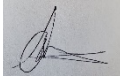





CURRICULUM MODIFICATION REQUEST FORM

COURSE OR PROGRAM CURRICULUM "RATIONALE FOR CHANGE"

Program Requiring Changes

Program Title: Practical Elements of Mechanical Engineering		
Program Number: PEM1	Date Submitted: 11/2/2020	
Dean responsible for program: Steve Patterson	Chair: Lindsay Engel	
Credential Provided: <input type="checkbox"/> Declaration of Academic Achievement <input type="checkbox"/> Local Certificate <input type="checkbox"/> Ontario College Certificate <input type="checkbox"/> Diploma <input type="checkbox"/> Advanced Diploma <input checked="" type="checkbox"/> Grad Certificate <input type="checkbox"/> Degree <input type="checkbox"/> Apprenticeship		
Program Intakes: <input type="checkbox"/> F <input checked="" type="checkbox"/> W <input type="checkbox"/> S Other:	Catalogue Year(s) Impacted: 21W Term ONLY	
Residency Requirement: <input checked="" type="checkbox"/> Met or <input type="checkbox"/> Not Met	Date of Last Program Review: 11/15/2016	
<i>I have read the reasons for the change and...</i>	<i>Signature and date</i>	
Dean of Faculty (Lead program):	<input checked="" type="checkbox"/> Approve <input type="checkbox"/> Do Not Approve	 November 2, 2020
Dean of Faculty (Affiliate program-impacted by change):	<input type="checkbox"/> Approve <input type="checkbox"/> Do Not Approve	
Dean of Faculty (Affiliate program-impacted by change):	<input type="checkbox"/> Approve <input type="checkbox"/> Do Not Approve	
Senior Vice President Academic (required for major changes and late DAs):	<input checked="" type="checkbox"/> Approve <input type="checkbox"/> Do Not Approve	 November 11, 2020
Director, Centre for Academic Excellence:	<input checked="" type="checkbox"/> Supports <input type="checkbox"/> Does Not Support	 November 3, 2020
Office of the Registrar:	<input checked="" type="checkbox"/> Supports <input type="checkbox"/> Does Not Support	 November 16, 2020
Notes:		

Please answer each of the questions below, if applicable. Missing or incomplete information may delay review of the proposed changes.

1.0 Describe proposed change(s). Complete Appendix A (if necessary) and amend SDAR (Refer to Appendix C).

2.0

PEM1 requires a Curriculum Modification in order to admit students into the Winter 2021 intake while the College is still operating with reduced face-to-face courses due to COVID-19 protocols. The program has mapped out the courses and proposes to move the bulk of the theory component of the program to Level 1, which will be offered in 21W in a fully online delivery. The bulk of the in-lab practical components will be taught in Level 2 – in 21S. This change is proposed as a one-off offering due to the COVID-19 pandemic and is not likely to be a long-term proposed change. Future offerings of the program will revert back to PEM1 as it is currently formulated.

The change will require some courses to be swapped between Levels 1 and 2. Furthermore, three Level 1 courses will be required to split into six new courses – separating the online theoretical components from the face-to-face practical components – in order to make the change a workable solution for students.

Reason/Rationale for Changes

2.1 The reason for the change is based on:

- A recent program review
- Program Advisory Committee feedback
- Student feedback
- KPI results
- Accreditation or other regulatory requirements
- Shared curriculum
- Trends in the field/industry
- Other (please describe): COVID-19 Protocols

2.2 Does the change support the College's Strategic Framework (mission, vision, values)?

- Yes
- No (If no, please explain)

2.3 What strategic goal(s) does the proposed change support?

- Goal 1 – Enhance innovative practices for exceptional student learning
- Goal 2 – Manage enrolment growth
- Goal 3 – Optimize use of resources
- Goal 4 – Build sustainable sources of alternative revenue

3.0 Students

3.1 Will the change affect the cost of the program for students?

- Yes
- No

3.2 If yes, there will be an additional cost for:

- Materials (Include details):
- Equipment (Include details):
- Other (Please describe):

4.0 Program Learning Outcomes

4.1 Will the proposed change meet the Program Vocational Learning Outcomes? (Complete Appendix B and mark the changes in the mapping [e.g. red font])

- Yes
- No

4.2 Are there any implications related to progression because of pre-requisite courses (and/or co-requisite courses)?

- No
- Yes (If yes, please explain)

5.0 Relationships with Other Programs

5.1 Are any of the courses impacted by the change provided by another School (e.g., SLLS, LKSB) and/or delivered at another campus?

