65	Letter	16-20
	1					_	for lecture and	l/or lab evne		07 05		10 20
	1			Leann	ing outcome e				incluce			
		Illustrate	e multivariab	le functions t	through level of	curves and le	evel surfaces					
	-				-	curves and le	evel surfaces					
	2	Complet	e partial der	ivative of fun	ctions of mult	curves and le	evel surfaces es					
	2 3	Complete Construc	e partial der t parametric	ivative of fun equations of	ctions of mult lines, planes	curves and le tiple variable and curves,	evel surfaces es and find arc l					
Naior loarning	2 3 4	Complete Construc Evaluate	e partial der t parametric double and	ivative of fun equations of triple integra	ctions of mult lines, planes Ils in different	curves and le tiple variable and curves, coordinate	evel surfaces es and find arc l systems					
Major learning	2 3 4 5	Completo Construc Evaluate Evaluate	e partial der t parametric double and surface inte	ivative of fun equations of triple integra gral and unde	ictions of mult lines, planes ils in different erstand the flu	curves and le ciple variable and curves, coordinate ux through a	evel surfaces es and find arc l systems surface	ength				
Major learning outcomes:	2 3 4 5 6	Complete Construc Evaluate Evaluate Apply the	e partial der t parametric double and surface inte e concepts o	ivative of fun equations of triple integra gral and und f gradient, di	ictions of mult lines, planes ils in different erstand the flu vergence and	curves and lo ciple variable and curves, coordinate ux through a curl to engi	evel surfaces es and find arc l systems surface neering applic	ength ations				
	2 3 4 5 6 7	Complete Construc Evaluate Evaluate Apply the Employ I	e partial der t parametric double and surface inte e concepts o Divergence th	ivative of fun equations of triple integra gral and und f gradient, di neorem and S	ictions of mult Tines, planes Its in different erstand the flu vergence and tokes' theorer	curves and lo ciple variable and curves, coordinate ux through a curl to engin m to simplify	evel surfaces es and find arc l systems surface neering applic y certain mult	ength ations iple integrals				
	2 3 4 5 6 7 8	Complete Construc Evaluate Evaluate Apply the Employ I	e partial der t parametric double and surface inte e concepts o Divergence th	ivative of fun equations of triple integra gral and und f gradient, di neorem and S	ictions of mult Tines, planes Its in different erstand the flu vergence and tokes' theorer	curves and lo ciple variable and curves, coordinate ux through a curl to engin m to simplify	evel surfaces es and find arc l systems surface neering applic	ength ations iple integrals				
	2 3 4 5 6 7 8 9	Complete Construc Evaluate Evaluate Apply the Employ I	e partial der t parametric double and surface inte e concepts o Divergence th	ivative of fun equations of triple integra gral and und f gradient, di neorem and S	ictions of mult Tines, planes Its in different erstand the flu vergence and tokes' theorer	curves and lo ciple variable and curves, coordinate ux through a curl to engin m to simplify	evel surfaces es and find arc l systems surface neering applic y certain mult	ength ations iple integrals				
	2 3 4 5 6 7 8 9 10	Complete Construc Evaluate Evaluate Apply the Employ I	e partial der t parametric double and surface inte e concepts o Divergence th	ivative of fun equations of triple integra gral and und f gradient, di neorem and S	ictions of mult Tines, planes Its in different erstand the flu vergence and tokes' theorer	curves and lo ciple variable and curves, coordinate ux through a curl to engin m to simplify	evel surfaces es and find arc l systems surface neering applic y certain mult	ength ations iple integrals				
	2 3 4 5 6 7 8 9 10 11	Complete Construc Evaluate Evaluate Apply the Employ I	e partial der t parametric double and surface inte e concepts o Divergence th	ivative of fun equations of triple integra gral and und f gradient, di neorem and S	ictions of mult Tines, planes Its in different erstand the flu vergence and tokes' theorer	curves and lo ciple variable and curves, coordinate ux through a curl to engin m to simplify	evel surfaces es and find arc l systems surface neering applic y certain mult	ength ations iple integrals				
outcomes:	2 3 4 5 6 7 8 9 10 11 12	Complete Construc Evaluate Evaluate Apply the Employ I	e partial der t parametric double and surface inte e concepts o Divergence th	ivative of fun equations of triple integra gral and und f gradient, di neorem and S	ictions of mult Tines, planes Its in different erstand the flu vergence and tokes' theorer	curves and lo ciple variable and curves, coordinate ux through a curl to engi m to simplify dems in fluic	evel surfaces es and find arc l systems surface neering applic y certain mult d mechanics an	ength ations iple integrals nd EMF				
outcomes: Laboratory exper	2 3 4 5 6 7 8 9 10 11 12	Complete Construc Evaluate Evaluate Apply the Employ I	e partial der t parametric double and surface inte e concepts o Divergence th ctorcalculus	ivative of fun equations of triple integra gral and unde f gradient, di neorem and S to solve prac	ictions of mult Tines, planes Its in different erstand the flu vergence and tokes' theoren tical eng prob	curves and lo ciple variable and curves, coordinate ux through a curl to engin to simplify dems in fluic Laborat	evel surfaces and find arc l systems surface neering applic y certain mult d mechanics an	ength ations iple integrals nd EMF e details				
outcomes: Laboratory exper	2 3 4 5 6 7 8 9 10 11 12	Complete Construc Evaluate Evaluate Apply the Employ I	e partial der t parametric double and surface inte e concepts o Divergence th ctorcalculus	ivative of fun equations of triple integra gral and unde f gradient, di neorem and S to solve prac he predomina	ant laboratory	curves and lo ciple variable and curves, coordinate ux through a curl to engin to simplify dems in fluic Laborat	evel surfaces and find arc l systems surface neering applic y certain mult d mechanics an ory experienc type for this o	ength ations iple integrals nd EMF e details course/learni	ng activity			
outcomes: Laboratory exper Lab type Number of labs	2 3 4 5 6 7 8 9 10 11 12 ience	Complete Construc Evaluate Evaluate Apply the Employ I	e partial der t parametric double and surface inte e concepts o Divergence th ctorcalculus Specify t Specify t	ivative of fun equations of triple integra gral and unde f gradient, di neorem and S to solve prace he predomina he total num	ant laboratory	curves and lo ciple variable and curves, coordinate ux through a curl to engin m to simplify lems in fluic Laborat y experience y experience	evel surfaces and find arc l systems surface neering applic y certain mult d mechanics an cory experienc type for this of s for the cours	ength ations iple integrals nd EMF e details course/learni se/learning a	ng activity ctivity			
Laboratory exper Lab type Number of labs Laboratory safety taught	2 3 4 5 6 7 8 9 10 11 12 rience	Complete Construc Evaluate Evaluate Apply the Employ I	e partial der t parametric double and surface inte e concepts o Divergence th ctorcalculus Specify t Specify t Are stude	ivative of fun equations of triple integra gral and unde f gradient, di neorem and S to solve prace he predomina he total num ents instructe	ant laboratory ber laboratory di n safety iss	curves and lo ciple variable and curves, coordinate ux through a curl to engi m to simplify dems in fluic Laborat v experience y experience sues associat	evel surfaces and find arc l systems surface neering applic y certain mult d mechanics an ory experienc type for this or s for the cours ed with the la	ength ations iple integrals nd EMF e details course/learni se/learning a boratory space	ng activity ctivity ce and the sp			2?
Laboratory exper Lab type Number of labs Laboratory safety taught	2 3 4 5 6 7 8 9 10 11 12 rience	Complete Construc Evaluate Evaluate Apply the Employ I	e partial der t parametric double and surface inte e concepts o Divergence th ctorcalculus Specify t Specify t Are stude	ivative of fun equations of triple integra gral and unde f gradient, di neorem and S to solve prace he predomina he total num ents instructe	ant laboratory ber laboratory din safety iss cesting or chee	Laborat experience y experience curs associat curs to engli to simplify curs in fluic	evel surfaces and find arc l systems surface neering applic y certain mult d mechanics an cory experienc type for this of s for the cours ed with the la udents have b	ength ations iple integrals nd EMF e details course/learni se/learning a boratory space oth received	ng activity ctivity ce and the sp			2?
Laboratory exper Lab type Number of labs Laboratory safety taught	2 3 4 5 6 7 8 9 10 11 12 rience	Complete Construc Evaluate Evaluate Apply the Employ I Apply ve	e partial der t parametric double and surface inte e concepts o Divergence th ctorcalculus Specify t Specify t Are stude Is there y	ivative of fun equations of triple integra gral and unde f gradient, di neorem and S to solve prac he predomina he total num ents instructe verification, t	ant laboratory ber laboratory cesting or chee	Laborat rexperience y experience curs through a curl to engli to simplify tems in fluic	evel surfaces and find arc l systems surface neering applic y certain mult d mechanics an cory experienc type for this of s for the cours ed with the la udents have b Publisher : Ye	ength ations iple integrals nd EMF e details course/learning a boratory space oth received ear	ng activity ctivity ce and the sp			<u>-?</u> ?
Laboratory exper Lab type Number of labs Laboratory safety taught Laboratory safety examir Required text(s):	2 3 4 5 6 7 8 9 10 11 12 rience	Complete Construc Evaluate Evaluate Apply the Employ I Apply ve	e partial der t parametric double and surface inte e concepts o Divergence th ctorcalculus Specify t Specify t Are stude Is there y	ivative of fun equations of triple integra gral and unde f gradient, di neorem and S to solve prac he predomina he total num ents instructe verification, t	ant laboratory ber laboratory cesting or chee	Laborat rexperience y experience curs through a curl to engli to simplify tems in fluic	evel surfaces and find arc l systems surface neering applic y certain mult d mechanics an cory experienc type for this of s for the cours ed with the la udents have b	ength ations iple integrals nd EMF e details course/learning a boratory space oth received ear	ng activity ctivity ce and the sp			e?
Laboratory exper Lab type Number of labs Laboratory safety taught Laboratory safety examin Required text(s): (required texts only not	2 3 4 5 6 7 8 9 10 11 12 rience	Complete Construc Evaluate Evaluate Apply the Employ I Apply ve	e partial der t parametric double and surface inte e concepts o Divergence th ctorcalculus Specify t Specify t Are stude Is there y	ivative of fun equations of triple integra gral and unde f gradient, di neorem and S to solve prac he predomina he total num ents instructe verification, t	ant laboratory ber laboratory cesting or chee	Laborat rexperience y experience curs through a curl to engli to simplify tems in fluic	evel surfaces and find arc l systems surface neering applic y certain mult d mechanics an cory experienc type for this of s for the cours ed with the la udents have b Publisher : Ye	ength ations iple integrals nd EMF e details course/learning a boratory space oth received ear	ng activity ctivity ce and the sp			
Laboratory exper Lab type Number of labs Laboratory safety taught Laboratory safety examir Required text(s):	2 3 4 5 6 7 8 9 10 11 12 rience	Complete Construc Evaluate Evaluate Apply the Employ I Apply ve	e partial der t parametric double and surface inte e concepts o Divergence th ctorcalculus Specify t Specify t Are stude Is there y	ivative of fun equations of triple integra gral and unde f gradient, di neorem and S to solve prac he predomina he total num ents instructe verification, t	ant laboratory ber laboratory cesting or chee	Laborat rexperience y experience curs through a curl to engli to simplify tems in fluic	evel surfaces and find arc l systems surface neering applic y certain mult d mechanics an cory experienc type for this of s for the cours ed with the la udents have b Publisher : Ye	ength ations iple integrals nd EMF e details course/learning a boratory space oth received ear	ng activity ctivity ce and the sp			e?

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

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 Е В С F **A**+ Α-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

				Apper	ndix 6C - Cours	e Informatio	on Sheet						
Instructions:	add learning	g instructors,	outcomes, te	exts and labo	<u>e course.</u> Data ratory content WILL INVALIDA					his worksheet	. Macros are	provided to	
Course number:	APSC252												
Course title:	Thermodyna	amics and Hea	t Transfer										
Calendar web link:	http://www.c	alendar.ubc.c	a/okanagan/	courses.cfm?	go=name&code	e=APSC							
* Notes:													
* Provide explanatory n	otes on inconsi	istencies with	calendar inf	formation (if	applicable)								
CEAB course type	K-factor	Content	N	Nath Natural science			Complemen	tary studies	Franciscovi		Fasiasa	ving design	
Х	No	category &			Phys				Engineen	ng science	Engineer	ring design	
Compulsory Elective	AU %	elements		-	25	%			7	5%			
Compulsory group	AU Total	43		0	1	1	()		32		0	
CEAB graduate attribut	e 1	2	3	4	5	6	7	8	9	10	11	12	
content**	KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	
(content code):	D	D											
** Enter content level c	odes							-		-	-	-	
Content level code : b	.ank = not appl	icable; I = int	roduced (int	roductory); D	= developed (intermediat	e); A = applie	d (advanced)					
First row : Please list th													
Instructors		Family name	i i i i i i i i i i i i i i i i i i i		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	
	Kheirkhah			Sina			No	2017	>2023	None	PhD	Asst	
Other(s)													
		Acad	credit	Hr	s/wk	Number	r sections	Students/	supervisor Averag		e grade	Failure rate	
Course delivery and	outcomes:			Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)	
		3	.0	3.0 1.0 2 6 >50 64-60 21-30									
					ning outcome e								
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	2	-			ply the ideal g	-							
	3				, and the mec				-				
	4			-	e concepts of r		id irreversible	processes an	d entropy ge	neration			
Major learning	5	Apply th	e first and s	econd laws of	thermodynam	IICS							
outcomes:	6												
	7												
	8												
	9												
	10												
	11												
	12												
Laboratory exp	erience					Laborat	ory experienc	e details					
Lab type			Specify	the predomin	ant laboratory	experience	type for this	course/learni	ing activity				
Number of labs			Specify	the total num	ber laboratory	experience	s for the cour	se/learning a	ctivity				
Laboratory safety taugh	nt?		Are stud	lents instruct	ed in safety iss	ues associat	ed with the la	boratory spa	ce and the sp	pecific learnir	ng experience	e?	
Laboratory safety exam	ined ?		Is there	verification,	testing or chec	king that st	udents have b	oth received	and understo	ood safety iss	ues?		
							Publisher: Ye	ear					
		B 11	C. C		tals of Thormo		1/1 2017						

Required text(s):	1	Borgnakke & Sonntag : Fundamentals of Thermodynamics : Wiley : 2017
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

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				Appen	dix 6C - Cours	se Informatio	on Sheet					
Instructions:	add learning	g instructors, o	outcomes, te	exts and labor	atory content		idate input is s ORKSHEET AN			his worksheet	. Macros are	provided to
Course number:	APSC253											
Course title:	Fluid Mecha	nics I										
Calendar web link:	http://www.c	alendar.ubc.ca	a/okanagan/c	courses.cfm?	go=name&cod	le=APSC						
* Notes:												
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CEAB course type	K-factor	Content	M	ath	Natural	science	Complemen	itary studies	Engineering science		Engineer	ring design
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content**	KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL
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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)												
		A		Hrs/wk N		Numbe	r sections	Students/supervisor		Averag	e grade	Failure rate
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Laboratory exper	ience					Laborat	ory experienc	e details				
Lab type		Hands-on	Specify t	he predomina	ant laboratory	/ experience	type for this	course/learni	ing activity			
Number of labs		5					es for the cour		-			
Laboratory safety taught		Yes					ed with the la		-			e?
Laboratory safety examin	ned ?	No	Is there	verification, 1			udents have b		and understo	ood safety issu	ues?	
Required text(s):	1	Cengel &	: Cimbala : F	luid Mechanie			Publisher : Ye		Hill: 2017			
(required texts only not	· ·					F F	,		-			
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Course number:	APSC254											
Course title:	Instrumenta	ation and Data	Analysis									
Calendar web link:	http://www.c	calendar.ubc.ca	a/okanagan/o	courses.cfm?	go=name&cod	e=APSC						
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Instructors		Family name			First name(s)		CC member	Hire date	date	L. status	Degree	Acad rank
Course-contact	Swart			Nicolas								
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Laboratory safety exar	mined ?	No	Is there	verification,	testing or cheo				and underst	ood safety iss	ues?	
		Author : Title : Publisher : Year										

Required text(s):	1	Diez et al. : OpenIntro Statistics : openintro.org : 2016
(required texts only not	2	Morris et al. : Measurement and Instrumentation: Elsevier : 2012
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Course numb	er:	APSC255											
Course title:		Electric Circ	uits and Powe	er									
Calendar we	b link:	http://www.ca	alendar.ubc.ca	a/okanagan/o	ourses.cfm?	go=name&cod	le=APSC						
* Notes:													
* Provide exp	olanatory not	es on inconsis	stencies with	calendar inf	ormation (if a	applicable)							
CEAB cou	urse type	K-factor	Content	М	ath	Natural	science	Complemen	tary studies	En ada a sud		F acility of the second	·
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CEAB gradua	te attribute	1	2	3	4	5	6	7	8	9	10	11	12
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		most approp				•	`	<u> </u>	<u> </u>				
Instru	uctors		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
Foulds					lan			No	2014	>2023	PEng	PhD	Asst
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Laboratory s	afety examin	ied ?	No	Is there	verification, t	-	-	udents have b		and understo	od safety issu	ues?	
						Au	thor : Title :	Publisher: Ye	ear				

Required text(s):	1	Alexander & Sadiku : Fundamentals of Electric Circuits 5th Ed. : Pearson : 2013
(required texts only not	2	
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Required text(s):	1	Callister & Rethwisch : Materials Science and Engineering An Introduction : Wiely : 2013
(required texts only not	2	
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0 70 Hands-on 1 12 Simulation Yes No Problem Project Demo

					Apper	ndix 6C - Cours	e Informatio	n Sheet					
Instructions:		add learning	g instructors,	outcomes, te	exts and labo	<u>e course.</u> Data ratory content WILL INVALIDA	•	·			his worksheet	. Macros are	provided to
Course numbe	er:	APSC260											
Course title:		Mechanics o	f Materials I										
Calendar web	link:	http://www.c	alendar.ubc.ca	a/okanagan/o	courses.cfm?	go=name&cod	e=APSC						
* Notes:				-									
* Provide expl	lanatory not	es on inconsi	stencies with	calendar inf	ormation (if a	applicable)							
CEAB cour	rse type	K-factor	Content	М	ath	Natural	science	Complemen	tary studies				
Х		No	category &							Engineeri	ng science	Engineering design	
	Elective	AU %	elements							7	5%	2	25%
Compulsory	group	AU Total	43) 0			()		32		11
CEAB graduat	e attribute	1	2	3	4	5	6	7	8	9	10	11	12
content**		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL
(content code	e):	D	D										
** Enter conte	ent level coo	les											
Content level	code : bla	nk = not appl	icable; I = int	oduced (intr	roductory); D	= developed (intermediat	e); A = applie	d (advanced)				
First row : Ple			· ·			•			,				
Instruc			Family name			First name(s)		CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank
Course-c	contact	Liu			Jian			No	2017	>2023	EIT	PhD	Asst
Other(s)													
					Hrs	s/wk	Number	sections	Students/	supervisor	Averag	e grade	Failure rate
Course de	elivery and o	outcomes:	Acad	credit	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)
			3	.0	3.0	1.0	2	9		20-50	69-65		6-10
					Learn	ning outcome e	xpectation f	or lecture and	d/or lab expe	erience	•		
		1	Calculat	e the forces	and reactions	s in structural	members usi	ing principles	of static equ	ilibrium			
		2	Use Hool	ke's law to so	olve statically	y determinate	and statical	ly indetermina	ate systems				
		3	Use Moh	's circle to t	ransform gen	eral stress sta	tes and iden	tify principal	stresses				
		4	Calculat	e the stresse	s and strains	in thin-walled	pressure ve	ssels					
Major le	earning	5	Calculat	e the stresse	s and deform	nations in prism	natic beams	under symme	tric, eccentri	c, and asymr	netric bendin	g	
outcor	-	6	Derive e	quations for	bending mon	nent, shear for	ce, and defl	ection for sta	tically deterr	minate prism	atic beams		
		7		-		to calculate d		-		ismatic beam	IS		
		8	Calculat	e the stresse	s and deflect	ions of circula	r shafts subj	ected to torsi	on				
		9											
		10											
		11											
		12											
Labor	atory exper	ience					Laborat	ory experienc	e details				
Lab type				Specify t	he predomin	ant laboratory	experience	type for this	course/learni	ing activity			
Number of lat	bs			Specify the total number laboratory experiences for the course/learning activity									
Laboratory sa	fety taught	?				ed in safety iss	-		_	-	pecific learnir	ng experience	e?
Laboratory sa						testing or chec				-			
			-			-	-	Publisher : Ye					
		-			olf G Marura								

Required text(s):	1	Beer, Johnston, DeWolf, & Mazurek : Mechanics of Materials : McGraw-Hill : 2014
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

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

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

				Apper	ndix 6C - Cours	e Informatio	on Sheet					
Instructions:	add learnin	g instructors,	outcomes, te	exts and labo	<u>e course.</u> Data ratory content. WILL INVALIDA					his worksheet	. Macros are	provided to
Course number:	ENGR305											
Course title:	Engineering	Economic Ana	alysis									
Calendar web link:	http://www.c	alendar.ubc.ca	a/okanagan/o	courses.cfm?	go=name&code	e=ENGR						
* Notes:												
* Provide explanatory	notes on incons	istencies with	calendar inf	ormation (if a	applicable)							
CEAB course type	K-factor	Content	M	ath	Natural	science	Complemen	tary studies	F actor and		E	
Х	No	category &					EngEcon		Engineeri	ing science	Engineer	ring design
Elective	e AU %	elements		•			10	0%				
Compulsory group	AU Total	37		0	0		3	37		0		0
CEAB graduate attribu	te 1	2	3	4	5	6	7	8	9	10	11	12
content**	KB	PA	lnv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL
(content code):	А							D			D	
** Enter content level	codes											
Content level code : b	lank = not appl	licable; I = int	roduced (inti	roductory); D	= developed (intermediat	e); A = applie	d (advanced)				
First row : Please list t	••	· · · · · · · · · · · · · · · · · · ·						,				
Instructors		Family name	I.		First name(s)		CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank
Course-contact	Brereton	ereton					No	2017	2018	PEng	PhD	Jr Lec
Other(s)	Other(s)											
			1.4	Hr	s/wk	Number	r sections	Students/	supervisor	Averag	e grade	Failure rate
Course delivery an	d outcomes:	Acad	credit	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)
		3	.0	3.0		2				74-70		6-10
					ing outcome e					-		
	1			-	gineering proje	_				-		
	2				neering projec				-		approaches	
	3				nine if and whe		=		-			
	4				es: types, gove						analyses etc.	
Major learning	5				ney and perform			-				
outcomes:	6				sector project	ts and do a s	ocial benefit-	cost analysis	(SCBA) of suc	ch projects		
	7		•	on of an asse								
	8				and inflation o							
	9			-	and risk in en	• • •	•					
	10	Demonst	rate ethical	behaviour in	cluding adhere	nce to UBC	policies, Cour	se Syllabus, a	and APEGBC (Code of Ethics	5	
	11											
	12											
Laboratory exp	berience					Laborat	ory experienc	e details				
Lab type			Specify t	he predomin	ant laboratory	experience	type for this	course/learni	ing activity			
Number of labs			Specify t	he total num	ber laboratory	experience	s for the cour	se/learning a	ctivity			
Laboratory safety taug	ht ?		Are stud	ents instructe	ed in safety iss	ues associat	ed with the la	boratory spa	ce and the sp	pecific learnir	ng experience	e?
Laboratory safety exar	nined ?		Is there	verification,	testing or chec	king that st	udents have b	oth received	and underst	ood safety iss	ues?	
					Aut	hor : Title :	Publisher: Y	ear				

Required text(s):	1	
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

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

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

					Appen	ndix 6C - Cours	e Informatio	n Sheet					
Instructions:		add learning	instructors, o	outcomes, te	xts and labor	<u>e course.</u> Data ratory content WILL INVALID	•				nis worksheet	. Macros are	provided to
Course numb	per:	ENGR320											
Course title:		Electromech	anical Device	S									
Calendar we	b link:	http://www.ca	alendar.ubc.ca	a/okanagan/c	ourses.cfm?	go=name&cod	e=ENGR						
* Notes:													
* Provide exp	planatory not	es on inconsis	stencies with	calendar info	ormation (if a	applicable)							
CEAB cou	urse type	K-factor	Content	M	ath	Natural	science	Complemen	tary studies	Enginoori	ng science	Engineer	ing design
Х		No	category &							Lingineeri	ing science	Linginieer	ing design
Compulsory	Elective	AU %	elements							7	5%	2	5%
	group	AU Total	49		0	()	()		37	ŕ	12
CEAB gradua	te attribute	1	2	3	4	5	6	7	8	9	10	11	12
content**		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL
(content cod	le):	D	D		D								
	ent level coo												
	ontent level code : blank = not applicable; I = introduced (introductory); D = developed (intermediate); A = applied (advanced) irst row : Please list the most appropriate instructor to act as course contact												
First row : Pl	lease list the	most approp	riate instructo	or to act as c	ourse contac	t		•			1	1	•
date Degree								Acad rank					
Course-	contact	Eberle			Wilson			No	<2011	>2023	PEng	PhD	Assoc
Othe	er(s)												
			Acad	credit	Hrs	s/wk	Number	sections	Students/	supervisor	_	e grade	Failure rate
Course d	elivery and c	outcomes:			Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)
			3.	.0	3.0	2.0	1	8	20-50	>50	79-75		1-2
				gnetic circui		ing outcome e	expectation f	or lecture and	d/or lab expe	rience			
		1		-	•	material and r	magnetic pro	portios in ma	netic circuit	c			
		2	-		cuit problem		nagnetic pro	percies in ma		3			
		3		machine pro	-	3							
		4			achine proble	ams							
=	learning	5	-		ine problems								
outco	omes:	6			nple electric								
		7	Design a			motor							
8													
		9											
		10											
		11											
Laba	ratory ovpor	12					Laborat		o dotaila				
	ratory exper	ience	Hands or	Specify	ha prodomin	ant laboratory		ory experienc		ng activity			
Lab type Number of la	ahs		Hands-on 5			ber laboratory	-						
Laboratory s		?	Yes			ed in safety iss					ecific learnin	o experience	27
Laboratory s			Yes			testing or chee							
	and by examine		103					Publisher : Ye					

Required text(s):	1	
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

0.5 <5 5-10 10-20 20-50 >50 12.0 0 15 >90
 89-85
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 59-55
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 49-40
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 Ε В С F **A**+ **A**-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

					Appen	dix 6C - Cours	e Informatio	n Sheet					
Instructions:		add learning	instructors, o	outcomes, te	xts and labor	<u>course.</u> Data atory content VILL INVALIDA	•				nis worksheet	. Macros are	provided to
Course number:	:	ENGR376											
Course title:		Materials Sci	ence II										
Calendar web li	ink:	http://www.ca	alendar.ubc.ca	/okanagan/c	ourses.cfm?c	o=name&cod	e=ENGR						
* Notes:					-								
* Provide explar	natory not	es on inconsis	stencies with	calendar info	ormation (if a	pplicable)							
CEAB course	e type	K-factor	Content	Ma	ath	Natural	science	Complemen	tary studies				
Х		No	category &			Phys	Chem	-		Engineeri	ng science	Engineer	ing design
Commuter E	Elective	AU %	elements			25	5%			7	5%		
Compulsory	group	AU Total	37		0	9)	()	2	28		0
CEAB graduate a	attribute	1	2	3	4	5	6	7	8	9	10	11	12
content**		KB	PA	lnv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL
(content code):		D				Α		D					
** Enter content	t level cod	es											
Content level co	ode: blar	nk = not appli	cable; I = intr	oduced (intr	oductory); D	= developed (intermediate	e); A = applied	d (advanced)				
First row : Pleas	se list the	most appropr	riate instructo	or to act as c	ourse contact	t							
Instructo	ors		Family name			First name(s)		CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank
Course-con	tact Taheri				Ray			No	<2011	>2023	PEng	PhD	Sr Lec
Other(s	s)												
			Acad	rodit	Hrs	s/wk	Number	sections	Students/	supervisor	Averag	e grade	Failure rate
Course deliv	very and o	utcomes:	Acad		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)
			3.	0	3.0		2				74-70		3-5
				į į		ing outcome e							
		1		•	•	omena in solid				• • •			
		2		-		C-Fe phase d	-	-		ations of eng	ineering alloy	S	
		3	-		-	ccomplish cert			-				
		4		-		ew on selecte	-			-	-		
Major lear	-	5				nuous-Cooling		. ,	a Time-Temp	erature-Tran	sformation (I	II) diagrams	5
outcome	es:	6	Dissemin	ate knowled	ge on a speci	fic topic by pr	esenting to p	beers					
		7											
		8											
		9											
		10											
		11											
		12							1				
	ory experi	ence		6 16				ory experience					
Lab type						ant laboratory	•						
Number of labsSpecify the total number laboratory experiences for the course/learning activiLaboratory safety taught ?Are students instructed in safety issues associated with the laboratory space and						-		· ·	2				
										•		<u> </u>	::
Laboratory safe	ty examin	eu :		is there \	vernication, t	esting or cheo	-	Publisher : Ye		and understo	ou safety issi		

Required text(s):	1	Callister & Rethwisch : Materials Science and Engineering An Introduction : Wiley : 2013
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

0.5 <5 5-10 10-20 20-50 >50 12.0 0 15 >90
 89-85
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 64-60
 59-55
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 49-40
 <40</th>
 Ε В С F **A**+ Α-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

					Appen	dix 6C - Cours	e Informatio	n Sheet					
Instructions:		add learning	instructors, o	outcomes, te	xts and labor	<u>e course.</u> Data ratory content WILL INVALIDA	•				nis worksheet	. Macros are	provided to
Course numb	er:	ENGR381											
Course title:		Kinematics a	nd Dynamics	of Machinery	/								
Calendar we	b link:		-	-		go=name&cod	e=ENGR						
* Notes:				-		-							
* Provide exp	olanatory not	es on inconsis	stencies with	calendar inf	ormation (if a	applicable)							
CEAB cou	urse type	K-factor	Content	M	ath	Natural	science	Complemen	tary studies	F		F	• • • • •
Х		No	category &							Engineeri	ng science	Engineer	ing design
Compulsory	Elective	AU %	elements							6	0%	4	0%
Compulsory	group	AU Total	43		0	()	()	2	26	1	17
CEAB gradua	te attribute	1	2	3	4	5	6	7	8	9	10	11	12
content**		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL
(content cod	e):		А		А	А		А					А
** Enter cont	ent level coo	les											
			-			= developed	(intermediate	e); A = applied	d (advanced)				
First row : Pl	lease list the	most approp	riate instructo	or to act as c	ourse contac	t							
Instru	uctors		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
Othe	er(s)												
			Acad	credit	Hrs	s/wk	Number	sections	Students/	supervisor	Averag	e grade	Failure rate
Course d	elivery and o	outcomes:			Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)
			3	.0	3.0	1.0	1	3		20-50	74-70		6-10
			Applyme	the dynamic		ing outcome e nechanisms ar			1/or lab expe	rience			
		1	-	-		ended engine	-						
		2	-		-	mic behavior of			ery and valid	ato results			
		3			ineering repo			is and machine					
		4		-	• •	the art of exis	ting solutions	to engineeri	ng problems				
=	earning	5	independ	iencey seady			ting solution.						
outco	omes:	6											
		-											
		8											
		9 10											
		10											
		11											
Labo	ratory exper						Laborati	ory experience	e details				
Lab type	ratory coper			Specify t	he predomin	ant laboratory				ng activity			
Number of la	abs					ber laboratory	-						
Laboratory s		?				ed in safety iss	•				ecific learnin	g experience	?
Laboratory s						testing or che				-			
	-		1		, , ,	-	-	Publisher : Ye			.,		

Required text(s):	1	Norton : Design of Machinery, 5th Ed. : McGrawHill
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

0.5 <5 5-10 10-20 20-50 >50 12.0 0 15 >90
 89-85
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 Ε В С F **A**+ Α-B+ C+ D+ D Α 3-5 6-10 11-15 16-20 21-30 >30 0 1-2 <1 0 85

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

					Apper	ndix 6C - Cours	e Informatio	on Sheet					
Instructions:		add learning	instructors,	outcomes, te	xts and labo	<u>e course.</u> Data ratory content WILL INVALIDA		·			his worksheet	. Macros are	provided to
Course number:		ENGR387											
Course title:		Vibration of	Mechanical S	/stems									
Calendar web linl	nk:	http://www.ca	alendar.ubc.ca	a/okanagan/c	ourses.cfm?	go=name&cod	e=ENGR						
* Notes:													
* Provide explana	atory not	es on inconsi	stencies with	calendar info	ormation (if a	applicable)							
CEAB course t	type	K-factor	Content	Ma	ath	Natural	science	Complemen	tary studies	Franciscovi		Fasiasa	ring design
Х		No	category &	DiffCalc	DiffEq	Phys				Engineen	ing science	Engineer	ring design
Compulsory Ele	lective	AU %	elements	3	0%	30	1%			4	0%		
Compulsory g	group	AU Total	43	1	3	1	3	()		17		0
CEAB graduate at	ttribute	1	2	3	4	5	6	7	8	9	10	11	12
content**		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL
(content code):		А			Α	А							
** Enter content l	level cod	es							-			-	-
Content level cod	de : blar	nk = not appli	cable; I = int	roduced (intr	oductory); D	= developed (intermediat	e); A = applie	d (advanced)				
First row : Please													
Instructor	rs		Family name			First name(s)		CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank
Course-cont	tact	Mohammadi			Hadi			No	2013	>2023	PEng	PhD	Asst
Other(s))												
			Acad	crodit	Hrs	s/wk	Number	r sections	Students/	supervisor	Averag	ge grade	Failure rate
Course delive	ery and o	utcomes:	Acau		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)
			3	.0	3.0	1.0	1			5-10	69-65		1-2
						ning outcome e			d/or lab expe	erience			
		1				the design an		•				· · · ·	
		2	-			ve design proc	-	-	x problems s	ucn as Autom	IODILE Suspen	tion System	
		3				d on needs and							
		4				pen-ended pro				-	on process		
Major learn	ning	5		-		orks or other (-			
outcomes	s:	6	-	-	-	d learning pre			Appreciate	the value of	diversity on a	team	
		7	Commun	icate effectiv	vely and con	structively wit	h other tean	n members					
		8											
		9											
		10											
		11											
		12											
Laborator	ory experi	ence						ory experienc					
Lab type					-	ant laboratory	-						
Number of labs						iber laboratory	-		-	-			
Laboratory safety	y taught	?		Are stude	ents instructe	ed in safety iss	ues associat	ed with the la	boratory spa	ce and the sp	pecific learnin	ng experience	e?
Laboratory safety	y examin	ed ?		Is there v	verification,	testing or cheo	-			and understo	ood safety iss	ues?	
						Aut	thor : Title :	Publisher: Ye	ear				

Required text(s):	1	Inman : Engineering Vibration : Pearson : 2013
(required texts only not	2	
a reaading list)	3	
	4	

10 6 8 85 8 85 8 85 Yes No Χ Μ DiffCali DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats Chem Earth Life Phys EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics **0**% 100% 8 180 1 D Α 2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 None PEng EIT LL ing ingJr PhD MPhil MSc MEng MA DPhil DSc BSc BEng BA Other Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

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

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

		1			Appen	dix 6C - Cours	se Informatio	on Sheet																
Instructions:		add learning	instructors, o	outcomes, te	y and elective exts and labora OTHER WAY W	atory content.					s worksheet.	Macros are p	provided to					Val	idation d	lata				
Course numb	ber:	ENGR413												6	10									
Course title:	:	Law and Ethi	ics for Engine	ers										8	85									
Calendar we	eb link:	http://www.ca	alendar.ubc.ca	/okanagan/o	courses.cfm?ge	o=name&code	e=ENGR							8	85									
* Notes:														8	85									
* Provide exp	planatory not	es on inconsis	stencies with o	calendar inf	ormation (if ap	pplicable)								Yes	No									
	urse type	K-factor	Content	٨	Nath	Natural	science	Complemen PEthics	tary studies	Engineeri	ng science	Engineer	ing design		X	M					C			
Х		No	category &										LinAlg	NMeths	Prob	Stats								
Compulsory	Elective	AU %	elements				0	-		Earth		Phys		0.446	DFU :									
	group	AU Total	37		0	0	Engeco	EnvSu	s Htts	HumSS	Impact	: OWCorr	PETNICS											
CEAB gradua content**	te attribute		2	3	4	12	0%	100%																
content ^{***} (content cod	le).	KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	8	400									
•	tent level coc								A	A	A			0	180	D	Δ							
			cable: I - intr	oduced (int	roductory); D =	- developed (i	intermediate). V - applied	(advanced)						1	U	A							
					course contact		incerniculate	.), A – applied	(advanced)					2	36									
1 11 50 1 600 1 1		1								Est. ret.		Highest		2	50									
Instru	uctors		Family name			First name(s)		CC member		date	L. status	Degree	Acad rank	2	36									
Course	-contact	Swart			Nicholas			No	<2011		None	PhD	Adj		2012	2013	2014		2016					
														2017	2018	2019	2020			>2023				
														PEng		ing	ingJr		None					
														DPhil		PhD			MEng			BEng	BA	Other
														Full	Assoc	Asst	Emer	Adj	Sr Lec	Jr Lec	Sess	Other		
	<i>.</i> .													Yes	No									
Oth	er(s)																							
					-																			
					Hrc	s/wk	Numbo	r sections	Students/	supervisor	Averag	e grade	Failure rate	0.5	12.0	0	15	<5	5-10	10-20	20-50	>50		
Course	delivery and c	outcomes:	Acad	credit	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	Averag %	Letter	(%)	>90					69-65				10-10	<40
Course C		accomes.	L	0	Lec	Lab/tut	Lec	Lab/ tut	Lau	Tut	/0	Letter	(/0)	- 70	07-0J		- 19-15						+3-40	70

Hands-on Simulation Problem Project Demo Other

		3.0	3.0		1				89-85		0	A+	Α
					expectation f	or lecture and	d/or lab expe	rience				0	<1
	1	Apply ethical theories	s to real-world	d case studie	S							0	85
	2	Evaluate the fundame	ental ethical o	consideration	s associated v	vith professio	nal engineeri	ng practice					
	3	Evaluate the role of t	he profession	al engineer ii	n society								
	4	Evaluate legal princip			, I 2		ual property	and business	structures				
Major learning	5	Analyze the social and	d environmen	tal aspects o	t engineering								
outcomes:	6	Understand the releva	ance and utili	ty of law as i	it pertains to	engineering							
	7												
	8												
	9												
	10												
	11												
	12												
Laboratory experi	ence	• •			Laborate	ory experienc	e details						
Lab type		Specify t	he predomina	nt laboratory	/ experience t	ype for this c	ourse/learnir	ng activity				0	70
Number of labs		Specify t	he total numb	per laboratory	y experiences	for the cours	e/learning ac	tivity				1	12
Laboratory safety taught ?		Are stude	ents instructe	d in safety is:	sues associate	ed with the la	boratory spac	e and the spe	ecific learning	g experience?	?	Yes	No
Laboratory safety examine	ed ?	ls there v	verification, to	esting or che	cking that stu	dents have bo	oth received a	and understoo	od safety issu	es?			
				Au	uthor: Title:	Publisher:Ye	ear						
Required text(s):	1	Andrews : Canadian P	rof. Eng. and	Geoscience	: Nelson : 201	4						0	85
(required texts only not	2	Samuels : Practical La	aw and Archit	ecture, Eng.	And Geoscien	ce:Pearson	: 2016						
a reaading list)	3												
	4												
												4	

A- B+ B C+ C D+ D E F 1-2 3-5 6-10 11-15 16-20 21-30 >30

		-			Apper	dix 6C - Cour	se Informatio	on Sheet						
nstructions:		add learning	instructors, c	outcomes, te	exts and labor	atory content	•	date input is st RKSHEET AND			s worksheet.	Macros are p	provided to	Validation data
Course numbe	er:	ENGR439												6 10
Course title:			ng Processes I											- 8 ₈₅
alendar web			-		courses.cfm?g	o=name&code	e=MANF							8 85
Notes:														- 8 85
Provide expl	lanatory not	tes on inconsis	stencies with o	calendar inf	ormation (if a	pplicable)								Yes No
CEAB cou	irse type	K-factor	Content	N	Nath	Natural	science	Complemen	tary studies	E	ng science	En ele en		X M
Х			category &							ing design	DiffCalc DiffEq Discrete IntCalc LinAlg NMeths Prob Stats			
	Elective	AU %	elements		-					0%	Chem Earth Life Phys			
1 2		AU Total	43		0		0	()	9	EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics			
EAB graduat	e attribute	1	2	3	4	5	6	7	8	11	12	0% 100%		
ontent**		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	
content code	'													8 180
* Enter conte		des for												
														I D A
							intermediate); A = applied	(advanced)					
					roductory); D =		intermediate); A = applied	(advanced)				1	I D A 2 36
	ease list the	most appropr		or to act as c); A = applied CC member		Est. ret. date	L. status	Highest Degree	Acad rank	2 36
irst row : Ple	ease list the octors	most appropr	riate instructo	or to act as c							L. status	-	Acad rank	2 36 2 36 <2011 2012 2013 2014 2015 2016 2017
irst row : Ple Instru	ease list the octors	most appropr	riate instructo	or to act as c							L. status	-	Acad rank	2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023
irst row : Ple Instru	ease list the octors	most appropr	riate instructo	or to act as c							L. status	-	Acad rank	2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 PEng EIT ing ingJr LL None
irst row : Ple	ease list the octors	most appropr	riate instructo	or to act as c							L. status	-	Acad rank	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 C
irst row : Ple	ease list the octors	most appropr	riate instructo	or to act as c							L. status	-	Acad rank	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 C Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
irst row : Ple Instru Course-c	ease list the ictors contact	most appropr	riate instructo	or to act as c							L. status	-	Acad rank	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 C
irst row : Ple Instru	ease list the ictors contact	most appropr	riate instructo	or to act as c							L. status	-	Acad rank	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 C Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
irst row : Ple Instru Course-c	ease list the ictors contact	most appropr	riate instructo	or to act as c							L. status	-	Acad rank	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 C Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
rst row : Ple Instru Course-c	ease list the ictors contact	most appropr	riate instructo	or to act as c							L. status	-	Acad rank	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 C Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
rst row : Ple Instru Course-c	ease list the ictors contact	most appropr	riate instructo	or to act as c							L. status	-	Acad rank	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 C Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
irst row : Ple Instru Course-c	ease list the ictors contact	most appropr	riate instructo	or to act as c							L. status	-	Acad rank	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 C Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
irst row : Ple Instru Course-c	ease list the ictors contact	most appropr	riate instructo	or to act as c	course contact	First name(s)	CC member	Hire date	date		Degree		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 C Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No
irst row : Ple Instru Course-c Othe	ease list the ictors contact	most appropr	riate instructo Family name	or to act as c	course contact)			date		-	Acad rank	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 C Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

		3.0	3.0	1.0								A+	Α	A-	B+	В	C+	•	D+ D	E	F
			Lear	ing outcome	expectation f	or lecture an	nd/or lab exp	erience				0	<1	1-2	3-5	6-10	11-15	16-20 21	-30 >30		
	1											0	85								
	2																				
	3																				
	4																				
Major learning	5																				
outcomes:	6																				
	7																				
	8																				
	9																				
	10																				
	11																				
	12																				
Laboratory exper	ience				Laborat	ory experience	ce details														
Lab type		Speci	fy the predomination	ant laboratory	vexperience t	type for this o	course/learni	ng activity				0	70	Hands-c	n						
Number of labs		Speci	fy the total num	ber laborator	y experiences	for the cour	se/learning a	ctivity				1	12	Simulati	ion						
Laboratory safety taught	?	Are st	udents instructe	ed in safety is	sues associate	ed with the la	aboratory spa	ce and the sp	pecific learnin	g experience	?	Yes	No	Problem	า						
Laboratory safety examin	ied ?	ls the	re verification,	esting or che	cking that stu	dents have b	oth received	and understo	ood safety issu	ues?				Project							
				Au	uthor : Title :	Publisher: Y	'ear							Demo							
Required text(s):	1											0	85	Other							
(required texts only not	2																				
a reaading list)	3																				
	4																				

				Apper	ndix 6C - Cour	se Informati	on Sheet															
Instructions:	add learning	g instructors, c	outcomes, te	exts and labor	atory content		date input is s DRKSHEET AND			is worksheet.	Macros are p	rovided to					Validatio	n data				
Course number:	ENGR476												6	10								
Course title:	Mechanics o	of Materials II											8	85								
Calendar web link:	http://www.ca	alendar.ubc.ca	a/okanagan/o	courses.cfm?g	o=name&cod	e=ENGR							8	85								
* Notes:													8	85								
* Provide explanatory not	tes on inconsis	stencies with o	calendar inf	ormation (if a	pplicable)								Yes	No								
CEAB course type X	K-factor No	Content category &	٨	Nath	Natura	l science	Complemen	ntary studies	Engineeri	ng science	Engineer	ing design	DiffCalo	X DiffEq	M Discrete	IntCalc Li	inAlg NMet	hs Prob	Stats			
Flective	AU %	elements					0%		Earth		Phys											
Compulsory group	AU Total	37		1	EngEco	EnvSus			npact: OWC	orr PEthics	S											
CEAB graduate attribute	1	2	3	4	12	0%	100%															
content**	KB	PA	lnv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	0%	100%								
(content code):	А			Α									8	180								
** Enter content level co	des							-			-			1	D	Α						
Content level code : bla	nk = not appli	icable; I = intr	oduced (int	roductory); D =	= developed (intermediate	e); A = applied	(advanced)														
First row : Please list the	e most approp	riate instructo	or to act as o	course contact	:								2	36								
Instructors		Family name			First name(s)	CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	2	36								
Course-contact													<2011	2012	2013	2014 20	015 2016	2017				
													2017	2018	2019	2020 20	021 2022	>2023				
													PEng	EIT	ing	ingJr	LL None					
													DPhil	DSc	PhD	MPhil	MSc MEn	g MA	BSc	BEng	BA	Other
													Full	Assoc	Asst	Emer	Adj Sr Le	ec Jr Lec	Sess	Other		
													Yes	No								
Other(s)																						
													1									
		Acad	credit	Hrs	s/wk	Numbe	er sections	Students/	supervisor	Averag	ge grade	Failure rate	0.5	12.0	0	15	<5 5-10	0 10-20	20-50	>50		
Course delivery and	outcomes:	Acdu	creat	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)	>90	89-85	84-80	79-75 7	74-70 69-6	5 64-60	59-55	54-50	49-40	<40
		2	0	2.0						70 75		4.2	1				D	~		•	-	-

B+ B C+ C D+ D E F

3-5 6-10 11-15 16-20 21-30 >30

		3.0	3.0		1				79-75		1-2	A+	Α	A-	B
			Learn	ing outcome	expectation f	or lecture and	/or lab expe	erience				0	<1	1-2	3-
	1	Understand the scient	-									0	85		
	2	Identify and solve pro						-							
	3	Formulate design para	ameters, eval	luate concept	s, establish s	pecifications f	or a mechar	nical compone	ent design						
	4]			
Major learning	5														
outcomes:	6														
	7														
	8														
	9														
	10														
	11														
	12														
Laboratory experi	ience					ory experience									
Lab type		Specify th	ne predomina	Int laboratory	experience	type for this co	ourse/learni	ng activity				0	70	Hands-o	ึ่งท
Number of labs		Specify th	ne total numb	per laboratory	experiences	for the course	e/learning a	ctivity				1	12	Simulat	ion
Laboratory safety taught	?	Are stude	nts instructe	d in safety iss	sues associate	ed with the lat	oratory spa	ce and the sp	ecific learnin	ig experience	2	Yes	No	Problen	a
Laboratory safety examine	ed ?	ls there v	erification, t	esting or cheo	cking that stu	idents have bo	th received	and understo	od safety issu	ues?				Project	
						Publisher : Ye	ar							Demo	
Required text(s):	1	Beer et al. : Mechanic	s of Material	s, 6th Ed. : M	cGraw-Hill:	2012						0	85	Other	
(required texts only not	2														
a reaading list)	3														
	4	I													

	-			Appen	dix 6C - Cours	se Informatio	on Sheet						
Instructions:	add learning	instructors, o	outcomes, te	exts and labora	atory content		date input is s RKSHEET AND			is worksheet.	Macros are p	rovided to	Validation data
Course number:	MANF230												6 10
Course title:	Manufacturir	ng Engineering	g Laboratory										8 85
Calendar web link:	http://www.ca	alendar.ubc.ca	/okanagan/c	ourses.cfm?g	o=name&code	e=MANF							8 85
* Notes:													8 85
* Provide explanatory not	tes on inconsis	stencies with o	calendar info	ormation (if a	oplicable)								Yes No
CEAB course type	K-factor	Content	Ν	lath	Natural	science	Complemen	tary studies	Fuerine entit		Fueringen	ing design	X M
Х	No	category &							Engineeri	Engineer	ing design	DiffCalc DiffEq Discrete IntCalc LinAlg NMeths Prob Stats	
Compulsory Elective	AU %	elements		-					7!	5%	Chem Earth Life Phys		
Compulsory group	AU Total	47		0		0		0	3	2	EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics		
CEAB graduate attribute	1	2	3	4	5	6	7	8	9	12	0% 100%		
content**	KB	PA	lnv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Econ.	LL	0% 100%	
(content code):													8 180
** Enter content level co	des for												I D A
Content level code : bla	nk = not appli	cable; I = intro	oduced (intr	oductory); D =	developed (intermediate	e); A = applied	(advanced)					
First row : Please list the	most appropr	riate instructo	r to act as c	ourse contact									2 36
Instructors		Family name			First name(s))	CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	2 36
Course-contact	Iqbal			Hassan									<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
Other(s)													
]
		Acad o	crodit	Hrs	/wk	Numbe	r sections	Students/	supervisor	Averag	e grade	Failure rate	0.5 12.0 0 15 < ⁵ 5-10 10-20 20-50 >50
Course delivery and	outcomest	ACadio	lieun	100	Lab/tut		Lab/tut	Lab	Tut	0/	Lottor	(%)	>00 80 85 84 80 70 75 74 70 60 65 64 60 59 55 54 50 40 40 < 40

 Course delivery and outcomes:
 Acad Credit
 Lec
 Lab/tut
 Lab
 Tut
 %
 Letter
 %
 >90
 89-85
 84-80
 79-75
 74-70
 69-65
 64-60
 59-55
 54-50
 49-40
 <40</th>

		4.0	1.0	2.0								A+	Α	A-	B+	В	C+	•	D+ D	E	F
			Lear	ing outcome	expectation f	or lecture ar	nd/or lab exp	erience				0	<1	1-2	3-5	6-10	11-15	16-20 21	-30 >30		
	1											0	85								
	2																				
	3																				
	4																				
Major learning	5											1									
outcomes:	6																				
	7																				
	8																				
	9																				
	10																				
	11																				
	12																				
Laboratory exper	ience				Laborat	ory experien	ce details														
Lab type		Specify	y the predomination	ant laboratory	vexperience	type for this	course/learn ⁻	ng activity				0	70	Hands-c	on						
Number of labs		Specify	y the total num	ber laborator	y experiences	for the cour	se/learning a	ctivity				1	12	Simulati	ion						
Laboratory safety taught	?	Are stu	udents instructe	ed in safety is	sues associate	ed with the la	aboratory spa	ce and the sp	pecific learnin	ng experience	e?	Yes	No	Problem	า						
Laboratory safety examin	ed ?	ls ther	e verification,	esting or che	cking that stu	idents have b	oth received	and understo	ood safety issu	ues?				Project							
				Αι	uthor : Title :	Publisher: Y	'ear							Demo							
Required text(s):	1											0	85	Other							
(required texts only not	2]									
a reaading list)	3]									
	4																				

				Appen	dix 6C - Cour	se Informatio	on Sheet						
Instructions:	add learning	eted for <u>every</u> instructors, or DELETING ROV	utcomes, te	xts and labora	atory content	•	·			is worksheet.	Macros are p	provided to	Validation data
Course number:	MANF270												6 10
Course title:	Production S	ystems Manage	ement l										8 85
Calendar web link:	http://www.ca	alendar.ubc.ca/	/okanagan/c	ourses.cfm?go	o=name&cod	e=MANF							8 85
* Notes:				-									8 85
* Provide explanatory no	tes on inconsis	stencies with c	alendar info	ormation (if ap	oplicable)								Yes No
CEAB course type	K-factor	Content	Μ	ath	Natural	science	Complemen	ntary studies	Engineeri	Engineer	ring decign	х м	
Х		category &							Engineeri	Engineer	ring design	DiffCalc DiffEq Discrete IntCalc LinAlg NMeths Prob Stats	
Compulsory	AU %	elements					3	0%	20%	Chem Earth Life Phys			
group	AU Total	37		0		0	1	11	7	EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics			
CEAB graduate attribute	1	2	3	4	5	6	7	8	9	11	12	0% 100%	
content**	KB	PA	lnv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	
(content code):													8 180
** Enter content level co													I D A
Content level code : bla					• •	intermediate	e); A = applied	(advanced)					
First row : Please list the	e most appropr	riate instructor	r to act as c	ourse contact			-	•		•	-	1	2 36
Instructors		Family name			First name(s)	CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	2 36
Course-contact	Iqbal			Hassan									< <u>2011</u> 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
Other(s)													
	L												
	<u> </u>							ļ					4
	<u> </u>							ļ		ļ			4
											L		
.		Acad c	redit		/wk		er sections		supervisor		e grade	Failure rate	
Course delivery and	outcomos						l lab/tut	l lab	Tu+	0/	lottor	(%)	>00 90 95 94 90 70 75 74 70 60 65 64 60 50 55 54 50 40 40 <40

 Course delivery and outcomes:
 Acad credit
 Lec
 Lab/tut
 Lab
 Tut
 %
 Letter
 %)
 >90
 89-85
 84-80
 79-75
 74-70
 69-65
 64-60
 59-55
 54-50
 49-40
 <40</th>

		3.0	3.0									A+	Α	A-	B+	В	C+	С	D+ D	E	F
			Learı	ning outcome	expectation f	or lecture an	d/or lab expe	rience	•	·		0	<1	1-2	3-5	6-10	11-15	16-20 21	-30 >30		
	1											0	85								
	2																				
	3																				
	4																				
Major learning	5																				
outcomes:	6																				
	7																				
	8																				
	9																				
	10																				
	11																				
	12																				
Laboratory exper	ience					ory experienc															
Lab type		Specify	the predomin	ant laboratory	experience t	ype for this o	course/learnii	ng activity				0	70	Hands-o	on						
Number of labs		Specify	the total num	ber laboratory	v experiences	for the cours	se/learning a	ctivity				1	12	Simulat	ion						
Laboratory safety taught	?	Are stu	dents instructe	ed in safety is	sues associate	ed with the la	aboratory space	ce and the sp	ecific learnin	g experience	?	Yes	No	Problem	n						
Laboratory safety examin	ed ?	ls there	e verification,	testing or che	cking that stu	dents have b	oth received	and understo	od safety issu	ies?				Project							
		-		Αι	thor : Title :	Publisher: Y	ear							Demo							
Required text(s):	1											0	85	Other							
(required texts only not	2																				
a reaading list)	3																				
	4																				

				Appen	dix 6C - Cours	se Informatio	on Sheet														
Instructions:	add learning	g instructors, c	outcomes, te	exts and labora	atory content.		date input is st RKSHEET AND			is worksheet.	Macros are p	provided to				Validation	data				
Course number:	MANF330												6 10)							
Course title:	Manufacturi	ng Engineering	g Project I										8 8	5							
Calendar web link:	http://www.c	alendar.ubc.ca	/okanagan/c	ourses.cfm?g	o=name&code	=MANF							8 85	5							
* Notes:													8 85	5							
* Provide explanatory not	tes on inconsi	stencies with o	calendar info	ormation (if a	oplicable)								Yes No	C							
CEAB course type X	K-factor	Content category &	Ν	Nath	Natural	science	Complemen	tary studies	ing design	X DiffCale DiffE		et(IntCalc I	inAlg NMeth	s Prob	Stats						
Flective	AU %	elements							5%	Chem Eart		Phys									
Compulsory group	AU Total	74		0		0	()	56				mpact: OWCo	r PEthics							
CEAB graduate attribute content**	1	2	3	4	5	12	0% 100)%													
(content code):	КВ	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	8 18	0							
** Enter content level coo	des for	•							•				I	D	Α						
Content level code : bla	nk = not appli	icable; I = intr	oduced (intr	oductory); D =	developed (i	intermediate	e); A = applied	(advanced)													
First row : Please list the	most approp	riate instructo	or to act as c	ourse contact									2 36	5							
Instructors		Family name			First name(s))	CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	2 36	ò							
Course-contact	Iqbal			Hassan									<2011 2012	2 2013	2014 2	2015 2016	2017				
													2017 2018	3 2019	2020 2	2021 2022	>2023				
													PEng El	T ing	ingJr	LL None					
													DPhil DS	c PhD	MPhil	MSc MEng	MA	BSc	BEng	BA Ot	her
													Full Ass	oc Asst	Emer	Adj Sr Leo	: Jr Lec	Sess	Other		
													Yes No	C							
Other(s)																					
						-															
		Acad	credit	Hrs	/wk	Numbe	r sections		supervisor	Averag	e grade	Failure rate	0.5 12	.0 0	15	<5 5-10	10-20	20-50	>50		
Course delivery and o	outcomes:	Acad	Acad creditLecLab/tutLecLab/tutLabTut%Letter(%)) 79-75	74-70 69-65	64-60	59-55	54-50 4	-40 <	40
		1	0	1.0	4.0								A. A		D .	D C.	<i>c</i>	D.	D	E C	-

		6.0	1.0	4.0								A+	Α	A-	В
			Learr	ning outcome	expectation 1	or lecture an	d/or lab expe	erience				0	<1	1-2	3.
	1											0	85		
	2											7			
	3														
	4														
Major learning	5														
outcomes:	6											1			
	7														
	8														
	9														
	10														
	11														
	12														
Laboratory experi	ence				Laborat	ory experienc	e details								
Lab type		Specify t	ne predomina	ant laboratory	vexperience	type for this c	ourse/learnir	ng activity				0	70	Hands-	on
Number of labs		Specify t	ne total num	ber laborator	y experiences	for the cours	e/learning ad	ctivity				1	12	Simulat	tion
Laboratory safety taught ?				-					pecific learnir		e?	Yes	No	Probler	n
Laboratory safety examine	ed ?	Is there v	verification, t	esting or che	cking that stu	idents have b	oth received	and understo	ood safety issu	ues?				Project	2
				Αι	uthor : Title :	Publisher: Y	ear							Demo	
Required text(s):	1											0	85	Other	
(required texts only not	2														
a reaading list)	3														
	4														

A A- B+ B C+ C D+ D E F <1 1-2 3-5 6-10 11-15 16-20 21-30 >30

	-			Appen	dix 6C - Cours	se Informatio	on Sheet						
Instructions:	add learning	; instructors, c	outcomes, te	exts and labor	atory content	•	date input is s RKSHEET AND			s worksheet.	Macros are p	provided to	Validation data
Course number:	MANF368												6 10
Course title:	Engineering	Measurements	s and Instru	mentation									8 85
Calendar web link:	http://www.ca	alendar.ubc.ca	/okanagan/o	ourses.cfm?g	o=name&code	=MANF							8 85
* Notes:													8 85
* Provide explanatory no	tes on inconsis	stencies with o	calendar inf	ormation (if a	oplicable)								Yes No
CEAB course type	K-factor	Content	N	\ath	Natural	science	Complemen	tary studies		_ .		X M	
X		category &							Engineeri	Engineer	ring design	DiffCalc DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats	
Elective	AU %	elements			1!	5%		1	70	1	5%	Chem Earth Life Phys	
Compulsory group	AU Total	43		0		6		0		6	EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics		
CEAB graduate attribute	1	2	3	4	5	6	7	8	11	12			
content**	KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	0% 100%
(content code):													8 180
** Enter content level co	des for		-	•									I D A
Content level code : bla	nk = not appli	cable; I = intr	oduced (inti	oductory); D =	developed (i	intermediate	e); A = applied	(advanced)					
First row : Please list the	e most appropi	riate instructo	or to act as o	ourse contact									2 36
Instructors		Family name			First name(s))	CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	2 36
Course-contact	Richert			Dean									<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
Other(s)													
				1			1						1
													1
													1
		A co d	oro dit	Hrs	/wk	Numbe	r sections	Students/	supervisor	Averag	e grade	Failure rate	0.5 12.0 0 15 <5 5-10 10-20 20-50 >50
Course delivery and	outcomos	Acad	credit	Loc	Lab/tut	Lec	Lab/tut	Lab	Tut		Letter	(%)	>90 89-85 84-80 79-75 74-70 69-65 64-60 59-55 54-50 49-40 <40

 Course delivery and outcomes:
 Acad credit
 Lec
 Lab/tut
 Lab
 Tut
 %
 Letter
 %
 >90
 89-85
 84-80
 79-75
 74-70
 69-65
 64-60
 59-55
 54-50
 49-40
 <40</th>

		3.0	3.0	1.0								A+	Α	A-	B+	В	C+	•	D+ D	E	F
			Lear	ing outcome	expectation f	or lecture an	nd/or lab exp	erience				0	<1	1-2	3-5	6-10	11-15	16-20 21	-30 >30		
	1											0	85								
	2																				
	3																				
	4																				
Major learning	5																				
outcomes:	6																				
	7																				
	8																				
	9																				
	10																				
	11																				
	12																				
Laboratory exper	ience				Laborat	ory experience	ce details														
Lab type		Speci	fy the predomination	ant laboratory	vexperience t	type for this o	course/learni	ng activity				0	70	Hands-c	n						
Number of labs		Speci	fy the total num	ber laborator	y experiences	for the cour	se/learning a	ctivity				1	12	Simulati	ion						
Laboratory safety taught	?	Are st	udents instructe	ed in safety is	sues associate	ed with the la	aboratory spa	ce and the sp	pecific learnin	g experience	?	Yes	No	Problem	า						
Laboratory safety examin	ied ?	ls the	re verification,	esting or che	cking that stu	dents have b	oth received	and understo	ood safety issu	ues?				Project							
				Au	uthor : Title :	Publisher: Y	'ear							Demo							
Required text(s):	1											0	85	Other							
(required texts only not	2																				
a reaading list)	3																				
	4																				

		-			Appen	dix 6C - Cours	se Informatio	on Sheet															
Instructions:		add learning	instructors, c	outcomes, te	exts and labor	atory content.		date input is st RKSHEET AND			is worksheet.	Macros are p	rovided to					Validatio	n data				
Course numbe	er:	MANF370												6	10								
Course title:		Production S	ystems Manag	gement II										8	85								
Calendar web	link:	http://www.ca	alendar.ubc.ca	a/okanagan/c	courses.cfm?g	o=name&code	=MANF							8	85								
* Notes:														8	85								
* Provide expl	anatory not	es on inconsis	tencies with o	calendar inf	ormation (if a	pplicable)								Yes	No								
CEAB cour	rse type	K-factor	Content	N	1ath	Natural	science	Complemen	ing design		X	Μ											
Х			category &						ing design					inAlg NMe	ths Prob	Stats							
Compulsory		AU %	elements					50				Earth		Phys									
		AU Total	37		0	(0		0	EngEco	o EnvSus	H&S	HumSS Ir	npact: OWO	or PEthics	S							
CEAB graduate	e attribute		2	3	4	5	6	7	8	9	10	11	12	0%	100%								
content**		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL										
content code	·													8	180								
** Enter conte															- I	D	Α						
							intermediate	e); A = applied	(advanced)														
					roductory); D = course contact		intermediate	e); A = applied	(advanced)		1	I		2	36								
	ease list the	most appropr		or to act as c	course contact			e); A = applied CC member		Est. ret. date	L. status	Highest Degree	Acad rank	2 2	36 36								
First row : Ple	ease list the ctors	most appropr	iate instructo	or to act as c	course contact						L. status	-	Acad rank	2 <2011	36 2012	2013	2014 2	015 2016	2017				
First row : Ple Instruc	ease list the ctors	most appropr	iate instructo	or to act as c	course contact						L. status	-	Acad rank	2 <2011	36 2012			015 2016 021 2022					
First row : Ple Instruc	ease list the ctors	most appropr	iate instructo	or to act as c	course contact						L. status	-	Acad rank	2 <2011	36 2012 2018	2019			>2023				
First row : Ple	ease list the ctors	most appropr	iate instructo	or to act as c	course contact						L. status	-	Acad rank	2 <2011 2017	36 2012 2018 EIT	2019 ing	2020 2 ingJr MPhil	021 2022 LL None MSc MEi	>2023 ag MA		5	BA	Other
First row : Ple Instruc	ease list the ctors	most appropr	iate instructo	or to act as c	course contact						L. status	-	Acad rank	2 <2011 2017 PEng	36 2012 2018 EIT DSc	2019 ing PhD	2020 2 ingJr MPhil	021 2022 LL None	>2023 ag MA		-	BA	Other
First row : Ple Instruc Course-c	ease list the ctors contact	most appropr	iate instructo	or to act as c	course contact						L. status	-	Acad rank	2 <2011 2017 PEng DPhil	36 2012 2018 EIT DSc	2019 ing PhD	2020 2 ingJr MPhil	021 2022 LL None MSc MEi	>2023 ag MA		-	BA (Other
First row : Ple	ease list the ctors contact	most appropr	iate instructo	or to act as c	course contact						L. status	-	Acad rank	2 <2011 2017 PEng DPhil Full	36 2012 2018 EIT DSc Assoc	2019 ing PhD	2020 2 ingJr MPhil	021 2022 LL None MSc MEi	>2023 ag MA		-	BA (Other
First row : Ple Instruc Course-c	ease list the ctors contact	most appropr	iate instructo	or to act as c	course contact						L. status	-	Acad rank	2 <2011 2017 PEng DPhil Full	36 2012 2018 EIT DSc Assoc	2019 ing PhD	2020 2 ingJr MPhil	021 2022 LL None MSc MEi	>2023 ag MA		-	BA	Other
First row : Ple Instruc Course-c	ease list the ctors contact	most appropr	iate instructo	or to act as c	course contact						L. status	-	Acad rank	2 <2011 2017 PEng DPhil Full	36 2012 2018 EIT DSc Assoc	2019 ing PhD	2020 2 ingJr MPhil	021 2022 LL None MSc MEi	>2023 ag MA		-	BA (Other
First row : Ple Instruc Course-c	ease list the ctors contact	most appropr	iate instructo	or to act as c	course contact						L. status	-	Acad rank	2 <2011 2017 PEng DPhil Full	36 2012 2018 EIT DSc Assoc	2019 ing PhD	2020 2 ingJr MPhil	021 2022 LL None MSc MEi	>2023 ag MA		-	BA (Other
First row : Ple Instruc Course-c	ease list the ctors contact	most appropr	iate instructo	or to act as c	course contact						L. status	-	Acad rank	2 <2011 2017 PEng DPhil Full	36 2012 2018 EIT DSc Assoc	2019 ing PhD	2020 2 ingJr MPhil	021 2022 LL None MSc MEi	>2023 ag MA		-	BA	Other
First row : Ple Instruc Course-c	ease list the ctors contact	most appropr	iate instructo	or to act as c	course contact	First name(s)		CC member	Hire date	date		Degree		2 <2011 2017 PEng DPhil Full Yes	36 2012 2018 EIT DSc Assoc No	2019 ing PhD Asst	2020 2 ingJr MPhil Emer	021 2022 LL None MSc MEr Adj Sr L	>2023 ag MA ec Jr Lec	Sess	Other	BA (Other
First row : Ple Instruc Course-c Other	ease list the ctors contact	most appropr	iate instructo	or to act as c	course contact					date		Degree	Acad rank	2 <2011 2017 PEng DPhil Full	36 2012 2018 EIT DSc Assoc No	2019 ing PhD Asst	2020 2 ingJr MPhil Emer 15	021 2022 LL None MSc MEi	>2023 e MA ec Jr Lec 0 10-20	Sess 20-50	Other		Other

		3.0	3.0									A+	Α	A-	B+	В	C+	С	D+ D	E	F
			Learı	ning outcome	expectation f	or lecture an	d/or lab expe	rience	•	·		0	<1	1-2	3-5	6-10	11-15	16-20 21	-30 >30		
	1											0	85								
	2																				
	3																				
	4																				
Major learning	5																				
outcomes:	6																				
	7																				
	8																				
	9																				
	10																				
	11																				
	12																				
Laboratory exper	ience					ory experienc															
Lab type		Specify	the predomin	ant laboratory	experience t	ype for this o	course/learnii	ng activity				0	70	Hands-o	on						
Number of labs		Specify	the total num	ber laboratory	v experiences	for the cours	se/learning a	ctivity				1	12	Simulat	ion						
Laboratory safety taught	?	Are stu	dents instructe	ed in safety is	sues associate	ed with the la	aboratory space	ce and the sp	ecific learnin	g experience	?	Yes	No	Problem	n						
Laboratory safety examin	ed ?	ls there	e verification,	testing or che	cking that stu	dents have b	oth received	and understo	od safety issu	ies?				Project							
		-		Αι	thor : Title :	Publisher: Y	ear							Demo							
Required text(s):	1											0	85	Other							
(required texts only not	2																				
a reaading list)	3																				
	4																				

					Appen	dix 6C - Cour	se Informatio	on Sheet																
Instructions:		add learning	g instructors, c	outcomes, te	xts and labora	atory content	•	date input is s RKSHEET AND			is worksheet.	Macros are p	rovided to					Vali	idation d	lata				
Course numbe	er:	MANF386												6	10									
Course title:		Industrial Au	utomation											8	85									
Calendar web	o link:	http://www.ca	alendar.ubc.ca	/okanagan/c	ourses.cfm?g	o=name&code	e=MANF							8	85									
* Notes:														8	85									
* Provide exp	lanatory not	tes on inconsis	stencies with o	calendar info	ormation (if a	oplicable)								Yes	No									
CEAB cou	rse type	K-factor	Content	М	ath	Natural	science	ing design		X	M		LinAla	MAatha	Drob	State								
Х			category & elements						DiffCal Chem				LinAlg	NMetris	PTOD	Stats								
Compulsory	Elective	AU %			0		0	0				Phys	Impacts	OWCom	PEthics									
CEAB graduat	group	AU Total	50 2	3	4	5	11	- T	LIIGECO	LINGUS	ind	HUMSS	impact.	owcon										
content**		KB	PA	ہ Inv.	Des.	Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	Econ.	12 LL	0%	100%									
(content code	e):		10		DC3.	10003	ream	comm.	1101.	impaces	Ethes	Leon.		8	180									
** Enter conte	ent level coo	des for													I.	D	Α							
Content level	l code : bla	nk = not appli	icable; I = intr	oduced (intro	oductory); D =	developed (intermediate	e); A = applied	(advanced)															
First row : Ple	ease list the	most approp	riate instructo	or to act as c	ourse contact									2	36									
Instru	ctors		Family name			First name(s)	CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	2	36									
Course-o	contact	Richert			Dean									<2011		2013	2014	2015	2016	2017				
														2017	2018	2019	2020			>2023				
														PEng	EIT	ing	ingJr		None					
														DPhil	DSc	PhD	MPhil		MEng		BSc	BEng	BA	Other
														Full	Assoc	Asst	Emer	Adj	Sr Lec	Jr Lec	Sess	Other		
														Yes	No									
Othe	er(s)																							
		L																						
		L																						
		L																						
		L																						
					Hrs	/wk	Numbe	r sections	Students/	supervisor	Averag	e grade	Failure rate	0.5	12.0	0	15	<5	5-10	10-20	20-50	>50		
Course de	elivery and o	outcomes:	Acad	Acad credit Hrs/wk Number sections Students/supervisor Average grade Failu Lec Lab/tut Lec Lab/tut Lab Tut % Letter												84-80	79-75	74-70	69-65	64-60	59-55	54-50	49-40	<40
			2	Acad Credit Lec Lab/tut Lec Lab/tut Lab Tut % Letter (%)												٨	р.	D	C .	<i>c</i>	D.	D	E.	-

		3.0	3.0	2.0								A+	Α	A-	В
			Learr	ning outcome	expectation 1	or lecture an	d/or lab expe	erience				0	<1	1-2	3-
	1											0	85		
	2														
	3														
	4														
Major learning	5														
outcomes:	6														
	7														
	8														
	9														
	10														
	11														
	12														
Laboratory experi-	ence				Laborat	ory experienc	e details								
Lab type		Specify t	ne predomina	ant laboratory	vexperience	type for this c	ourse/learnir	ng activity				0	70	Hands-	on
Number of labs		Specify t	ne total num	ber laborator	y experiences	for the cours	e/learning ad	ctivity				1	12	Simulat	tion
Laboratory safety taught ?)	Are stude	ents instructe	ed in safety is	sues associate	ed with the la	boratory space	ce and the s	pecific learnir	g experience	e?	Yes	No	Probler	n
Laboratory safety examine	ed ?	Is there v	verification, t	esting or che	cking that stu	idents have b	oth received	and understo	ood safety issu	ies?				Project	1
				Αι	uthor : Title :	Publisher: Y	ear							Demo	
Required text(s):	1											0	85	Other	
(required texts only not	2														
a reaading list)	3														
	4											7			

A A- B+ B C+ C D+ D E F <1 1-2 3-5 6-10 11-15 16-20 21-30 >30

		•			Apper	ndix 6C - Cour	se Informatio	on Sheet						
Instructions:	:	add learning	instructors, o	outcomes, te	exts and labor	atory content	•	date input is s RKSHEET AND			s worksheet.	Macros are p	provided to	Validation data
Course numb	ber:	MANF430												6 10
Course title:	:	Manufacturi	ng Capstone D	Design Projec	ct									8 85
Calendar we	b link:	http://www.ca	alendar.ubc.ca	a/okanagan/o	courses.cfm?g	o=name&code	e=MANF							8 85
* Notes:														8 85
* Provide exp	planatory not	tes on inconsis	stencies with	calendar inf	ormation (if a	pplicable)								Yes No
CEAB co	urse type	K-factor	Content	٨	Nath	Natural	science	Complemen	itary studies	Engineer	ring design	X M		
Х			category &							-		DiffCalc DiffEq Discrete IntCalc LinAlg NMeths Prob Stats		
Compulsory	Elective	AU %	elements								00%	Chem Earth Life Phys		
	group	AU Total	72		0		0		0	72	EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics			
CEAB gradua	te attribute	1	2	3	4	5	6	7	8	12	0% 100%			
content**	4~).	KB	PA	lnv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	
(content cod	'													8 180
	tent level coo													I D A
							intermediate	e); A = applied	(advanced)					
First row : P	lease list the	most approp	riate instructo	or to act as o	course contact	[2 36
Instr	uctors		Family name			First name(s)	CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	2 36
Course	-contact													<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 Oth
														Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
														Yes No
Oth	er(s)													
														4
														4
		L			_							ļ	 	4
		L												
						/ 1								
	delivery and c		Acad	credit	Hr: Lec	s/wk Lab/tut	Numbe Lec	r sections Lab/tut	Students/	supervisor Tut	Averag %	e grade Letter	Failure rate (%)	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 <4

		6.0	1.0	4.0								A+	Α	A-	В
			Learr	ning outcome	expectation 1	or lecture an	d/or lab expe	erience				0	<1	1-2	3.
	1											0	85		
	2											7			
	3														
	4														
Major learning	5														
outcomes:	6											1			
	7														
	8														
	9														
	10														
	11														
	12														
Laboratory experi	ence				Laborat	ory experienc	e details								
Lab type		Specify t	ne predomina	ant laboratory	vexperience	type for this c	ourse/learnir	ng activity				0	70	Hands-	on
Number of labs		Specify t	ne total num	ber laborator	y experiences	for the cours	e/learning ad	ctivity				1	12	Simulat	tion
Laboratory safety taught ?				-					pecific learnir		e?	Yes	No	Probler	n
Laboratory safety examine	ed ?	Is there v	verification, t	esting or che	cking that stu	idents have b	oth received	and understo	ood safety issu	ues?				Project	2
				Αι	uthor : Title :	Publisher: Y	ear							Demo	
Required text(s):	1											0	85	Other	
(required texts only not	2														
a reaading list)	3														
	4														

A A- B+ B C+ C D+ D E F <1 1-2 3-5 6-10 11-15 16-20 21-30 >30

				Apper	idix 6C - Cours	se Informatio	on Sheet																
nstructions:	add learning	g instructors,	outcomes, to	exts and labor	atory content	•	date input is st RKSHEET AND			is worksheet.	Macros are p	provided to					Valid	ation dat	ta				
Course number:	MANF450												6	10									
Course title:	Life Cycle A	nalysis and Su	ustainability										8	85									
Calendar web link:	http://www.c	alendar.ubc.ca	a/okanagan/o	courses.cfm?g	o=name&code	=MANF							8	85									
* Notes:													8	85									
Provide explanatory not	tes on inconsi	stencies with	calendar inf	ormation (if a	pplicable)			Yes	No														
CEAB course type	K-factor	Content	٨	Nath	Natural	science	ring design		X	Μ													
Х		category &							Lingineeri	ng science	Ligineer	ing design				IntCalc	LinAlg N	Meths Pi	rob St	tats			
Compulsory Elective	AU %	elements					40	30%	Chem			Phys											
group	AU Total	37		0		0	1	5	1	11		11	EngEco	EnvSus	H&S	HumSS	Impact: C	WCorr P	Ethics				
CEAB graduate attribute		2	3	4	5	6	7	8	9	10	11	12	0%	100%									
content**	KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL											
(content code):													8	180									
** Enter content level co														I.	D	Α							
Content level code : bla						intermediate	e); A = applied	(advanced)															
First row : Please list the	e most approp	oriate instructo	or to act as o	course contact	:		_		T		T	-	2	36									
Instructors		Family name	2		First name(s))	CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	2	36									
Course-contact	toskarani												<2011	2012	2013	2014	2015 2	016 20	017				
													2017	2018	2019	2020	2021 2	022 >2	2023				
													PEng	EIT	ing	ingJr	LL N	lone					
													DPhil	DSc	PhD	MPhil	MSc	MEng	MA	BSc	BEng	BA	Othe
													Full	Assoc	Asst	Emer	Adj S	Sr Lec J	r Lec	Sess (Other		
													Yes	No									
Other(s)																							
										_													
		Acad	credit	Hrs	s/wk	Numbe	r sections	Students/	supervisor	Averag	ge grade	Failure rate	0.5	12.0	0	15	<5	5-10 1	0-20 2	20-50	>50		
Course delivery and o	outcomes:	ACad	credit	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)	>90	89-85	84-80	79-75	74-70	69-65 6	64-60 5	59-55	54-50 4	49-40	<40
			0	2.0									Α.			Π.	D	<i>c</i> .	C	D.	D	E	-

		3.0	3.0									A+	Α	A-	В
			Learr	ning outcome	expectation	for lecture an	d/or lab expe	erience				0	<1	1-2	3.
	1											0	85		
	2														
	3														
	4														
Major learning	5														
outcomes:	6														
	7														
	8														
	9														
	10														
	11														
	12														
Laboratory experi	ence				Laborat	ory experienc	e details								
Lab type		Specify	y the predomina	ant laboratory	y experience	type for this o	ourse/learni:	ng activity				0	70	Hands-	on
Number of labs		Specify	y the total num	ber laborator	y experiences	for the cours	e/learning a	ctivity				1	12	Simulat	ion
Laboratory safety taught ?)	Are stu	udents instructe	ed in safety is	sues associat	ed with the la	boratory space	ce and the s	pecific learniı	ng experienc	e?	Yes	No	Probler	n
Laboratory safety examine	ed ?	ls ther	e verification, t	testing or che	cking that stu	idents have b	oth received	and underst	ood safety iss	ues?				Project	-
				Αι	uthor : Title :	Publisher: Y	ear							Demo	
Required text(s):	1											0	85	Other	
(required texts only not	2														
a reaading list)	3														
	4														

					Appen	dix 6C - Cours	se Informatio	n Sheet						
nstructions:	:	add learning	eted for <u>every</u> instructors, o DELETING ROV	outcomes, te	xts and labora	atory content	•				is worksheet.	Macros are p	rovided to	Validation data
Course num	ber:	MANF455												6 10
Course title:	:	Factory Plan	ning											8 85
Calendar we	eb link:		alendar.ubc.ca	/okanagan/co	ourses.cfm?go	o=name&code	e=MANF							8 85
Notes:										8 85				
	planatory not	es on inconsis	stencies with o	calendar info	ormation (if ap	oplicable)				Yes No				
CEAB co	urse type	K-factor	Content	M	ath	Natural	science	Complemen		X M				
Х		1	category &						ing design	DiffCal(DiffEq DiscreteIntCalc LinAlg NMeths Prob Stats				
C	Elective	AU %	elements						0%	Chem Earth Life Phys				
Compulsory	group	AU Total	37		0		0	()	-	7	3	80	EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics
	ate attribute	1	2	3	4	5	6	7	8	9	10	11	12	0% 100%
content**		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	0% 100%
content coo	de):													8 180
	tent level coo													
														I D A
Content leve	el code: blar	nk = not appli	cable; I = intro	oduced (intro	oductory); D =	= developed (intermediate); A = applied	(advanced)					I D A
			cable; I = intro riate instructo				intermediate); A = applied	(advanced)					L D A 2 36
First row : P		most appropr		r to act as co	ourse contact); A = applied CC member		Est. ret. date	L. status	Highest Degree	Acad rank	2 36
First row : P Instr	lease list the	most appropr	riate instructo	r to act as co	ourse contact						L. status	-	Acad rank	2 36
First row : P Instr	Please list the Puctors	most appropr	riate instructo	r to act as co	ourse contact						L. status	-	Acad rank	2 36 2 36
First row : P Instr	Please list the Puctors	most appropr	riate instructo	r to act as co	ourse contact						L. status	-	Acad rank	2 36 2 36 <2011 2012 2013 2014 2015 2016 2017
First row : P Instr	Please list the Puctors	most appropr	riate instructo	r to act as co	ourse contact						L. status	-	Acad rank	2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023
First row : P Instr	Please list the Puctors	most appropr	riate instructo	r to act as co	ourse contact						L. status	-	Acad rank	2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 PEng EIT ing ingJr LL None
First row : P Instr	Please list the Puctors	most appropr	riate instructo	r to act as co	ourse contact						L. status	-	Acad rank	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
irst row : P Instr Course	Please list the Puctors	most appropr	riate instructo	r to act as co	ourse contact						L. status	-	Acad rank	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
First row : P Instr Course	Please list the ructors -contact	most appropr	riate instructo	r to act as co	ourse contact						L. status	-	Acad rank	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
irst row : P Instr Course	Please list the ructors -contact	most appropr	riate instructo	r to act as co	ourse contact						L. status	-	Acad rank	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
irst row : P Instr Course	Please list the ructors -contact	most appropr	riate instructo	r to act as co	ourse contact						L. status	-	Acad rank	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
irst row : P Instr Course	Please list the ructors -contact	most appropr	riate instructo	r to act as co	ourse contact						L. status	-	Acad rank	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
First row : P Instr Course	Please list the ructors -contact	most appropr	riate instructo	r to act as co	ourse contact	First name(s		CC member	Hire date	date		Degree		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
irst row : P Instr Course Oth	Please list the ructors -contact	most appropr	riate instructo	r to act as co	ourse contact					date		-	Acad rank Acad rank Failure rate (%)	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

		3.0	2.0	2.0								A+	Α	A-	В
			Learr	ning outcome	expectation	for lecture an	d/or lab expe	erience		·		0	<1	1-2	3-
	1											0	85		
	2														
	3														
	4														
Major learning	5														
outcomes:	6														
	7														
	8														
	9														
	10														
	11														
	12														
Laboratory experi	ence				Laborat	ory experience	e details								
Lab type		Specify	the predomination	ant laboratory	y experience	type for this o	ourse/learni:	ng activity				0	70	Hands-o	on
Number of labs		Specify	the total num	ber laborator	y experience:	s for the cours	e/learning a	ctivity				1	12	Simulat	ion
Laboratory safety taught ?)	Are stud	ents instructe	ed in safety is	sues associat	ed with the la	boratory space	ce and the s	pecific learnii	ng experience	e?	Yes	No	Problen	n
Laboratory safety examine	ed ?	Is there	verification, 1	esting or che	cking that stu	udents have b	oth received	and underst	ood safety iss	ues?				Project	
				Au	uthor : Title :	Publisher: Y	ear							Demo	
Required text(s):	1											0	85	Other	
(required texts only not	2														
a reaading list)	3														
	4											7			

A A- B+ B C+ C D+ D E F <1 1-2 3-5 6-10 11-15 16-20 21-30 >30

				Apper	ndix 6C - Cours	se Informatio	on Sheet																
Instructions:	add learning	instructors, o	outcomes, tex	ts and labor	atory content		date input is st RKSHEET AND			is worksheet.	Macros are p	rovided to					Valio	dation da	ata				
Course number:	MANF460												6	10									
Course title:	Supply Chair	n Tactics and	Strategies										8	85									
Calendar web link:	http://www.ca	alendar.ubc.ca	a/okanagan/co	ourses.cfm?g	o=name&code	=MANF							8	85									
* Notes:													8	85									
* Provide explanatory not	tes on inconsis	stencies with	calendar info	rmation (if a	pplicable)								Yes	No									
CEAB course type	K-factor	Content	Ma	ath	Natural	science	Complemen	tary studies	Enginoori	ing science	Engineer	ing design		X	Μ								
Х		category &							Lingineeri	ing science	Lingilieei	ing design				IntCalc	LinAlg	NMeths F	Prob S	Stats			
Compulsory	AU %	elements					10							Earth		Phys							
group	AU Total	37	(0		0	3	7		0		0	EngEco	EnvSus	H&S	HumSS	Impact	OWCorr F	PEthics				
CEAB graduate attribute		2	3	4	5	6	7	8	9	10	11	12	0%	100%									
content** (content code):	КВ	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	8	180									
** Enter content level cod	des for													1	D	А							
Content level code : blar	nk = not appli	cable; I = intr	roduced (intro	ductory); D =	= developed (intermediate	e); A = applied	(advanced)															
First row : Please list the	most approp	riate instructo	or to act as co	ourse contact	:								2	36									
Instructors		Family name	9		First name(s))	CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	2	36									
Course-contact	Tosarkani						1						<2011	2012	2013	2014	2015	2016 2	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									
Other(s)																							
							1			1	1												
													• -				_						
Course delivery and o		Acad	credit	Hrs Lec	s/wk Lab/tut	Numbe	r sections Lab/tut	Students/ Lab	supervisor Tut	Averag	e grade Letter	Failure rate (%)	0.5 >90	12.0	0	15		5-10 69-65					

		3.0	3.0									A+	Α	A-	B+	В	C+	С	D+ D	E	F
			Learı	ning outcome	expectation f	or lecture an	d/or lab expe	rience	•	·		0	<1	1-2	3-5	6-10	11-15	16-20 21	-30 >30		
	1											0	85								
	2																				
	3																				
	4																				
Major learning	5																				
outcomes:	6																				
	7																				
	8																				
	9																				
	10																				
	11																				
	12																				
Laboratory exper	ience					ory experienc															
Lab type		Specify	the predomin	ant laboratory	experience t	ype for this o	course/learnii	ng activity				0	70	Hands-o	on						
Number of labs		Specify	the total num	ber laboratory	v experiences	for the cours	se/learning a	ctivity				1	12	Simulat	ion						
Laboratory safety taught	?	Are stu	dents instructe	ed in safety is	sues associate	ed with the la	aboratory space	ce and the sp	ecific learnin	g experience	?	Yes	No	Problem	n						
Laboratory safety examin	ed ?	ls there	e verification,	testing or che	cking that stu	dents have b	oth received	and understo	od safety issu	ies?				Project							
		-		Αι	thor : Title :	Publisher: Y	ear							Demo							
Required text(s):	1											0	85	Other							
(required texts only not	2																				
a reaading list)	3																				
	4																				

				Appen	dix 6C - Cours	se informatio	n Sheet															
Instructions:	add learning	leted for <u>every</u> g instructors, o DELETING ROV	utcomes, te	xts and labora	atory content.					s worksheet.	Macros are p	rovided to				Va	lidation da	ta				
Course number:	MANF465												6	10								
Course title:	Digital Enter	rprise											8	85								
Calendar web link:	http://www.c	alendar.ubc.ca	/okanagan/c	ourses.cfm?go	o=name&code	e=MANF							8	85								
* Notes:													8	85								
* Provide explanatory n	otes on inconsi	stencies with c	calendar info	ormation (if ap	oplicable)				Yes	No												
CEAB course type	K-factor	Content category &	M	ath	Natural	science	Complemen	tary studies	ing design	DiffCal	X DiffFa [M Discretur	ntCalc LinAlg	NMeths P	rob St	tats						
Flective	AU %	elements						0%	Chem E			hys										
Compulsory group	AU Total	43		0	(0		0	2	2	2	22	EngEcol E	EnvSus	H&S H	umSS Impac	t: OWCorr P	Ethics				
CEAB graduate attribute content**	e 1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL	0%	100%								
(content code):													8	180								
** Enter content level c	odes for	1 1					•	<u>I</u>		I				I.	D	Α						
Content level code : bl	ank = not appli	icable; I = intro	oduced (intro	oductory); D =	developed (i	intermediate); A = applied	(advanced)														
Content level code: bl First row:Please list th	• •					intermediate); A = applied	(advanced)					2	36								
	• •		r to act as co	ourse contact); A = applied CC member		Est. ret. date	L. status	Highest Degree	Acad rank	2	36 36								
First row : Please list th	• •	riate instructo	r to act as co	ourse contact	· · ·					L. status	Highest Degree	Acad rank	_	36	2013 20	014 2015	2016 20	017				
First row : Please list th Instructors	e most approp	riate instructo	r to act as co	ourse contact	· · ·					L. status	-	Acad rank	2	36 2012 2		014 2015 020 2021		017 2023				
First row : Please list th Instructors	e most approp	riate instructo	r to act as co	ourse contact	· · ·					L. status	-	Acad rank	2 <2011 2	36 2012 2	2019 2							
First row : Please list th Instructors	e most approp	riate instructo	r to act as co	ourse contact	· · ·					L. status	-	Acad rank	2 <2011 2 2017 2	36 2012 2 2018 2	2019 20 ing	020 2021	2022 > None	2023	BSc	BEng	BA (Other
First row : Please list th Instructors	e most approp	riate instructo	r to act as co	ourse contact	· · ·					L. status	-	Acad rank	2 <2011 2 2017 2 PEng DPhil	36 2012 2 2018 2 EIT	2019 20 ing PhD /	020 2021 ingJr LL MPhil MSc	2022 > None	2023 MA		-	BA (Other
First row : Please list th Instructors	e most approp	riate instructo	r to act as co	ourse contact	· · ·					L. status	-	Acad rank	2 <2011 2 2017 2 PEng DPhil	36 2012 2 2018 2 EIT DSc	2019 20 ing PhD /	020 2021 ingJr LL MPhil MSc	2022 > None MEng	2023 MA		-	BA (Other
First row : Please list th Instructors	e most approp	riate instructo	r to act as co	ourse contact	· · ·					L. status	-	Acad rank	2 <2011 2 2017 2 PEng DPhil Full	36 2012 2 2018 2 EIT DSc Assoc	2019 20 ing PhD /	020 2021 ingJr LL MPhil MSc	2022 > None MEng	2023 MA		-	BA (Other
First row : Please list th Instructors Course-contact	e most approp	riate instructo	r to act as co	ourse contact	· · ·					L. status	-	Acad rank	2 <2011 2 2017 2 PEng DPhil Full	36 2012 2 2018 2 EIT DSc Assoc	2019 20 ing PhD /	020 2021 ingJr LL MPhil MSc	2022 > None MEng	2023 MA		-	BA (Other
First row : Please list th Instructors Course-contact	e most approp	riate instructo	r to act as co	ourse contact	· · ·					L. status	-	Acad rank	2 <2011 2 2017 2 PEng DPhil Full	36 2012 2 2018 2 EIT DSc Assoc	2019 20 ing PhD /	020 2021 ingJr LL MPhil MSc	2022 > None MEng	2023 MA		-	BA (Other
First row : Please list th Instructors Course-contact	e most approp	riate instructo	r to act as co	ourse contact	· · ·					L. status	-	Acad rank	2 <2011 2 2017 2 PEng DPhil Full	36 2012 2 2018 2 EIT DSc Assoc	2019 20 ing PhD /	020 2021 ingJr LL MPhil MSc	2022 > None MEng	2023 MA		-	BA (Other
First row : Please list th Instructors Course-contact	e most approp	riate instructo	r to act as co	ourse contact	· · ·					L. status	-	Acad rank	2 <2011 2 2017 2 PEng DPhil Full	36 2012 2 2018 2 EIT DSc Assoc	2019 20 ing PhD /	020 2021 ingJr LL MPhil MSc	2022 > None MEng	2023 MA		-	BA (Other
First row : Please list th Instructors Course-contact	e most approp	riate instructo	r to act as co	ourse contact	First name(s)		CC member	Hire date	date		Degree		2 <2011 2 2017 2 PEng DPhil Full Yes	36 2012 2 2018 2 EIT DSc Assoc No	2019 20 ing ing ing ing ing ing ing ing ing ing	020 2021 ingJr LL MPhil MSc Emer Adj	2022 > None MEng Sr Lec J	MA Ir Lec	Sess (Other	BA (Other
First row : Please list th Instructors Course-contact	Al-Dabbagh	riate instructo	r to act as co	ourse contact	· · ·				date		-	Acad rank Acad rank Failure rate (%)	2 <2011 2 2017 2 PEng DPhil Full Yes	36 2012 2 2018 2 EIT DSc Assoc No	2019 20 ing fi PhD // Asst I	020 2021 ingJr LL MPhil MSc Emer Adj	2022 > None MEng Sr Lec J	2023 MA Ir Lec 19	Sess (Other		Other

		3.0	2.0	3.0								A+	Α	A-	В
			Learr	ning outcome	expectation 1	or lecture an	d/or lab expe	erience	·			0	<1	1-2	3-
	1											0	85		
	2														
	3														
	4														
Major learning	5														
outcomes:	6														
	7														
	8														
	9														
	10														
	11														
	12														
Laboratory experi	ence				Laborat	ory experienc	e details								
Lab type				ant laboratory								0	70	Hands-	on
Number of labs		Specify t	ne total num	ber laborator	y experiences	for the cours	e/learning ad	ctivity				1	12	Simulat	tion
Laboratory safety taught ?	1	Are stude	ents instructe	ed in safety is	sues associate	ed with the la	boratory space	ce and the s	pecific learnir	g experience	e?	Yes	No	Probler	m
Laboratory safety examine	ed ?	Is there v	verification, t	esting or che	cking that stu	idents have b	oth received	and understo	ood safety issu	ies?				Project	2
				Αι	uthor : Title :	Publisher: Y	ear							Demo	
Required text(s):	1											0	85	Other	
(required texts only not	2														
a reaading list)	3														
	4											7			

A A- B+ B C+ C D+ D E F <1 1-2 3-5 6-10 11-15 16-20 21-30 >30

					Appen	dix 6C - Cours	se Informatio	on Sheet						
Instructions:		add learning	instructors, o	outcomes, te	exts and labora	atory content		date input is st RKSHEET AND			is worksheet.	Macros are p	provided to	Validation data
Course number	r:	MANF470												6 10
Course title:		Production S	ystems Manag	gement III										8 85
Calendar web	link:	http://www.ca	alendar.ubc.ca	a/okanagan/c	courses.cfm?g	o=name&code	e=MANF							8 85
* Notes: * Provide expla	anatory note	es on inconsis	stencies with	calendar info	ormation (if a	oplicable)								8 85 Yes No
CEAB cours	se type	K-factor	Content category &		Nath	Natural	science	Complemen	tary studies	Engineeri	ng science	Engineer	ing design	X M DiffCalc DiffEq Discrete IntCalc LinAlg NMeths Prob Stats
	Elective	AU %	elements					10	0%					Chem Earth Life Phys
Compulsory		AU Total	37		0		0	3			0		0	EngEcol EnvSus H&S HumSS Impact: OWCorr PEthics
CEAB graduate		1	2	3	4	5	6	7	8	9	10	11	12	
content** (content code)		КВ	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	8 180
** Enter conter	nt level cod	les for					I							
Content level	codo y blan	1 1 1												
Content level	coue. Diai	nk = not appli	cable; I = intr	roduced (intr	roductory); D =	developed (i	intermediate	e); A = applied	(advanced)					
							intermediate	e); A = applied	(advanced)					2 36
	ase list the	most appropr		or to act as c	ourse contact			e); A = applied CC member		Est. ret. date	L. status	Highest Degree	Acad rank	2 36
First row : Plea	ase list the tors	most appropr	riate instructo	or to act as c	ourse contact						L. status	Highest Degree	Acad rank	2 36
First row : Plea	ase list the tors	most appropr	riate instructo	or to act as c	ourse contact						L. status		Acad rank	2 36 2 36
First row : Plea	ase list the tors	most appropr	riate instructo	or to act as c	ourse contact						L. status		Acad rank	2 36 2 36 <2011 2012 2013 2014 2015 2016 2017
First row : Plea	ase list the tors	most appropr	riate instructo	or to act as c	ourse contact						L. status		Acad rank	2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023
First row : Plea	ase list the tors	most appropr	riate instructo	or to act as c	ourse contact						L. status		Acad rank	2 36 2 36 <2011 2012 2013 2014 2015 2016 2017 2017 2018 2019 2020 2021 2022 >2023 PEng EIT ing ingJr LL None
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First row : Plea	ase list the tors ontact	most appropr	riate instructo	or to act as c	ourse contact						L. status		Acad rank	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 Othe Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
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First row : Plea	ase list the tors ontact	most appropr	riate instructo	or to act as c	ourse contact						L. status		Acad rank	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 Othe Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
First row : Plea	ase list the tors ontact	most appropr	riate instructo	or to act as c	ourse contact						L. status		Acad rank	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 Othe Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other
First row : Plea Instruct Course-co	ase list the tors ontact	most appropr	riate instructo	or to act as c	course contact	First name(s)		CC member	Hire date	date		Degree		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 Othe Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No
First row : Plea Instruct Course-co Other	ase list the tors ontact	most appropr	riate instructo Family name	or to act as c	course contact					date			Acad rank	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 Othe Full Assoc Asst Emer Adj Sr Lec Jr Lec Sess Other Yes No

		3.0	3.0									A+	Α	A-	B+	В	C+	С	D+ D	E	F
			Learı	ning outcome	expectation f	or lecture an	d/or lab expe	rience	•	·		0	<1	1-2	3-5	6-10	11-15	16-20 21	-30 >30		
	1											0	85								
	2																				
	3																				
	4																				
Major learning	5																				
outcomes:	6																				
	7																				
	8																				
	9																				
	10																				
	11																				
	12																				
Laboratory exper	ience					ory experienc															
Lab type		Specify	the predomin	ant laboratory	experience t	ype for this o	course/learnii	ng activity				0	70	Hands-o	on						
Number of labs		Specify	the total num	ber laboratory	v experiences	for the cours	se/learning a	ctivity				1	12	Simulat	ion						
Laboratory safety taught	?	Are stu	dents instructe	ed in safety is	sues associate	ed with the la	aboratory space	ce and the sp	ecific learnin	g experience	?	Yes	No	Problem	n						
Laboratory safety examin	ed ?	ls there	e verification,	testing or che	cking that stu	dents have b	oth received	and understo	od safety issu	ies?				Project							
		-		Αι	thor : Title :	Publisher: Y	ear							Demo							
Required text(s):	1											0	85	Other							
(required texts only not	2																				
a reaading list)	3																				
	4																				

	-			Appen	dix 6C - Cours	se Informatio	on Sheet						_								
Instructions:	add learning	instructors, o	outcomes, te	exts and labora	atory content		date input is st RKSHEET AND			is worksheet.	Macros are p	rovided to				Validatior	data				
Course number:	COSC210												6 1	0							
Course title:	Software Co	nstruction											88	5							
Calendar web link:	http://www.ca	alendar.ubc.ca	a/okanagan/o	courses.cfm?g	o=name&code	e=COSC							88	5							
* Notes:													88	5							
* Provide explanatory no	otes on inconsis	stencies with	calendar inf	formation (if a	pplicable)								Yes N	lo							
CEAB course type	K-factor	Content	N	Math	Natural	science	Complemen	tary studies	Fngineeri	ng science	Engineer	ing design)	X M				_			
Х		category &							Engineeri	ing science	Engineer	ing design	DiffCalc Diff			nAlg NMeth	is Prob	Stats			
Compulsory		elements		50%		0%							Chem Ear		Phys						
group	AU Total	56		28		28	(•		0		0	EngEcol Env	/Sus H&S	HumSS Ir	npact: OWCo	m PEthics				
CEAB graduate attribute		2	3	4	5	_ 6	7	8	9	10	11	12	0% 10	0%							
content** (content code):	KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL									
** Enter content level co	daa far												o ۱۵	80							
Enter content level co	des for																				
Contant loval codo : bl	ank – not appli	cable: I - intr	oducod (int	roductory). D -	- doveloped (i	intormodiate		(advanced)					-	I D	Α						
Content level code : bl		-			• •	intermediate	e); A = applied	(advanced)							A						
		-			• •	intermediate	e); A = applied	(advanced)	Fat wat	1	lishoot		2 3		A						
Content level code : bl First row : Please list th Instructors	e most appropr	-	or to act as o		• •		e); A = applied		Est. ret. date	L. status	Highest Degree	Acad rank	2 3 2 3	6	A						
First row : Please list th	e most appropr	riate instructo	or to act as o		• • •					L. status	-	Acad rank	2 3 <2011 201	6 6 2 2013		015 2016	2017				
First row : Please list th Instructors	e most appropr	riate instructo	or to act as o		• • •					L. status	-	Acad rank	2 3	6 6 2 2013	2014 20	021 2022	2017 >2023				
First row : Please list th Instructors	e most appropr	riate instructo	or to act as o		• • •					L. status	-	Acad rank	2 3 <2011 201 2017 201 PEng E	6 6 2 2013 8 2019 IT ing	2014 20 2020 20 ingJr	021 2022 LL None					
First row : Please list th Instructors	e most appropr	riate instructo	or to act as o		• • •					L. status	-	Acad rank	2 3 <2011 201 2017 201 PEng E	6 6 2 2013 8 2019	2014 20 2020 20 ingJr MPhil	D21 2022 LL None MSc MEng	>2023 MA			BA C)ther
First row : Please list th Instructors	e most appropr	riate instructo	or to act as o		• • •					L. status	-	Acad rank	2 3 <2011 201 2017 201 PEng E DPhil D Full As	6 6 2 2013 8 2019 IT ing Sc PhD soc Asst	2014 20 2020 20 ingJr MPhil	021 2022 LL None	>2023 MA		-	BA C)ther
First row : Please list th Instructors Course-contact	e most appropr	riate instructo	or to act as o		• • •					L. status	-	Acad rank	2 3 <2011 201 2017 201 PEng E DPhil D	6 6 2 2013 8 2019 IT ing Sc PhD soc Asst	2014 20 2020 20 ingJr MPhil	D21 2022 LL None MSc MEng	>2023 MA		-	BA C)ther
First row : Please list th Instructors	e most appropr	riate instructo	or to act as o		• • •					L. status	-	Acad rank	2 3 <2011 201 2017 201 PEng E DPhil D Full As	6 6 2 2013 8 2019 IT ing Sc PhD soc Asst	2014 20 2020 20 ingJr MPhil	D21 2022 LL None MSc MEng	>2023 MA		-	BA C)ther
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First row : Please list th Instructors Course-contact	e most appropr	riate instructo	or to act as o		• • •					L. status	-	Acad rank	2 3 <2011 201 2017 201 PEng E DPhil D Full As	6 6 2 2013 8 2019 IT ing Sc PhD soc Asst	2014 20 2020 20 ingJr MPhil	D21 2022 LL None MSc MEng	>2023 MA		-	BA C	Other
First row : Please list th Instructors Course-contact	e most appropr	riate instructo	or to act as o		• • •					L. status	-	Acad rank	2 3 <2011 201 2017 201 PEng E DPhil D Full As	6 6 2 2013 8 2019 IT ing Sc PhD soc Asst	2014 20 2020 20 ingJr MPhil	D21 2022 LL None MSc MEng	>2023 MA		-	BA C)ther
First row : Please list th Instructors Course-contact	e most appropr	riate instructo	or to act as o		• • •					L. status	-	Acad rank	2 3 <2011 201 2017 201 PEng E DPhil D Full As	6 6 2 2013 8 2019 IT ing Sc PhD soc Asst	2014 20 2020 20 ingJr MPhil	D21 2022 LL None MSc MEng	>2023 MA		-	BA C)ther
First row : Please list th Instructors Course-contact	e most appropr	riate instructo	or to act as o		First name(s)		CC member	Hire date	date		Degree		2 3 <2011 201 2017 201 PEng E DPhil D Full Ass Yes N	6 6 2 2013 8 2019 IT ing Sc PhD soc Asst Io	2014 20 2020 20 ingJr MPhil Emer	021 2022 LL None MSc MEng Adj Sr Le	>2023 MA Jr Lec	Sess	Other	BA C	Other
First row : Please list th Instructors Course-contact	e most appropr	riate instructo	or to act as o		• • •				date		-	Acad rank Acad rank Failure rate (%)	2 3 <2011 201 2017 201 PEng E DPhil D Full Ass Yes N	6 6 2 2013 8 2019 IT ing Sc PhD soc Asst Io	2014 20 2020 20 ingJr MPhil Emer	D21 2022 LL None MSc MEng	>2023 MA Jr Lec 10-20	Sess 20-50	Other		

		4.0	3.0	3.0								A+	Α	A-	В
			Learr	ning outcome	expectation	for lecture an	d/or lab expe	erience				0	<1	1-2	3.
	1											0	85		
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	3														
	4														
Major learning	5														
outcomes:	6														
	7														
	8														
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	11														
	12														
Laboratory experi	ence				Laborat	ory experience	e details								
Lab type		Specify	the predomina	ant laboratory	y experience	type for this o	ourse/learni:	ng activity				0	70	Hands-o	วท
Number of labs		Specify	/ the total num	ber laborator	y experience:	s for the cour	se/learning a	ctivity				1	12	Simulat	ion
Laboratory safety taught ?	•	Are stu	udents instructe	ed in safety is	sues associat	ed with the la	boratory spa	ce and the s	pecific learnir	ng experience	e?	Yes	No	Problen	n
Laboratory safety examine	ed ?	ls ther	e verification, 1	esting or che	cking that stu	udents have b	oth received	and underst	ood safety iss	ues?				Project	
				A	uthor : Title :	Publisher: Y	ear							Demo	
Required text(s):	1											0	85	Other	
(required texts only not	2														
a reaading list)	3														
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A- B+ B C+ C D+ D E F 1-2 3-5 6-10 11-15 16-20 21-30 >30

				Apper	idix 6C - Cour	se informatio	on sneet						_									
nstructions:	add learning	g instructors, c	outcomes, te	exts and labor	atory content		date input is st PRKSHEET AND			is worksheet.	Macros are p	provided to					Valic	dation dat	a			
Course number:	COSC310												6	10								
Course title:	Software En	gineering											8	85								
Calendar web link:	http://www.c	alendar.ubc.ca	/okanagan/o	courses.cfm?g	o=name&code	=COSC							8	85								
Notes:			-										8	85								
Provide explanatory	notes on inconsi	stencies with o	calendar inf	ormation (if a	pplicable)								Yes	No								
CEAB course type X	K-factor	Content category &	N	Nath	Natural	science	Complemen	tary studies	Engineeri	ng science	Engineer	ring design	DiffCal	X DiffEq	M Discrete	IntCalc	LinAlg 1	NMeths Pr	ob Sta	ts		
Flectiv	/e AU %	elements	[50%	5	0%								Earth		Phys	2					
Compulsory group		50		25		.5	()		0		0				· · · · · · · · · · · · · · · · · · ·	Impact: (OWCon PE	Ethics			
EAB graduate attribu		2	3	4	5	6	7	8	9	10	11	12	0%	100%								
content** content code):	КВ	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	8	180								
* Enter content level	codes for													1	D	Α						
Content level code :	blank = not appl	icable; I = intr	oduced (intr	roductory); D	= developed (intermediate	e); A = applied	(advanced)														
First row : Please list	the most approp	riate instructo	r to act as c	course contact	:			· · ·					2	36								
Instructors		Family name			First name(s)	CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	2	36								
Course-contact													<2011	2012	2013	2014	2015 2	2016 20	17			
													2017	2018	2019	2020	2021 2	2022 >2	023			
													PEng	EIT	ing	ingJr	LL 1	None				
													DPhil	DSc	PhD	MPhil	MSc	MEng	MA B	Sc BEng	BA	Other
													Full	Assoc	Asst	Emer	Adj	Sr Lec Jr	Lec Se	ess Othe	-	
													Yes	No								
Other(s)																						
Other(s)																						
Other(s)																						
Other(s)													-									
Other(s)													-									
Other(s)				Hrs	s/wk	Numbe		Studente /	supervisor	Δνοτος	ae grade	Failuro rato	0.5	12 0	0	15	<5	5-10 1	7-20 20	-50 >50		
Other(s) Course delivery a	nd outcomes:	Acad	credit	Hrs Lec	s/wk	Numbe	r sections	Students/	supervisor Tut	Averag	ge grade	Failure rate	0.5	12.0 89-85	0 84-80					-50 >50 -55 54-5() 40-40	<40

		3.0	3.0	2.0								A+	Α	A-	В
			Learr	ning outcome	expectation 1	or lecture an	d/or lab expe	erience	·			0	<1	1-2	3-
	1											0	85		
	2														
	3														
	4														
Major learning	5														
outcomes:	6														
	7														
	8														
	9														
	10														
	11														
	12														
Laboratory experi-	ence				Laborat	ory experienc	e details								
Lab type		Specify t	ne predomina	ant laboratory	vexperience	type for this c	ourse/learnir	ng activity				0	70	Hands-	on
Number of labs		Specify t	ne total num	ber laborator	y experiences	for the cours	e/learning ad	ctivity				1	12	Simulat	tion
Laboratory safety taught ?)	Are stude	ents instructe	ed in safety is	sues associate	ed with the la	boratory space	ce and the s	pecific learnir	g experience	e?	Yes	No	Probler	n
Laboratory safety examine	ed ?	Is there v	verification, t	esting or che	cking that stu	idents have b	oth received	and understo	ood safety issu	ies?				Project	1
				Αι	uthor : Title :	Publisher: Y	ear							Demo	
Required text(s):	1											0	85	Other	
(required texts only not	2														
a reaading list)	3														
	4											7			

A A- B+ B C+ C D+ D E F <1 1-2 3-5 6-10 11-15 16-20 21-30 >30

				Appen	dix 6C - Cours	se Informatio	on Sheet															
nstructions:	add learning	g instructors, o	outcomes, t	y and elective exts and labora OTHER WAY W	atory content.					is worksheet.	Macros are p	provided to					Validatior	ı data				
Course number:	HuSSElec												6	10								
Course title:	Humanities	& Social Scien	nces Elective	2									8	85								
Calendar web link:	http://www.c	alendar.ubc.ca	a/okanagan/i	ndex.cfm?tree	=18,317,989,1	379							8	85								
Notes:	List of appro	oved topics: A	cademic Adv	/ising http://e	ngineering.ok	.ubc.ca/cur	rent.html						8	85								
Provide explanatory not	tes on inconsi	stencies with	calendar inf	ormation (if a	oplicable)								Yes	No								
CEAB course type	K-factor	Content	٨	Nath	Natural	science	Complemen	ntary studies	Engineeri	ng seionso	Engineer	ring design		X	Μ							
Х		category &					HumSS		Engineeri	ng science	Engineer	ing design				IntCalc Lin/	lg NMet	ns Prob	Stats			
Compulson Elective	AU %	elements		-		-	10	00%					Chem			Phys						
Compulsory group	AU Total	37		0	(0	3	37		0		0	EngEco	EnvSus	H&S	HumSS Imp	act: OWCo	or PEthics	S			
CEAB graduate attribute	1	2	3	4	5	6	7	8	9	10	11	12	0%	100%								
content**	KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	0%	100%								
content code):													8	180								
* Enter content level co	des for													1	D	Α						
Content level code : bla	nk = not appl	icable; I = intr	roduced (int	roductory); D =	developed (i	intermediate	e); A = applied	(advanced)														
First row : Please list the	e most approp	riate instructo	or to act as o	course contact									2	36								
Instructors		Family name	2		First name(s))	CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	2	36								
Course-contact													<2011	2012	2013	2014 201	5 2016	2017				
							1						2017	2018	2019	2020 202	1 2022	>2023				
													PEng	EIT	ing	ingJr L	None					
													DPhil	DSc	PhD	MPhil MS	c MEng	g MA	BSc	BEng	BA	Other
													Full	Assoc	Asst	Emer Ad	lj Sr Le	c Jr Lec	Sess	Other		
													Yes	No								
Other(s)																						
							1															
				1			1															
				1						1												
				Hrs	/wk	Numbe	r sections	Students/	supervisor	Averag	e grade	Failure rate	0.5	12.0	0	15 <	5 5-10	10-20	20-50	>50		
Course delivery and o	outcomes:	Acad	credit	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)	>90	89-85	84-80	79-75 74-	70 69-6	5 64-60	59-55	54-50	49-40	<40
		, n	2.0	2.0			1		1	1						D. D						

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			Learı	ning outcome	expectation f	or lecture an	d/or lab expe	rience	•	·		0	<1	1-2	3-5	6-10	11-15	16-20 21	-30 >30		
	1											0	85								
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	3																				
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Major learning	5																				
outcomes:	6																				
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Laboratory exper	ience					ory experienc															
Lab type		Specify	the predomin	ant laboratory	experience t	ype for this o	course/learnii	ng activity				0	70	Hands-o	on						
Number of labs		Specify	the total num	ber laboratory	v experiences	for the cours	se/learning a	ctivity				1	12	Simulat	ion						
Laboratory safety taught	?	Are stu	dents instructe	ed in safety is	sues associate	ed with the la	aboratory space	ce and the sp	ecific learnin	g experience	?	Yes	No	Problem	n						
Laboratory safety examin	ed ?	ls there	e verification,	testing or che	cking that stu	dents have b	oth received	and understo	od safety issu	ies?				Project							
		-		Αι	thor : Title :	Publisher: Y	ear							Demo							
Required text(s):	1											0	85	Other							
(required texts only not	2																				
a reaading list)	3																				
	4																				

					Appen	dix 6C - Cours	se Informatio	on Sheet																
nstructions:	:	add learning	g instructors, c	outcomes, te	xts and labora	atory content	•	date input is s PRKSHEET AND			is worksheet.	Macros are p	provided to					Val	idation d	ata				
Course num	ber:	TECHELEC1												6	10									
Course title:	:	MANF Techn	ical Elective											8	85									
Calendar we	eb link:	http://enginee	ering.ok.ubc.ca	a/ shared/a	ssets/Mechar	ical Advising	Sheet 2018	1961488.pdf						8	85									
* Notes:			oose electives											8	85									
* Provide exp	planatory not	tes on inconsis	stencies with o	calendar info	ormation (if a	pplicable)								Yes	No									
CEAB co	urse type	K-factor	Content	М	ath	Natural	science	Complemen	itary studies	Enginoori	ng science	Engineer	ring design		X	Μ								
	B3		category &							Engineen	lig science	Engineer	ing design				^{te} IntCalc	LinAlg	NMeths	Prob	Stats			
Compulsory	Elective	AU %	elements							5	0%				Earth		Phys							
	group	AU Total	37		0		0		0	1	19		0	EngEco	EnvSus	H&S	HumSS	Impacts	OWCom	PEthics				
CEAB gradua content**	te attribute	1 KB	2 PA	3 Inv.	4 Des.	5 Tools	6 Team	7 Comm.	8 Prof.	9 Impacts	10 Ethics	11 Econ.	12 LL	0%	100%									
(content coc	le):				2 000					mpuete				8	180									
** Enter cont	tent level coo	des for	1				I	1							1	D	А							
Content leve	el code : bla	nk = not appli	icable; I = intr	oduced (intr	oductory); D =	= developed (i	intermediate	e); A = applied	(advanced)															
First row : P	lease list the	most appropr	riate instructo	or to act as c	ourse contact				, ,					2	36									
Instr	uctors		Family name			First name(s))	CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	2	36									
Course	-contact													<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									
Oth	er(s)																							
					L re	;/wk	Numbo	r sections	Students/	supervisor	Avera	ge grade	Failure rate	0.5	12.0	0	15	<5	5-10	10-20	20.50	>50		
Course	delivery and o	outcomes	Acad	credit	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	Averas %	Letter	(%)	>90					69-65				10_10	<40
course c		saccomes.	3.	0	3.0		LEC		Lab	Tut	/0	Letter	(/0)						C+					F
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Lab type		Specify	the predomin	ant laboratory	experience t	ype for this o	course/learnii	ng activity				0	70	Hands-o	on						
Number of labs		Specify	the total num	ber laboratory	v experiences	for the cours	se/learning a	ctivity				1	12	Simulat	ion						
Laboratory safety taught	?	Are stu	dents instructe	ed in safety is	sues associate	ed with the la	aboratory space	ce and the sp	ecific learnin	g experience	?	Yes	No	Problem	n						
Laboratory safety examin	ed ?	ls there	e verification,	testing or che	cking that stu	dents have b	oth received	and understo	od safety issu	ies?				Project							
		-		Αι	thor : Title :	Publisher: Y	ear							Demo							
Required text(s):	1											0	85	Other							
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				Appen	ndix 6C - Cours	se Informatio	on Sheet															
Instructions:	add learning	instructors, o	outcomes, te	xts and labora	atory content		date input is s RKSHEET AND			is worksheet.	Macros are p	provided to					Valida	ation data				
Course number:	TECHELEC1												6	10								
Course title:	MANF Techn	ical Elective											8	85								
Calendar web link:	http://enginee	ering.ok.ubc.c	a/ shared/a	ssets/Mechar	nical Advising	Sheet 2018	1961488.pdf						8	85								
* Notes:					nical electives								8	85								
* Provide explanatory no													Yes	No								
CEAB course type	K-factor	Content	M	ath	Natural	science	Complemen	ntary studies						X	м							
B3		category &						,	Engineeri	ng science	Engineer	ing design	DiffCal	DiffEq	Discret	IntCalc L	inAlg N	Meths Pro	o Stats			
Flective	AU %	elements												Earth		Phys	_					
Compulsory group	AU Total	37		0		0		0		0		0				HumSS I	mpact: O	WCorr PEt	hics			
CEAB graduate attribute		2	3	4	5	6	7	8	9	10	11	12										
content**	KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	0%	100%								
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** Enter content level co	des for		<u></u>	1		1					<u> </u>			1	D	Α						
Content level code : bla	nk = not appli	cable; I = intr	oduced (intro	oductory); D =	= developed (intermediate	e); A = applied	(advanced)														
First row : Please list the	e most appropr	riate instructo	or to act as co	ourse contact	:								2	36								
Instructors		Family name	,		First name(s))	CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	2	36								
Course-contact											-		<2011	2012	2013	2014 2	2015 20	016 201	7			
													2017	2018	2019	2020 2	2021 20	022 >20	23			
													PEng	EIT	ing	ingJr	LL N	one				
													DPhil	DSc	PhD	•	MSc M	WEng N	A BSc	BEng	BA	Other
													Full	Assoc	Asst	Emer	Adi S	r Lec Jr	.ec Ses	Other		
													Yes	No								
Other(s)																						
							-															
		Acad	credit	Hrs	s/wk	Numbe	r sections	Students/	supervisor	Averag	e grade	Failure rate	0.5	12.0	0	15	<5	5-10 10	20 20-5	o >50		
Course delivery and	outcomes:	ACdu		Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)	>90	89-85	84-80	79-75	74-70 6	69-65 64	60 59-5	5 54-50	49-40	<40
		2	0	2.0									1			р.	р	c	- D.		-	-

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			Learı	ning outcome	expectation f	or lecture an	d/or lab expe	rience	•	·		0	<1	1-2	3-5	6-10	11-15	16-20 21	-30 >30		
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Major learning	5																				
outcomes:	6																				
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Laboratory exper	ience					ory experienc															
Lab type		Specify	the predomin	ant laboratory	experience t	ype for this o	course/learnii	ng activity				0	70	Hands-o	on						
Number of labs		Specify	the total num	ber laboratory	v experiences	for the cours	se/learning a	ctivity				1	12	Simulat	ion						
Laboratory safety taught	?	Are stu	dents instructe	ed in safety is	sues associate	ed with the la	aboratory space	ce and the sp	ecific learnin	g experience	?	Yes	No	Problem	n						
Laboratory safety examin	ed ?	ls there	e verification,	testing or che	cking that stu	dents have b	oth received	and understo	od safety issu	ies?				Project							
		-		Αι	thor : Title :	Publisher: Y	ear							Demo							
Required text(s):	1											0	85	Other							
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	•			Appen	ndix 6C - Cours	se Informatio	on Sheet															
Instructions:	add learning	instructors, o	outcomes, te	xts and labor	atory content		date input is s RKSHEET AND			is worksheet.	Macros are p	provided to					Validatior	ı data				
Course number:	TECHELEC3												6	10								
Course title:	MANF Techn	ical Elective											8	85								
Calendar web link:	http://enginee	ering.ok.ubc.c	a/ shared/a	ssets/Mechar	nical Advising	Sheet 2018	1961488.pdf						8	85								
* Notes:					nical electives								8	85								
* Provide explanatory no	tes on inconsis	stencies with	calendar info	prmation (if a	pplicable)								Yes	No								
CEAB course type	K-factor	Content	M	ath	Natural	science	Complemen	ntary studies						X	Μ							
B3		category &							Engineeri	ng science	Engineer	ing design	DiffCal	, DiffEq	Discret	IntCalc Lin	Alg NMetl	ns Prob	Stats			
Elective	AU %	elements											Chem	Earth	Life	Phys						
Compulsory group	AU Total	37		0		0		0		0		0	EngEco	EnvSu	s H&S	HumSS Imp	act: OWCo	m PEthics	6			
CEAB graduate attribute	1	2	3	4	5	6	7	8	9	10	11	12	• • •									
content**	KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	0%	100%								
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Content level code : bla	nk = not appli	cable; I = intr	roduced (intro	oductory); D =	= developed (i	ntermediate	e); A = applied	(advanced)														
First row : Please list the	e most appropi	riate instructo	or to act as co	ourse contact	:								2	36								
Instructors		Family name	2		First name(s)		CC member	Hire date	Est. ret. date	L. status	Highest Degree	Acad rank	2	36								
Course-contact													<2011	2012	2013	2014 201	5 2016	2017				
													2017	2018	2019	2020 202	1 2022	>2023				
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Other(s)																						
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		Acad	credit	Hrs	s/wk	Numbe	r sections	Students/	•	-	e grade	Failure rate		12.0	0		5 5-10					
Course delivery and	outcomes:			Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)	>90			79-75 74						
		I 2	0	20	1	1	1	1		1	1	1	l .			D.		~			-	

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Major learning	5																				
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	12																				
Laboratory exper	rience					ory experience															
Lab type		Specify	the predomina	ant laboratory	experience t	ype for this o	course/learni	ng activity				0	70	Hands-c	on						
Number of labs		Specify	the total num	ber laboratory	experiences	for the cours	se/learning a	ctivity				1		Simulat	ion						
Laboratory safety taught	?	Are stud	dents instructe	ed in safety iss	sues associate	ed with the la	aboratory spa	ce and the sp	pecific learnin	g experience	e?	Yes	No	Problem	n						
Laboratory safety examin	ned ?	ls there	verification, t	esting or cheo	cking that stu	dents have b	oth received	and understo	ood safety issu	ues?				Project							
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Required text(s):	1											0	85	Other							
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					Appen	dix 6C - Cour	se Informatio	on Sheet]									
Instructions:		to add learr	oleted for <u>ever</u> ning instructor C DELETING R(rs, outcomes	, texts and la	boratory cor	itent.					et. Macros ai	e provided					Va	lidation	data			
Course number	r:													6	10)							
Course title:														8	85	j							
Calendar web	link:													8	85								
* Notes: * Provide expla	anatory not	tes on incons	sistencies with	n calendar ini	formation (if	applicable)								8 Yes	85 No								
CEAB cours	se type	K-factor	Content category &	M	ath	Natura	science	Complemen	ntary studies	Engineeri	ing science	Engineer	ing design		Х	м	retIntCa	Ic LinAlg	g NMeths	s Prob	Stats		
	Elective	AU %	elements													h Life							
Compulsory		AU Total	36		0		0		0		0		0					s Impac	t OWCon	r PEthics			
CEAB graduate	e attribute	1	2	3	4	5	6	7	8	9	10	11	12	0%	100	0/							
content**		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL										
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Content level						· · · ·	d (intermedia	ate); A = appli	ied (advanced	1)													
First row : Plea	ase list the	e most appro	priate instruct	tor to act as	course conta	ct						<u> </u>	1	2	36								
Instruct	tors		Family name	2		First name(s)	CC member	Hire date		L. status	Highest Degree	Acad rank	2	36								
Course-co	ontact													<201		2 2013	2014	2015		2017		2019	
														2017	7 2018	3 2019	2020	2021		2023	2024	>2025	
														PEng	g El ⁻	۲ ing	g ingJı	r LL	P.Geo	None			
														DPhi		c Ph				MA	BSc	BEng	BA
											L			Full	Ass	oc Ass	t Eme	r <mark>Adj</mark>	Sr Lec	Jr Lec	Sess	Other	

												Yes	1	No											
Other(s)								-				_													
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		A and aradit	Hrs	/wk	Number	sections	Students/	[/] supervisor	Averag	e grade	Failure rate	0.5	1	2.0	0 15	<5	5-10	10-20	20-50	>50	0.0	6.0			
Course delivery and	outcomes:	Acad credit	Lec	Lab/tut	Lec	Lab/tut	Lab	Tut	%	Letter	(%)	>90	89	9-85 8	4-80 79-7	5 74-70	69-65	64-60	59-55	5 4-50 49	9-40 <	<40 N/A			
												A+		Α	A- B+	В	B-	C+	С	C- [D+	D D	E	F	N/A
			Learni	ing outcome e	xpectation f	or lecture an	d/or lab exp	erience				0			1-2 3-5	6-10	11-15	6 16-20	21-30 >	30 N/	Α				
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Major learning	5																								
outcomes:	6											_													
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Laboratory expe					Laborat	ory experienc	e details																		
Lab type		Specify t	he predomina	ant laboratory				ning activity				0	7	70 H	ands-on										
Number of labs				ber laborator								1			mulation										
Laboratory safety taugh	nt?	Are stude	ents instructe	ed in safety is:	sues associa	ted with the	aboratory sp	ace and the	specific learn	ing experien	ce?	Yes	No) Pi	oblem										
Laboratory safety exam	ined ?	Is there v	/erification, 1	testing or che	cking that st	udents have	both receive	d and unders	stood safety is	sues?					oject										
				Aut	hor : Title :	Publisher: Y	ear								emo										
Required text(s):	1											0	8	85 O	ther										
(required texts only not																									
a reading list)	3																								
	4			F																					

Other

		-			Appendix 6C	- Course Info	rmation Shee	et (Prior Sudie	es)					
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											6	
Course title:		Prior Studies											8	
Calendar web link:												8		
* Notes:												8		
* Provide exp	planatory not	tes on inconsi	stencies with	calendar inf	ormation (if a	pplicable)								Yes N
CEAB course type		K-factor	Content	Math		Natural science		Complementary studies		Engineering science		Engineering design		1
			category &							Lingineeri	lig science	Lingilieer	ing design	DiffCal
Compulsory	Elective	AU %	elements											Chem E
	group	AU Total		0		0		0		0		0		EngEcol Env
CEAB gradua	te attribute	1	2	3	4	5	6	7	8	9	10	11	12	0% 1
content**		KB	PA	Inv.	Des.	Tools	Team	Comm.	Prof.	Impacts	Ethics	Econ.	LL	0%
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Contont love	l codor blan	k – not appli	cables I - intre	ducad (intr	aductory), D -	- dovolopod (intermediate	$\lambda \cdot A = applied$	d (advanced)					M N

X M

hiffEq Discret IntCalc IntCalc NMeths Prob Stats arth Life Phys nvSus H&S HumSS Impact: ORCom PEthics

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Content level code:	blank = not applicable;	I = introduced (introductory); I) = developed ((intermediate); A	a = applied (advanced)	

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