- No
- Yes

5.2 What Schools/Campuses will be impacted by the proposed change?

- Lawrence Kinlin School of Business
- School of Information Technology
- School of Contemporary Media
- School of Design
- School Digital and Performing Arts
- School of Tourism, Hospitality and Culinary Arts
- School of Community Studies
- School of Health Sciences
- School of Nursing
- School of Public Safety

- Donald J. Smith School of Building Technology
- Norton Wolf School of Aviation Technology
- School of Applied Sciences and Technology
- School of Transportation Technology and Apprenticeship
- School of Language and Liberal Studies
- English Language Institute
- London South Campus
- Simcoe/Norfolk Regional Campus
- St Thomas/Elgin Regional Campus
- Woodstock/Oxford Regional Campus
- Huron/Bruce Regional Sites

5.3 Will the change affect pathway agreements (e.g., bridging, articulations, laddering, advanced standing) with other Fanshawe program(s) and/or other institution(s)?
(Refer to the pathway agreements listed here: <http://transferagreements.fanshawec.ca/>)

- No
- Yes (If yes, indicate when you will notify the other Fanshawe program(s) and/or other institution(s) and the Pathways Coordinator in the Centre for Academic Excellence of the change)

5.4 If this program is a Co-Operative Education program, will the proposed change impact Co-op?

- No
- Yes (If yes, consult with the Co-op office prior to submission)

6.0 Resource Implications of Proposed Changes

6.1 Will the proposed change have staffing implications?

- No
- Yes (If yes, please explain)

6.2 Will the proposed change impact any of the Enabling areas?

- No
- Yes (If yes, please explain)

6.3 Will the proposed change affect space and/or technology requirements?

- No
- Yes (If yes, please explain): There will be additional time required in labs in addition to the "usual" amount required for a "normal" Level 2 delivery. Lisa Dennis has run a simulation around the extra lab time the program would need in 21S, and there are no concerns.

7.0 General College Requirements

7.1 Are changes consistent with Colleges policies?

- Yes
 No (If no, please explain)

7.2 Will the program meet the General Education requirements (Policy A126) as listed below?

- No
 Yes

Local Certificate, Ontario College Certificate and Graduate Certificate - none required)	Diploma - 3 required (minimum of 1 must be an elective)	Advanced Diploma - 4 required (minimum of 2 must be electives)
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7.3 Will the program have 25% distinct curriculum to meet the Residency Requirement of 25% credit units? Consider all pathway agreements (e.g., bridging, internal articulations, laddering, advanced standing) with other Fanshawe programs and/or other institutions.

- No
 Yes

Note: In accordance with POLICY NUMBER: A122 Graduation from Approved College Programs

...to be eligible for any College Credential a student must be enrolled and complete at least 25% of that program's credit units at Fanshawe College, unless stipulated differently by other approving bodies such as the Postsecondary Education Quality Assessment Board (PEQAB).

7.4 Indicate:

- i) Total program hours before proposed change: 735
ii) Total program hours after proposed change: 735
iii) Level(s) in which the proposed change(s) occurs: Levels 1 and 2

7.4.1 Are the total program hours consistent with the requirements as listed below?

- Yes
 No (If no, please explain)

Local Certificate - 300 hours	Ontario College Certificate - 600 hours
Diploma - 1200 to 1400 hours	Advanced Diploma - 1800 to 2100 hours
Graduate Certificate - 600 hours	DOAA - less than 200 hours

Appendix A – Proposed Curriculum Modification

Current Delivery Model

Level 1: Take all of the following Mandatory Courses:	<u>Credits</u>
CADD-1054 – Eng. Drawing & BP Reading	2
CADD-1055 - CADD Fundamentals	1.5
MACH-1124 - Machining 1	2
WELD-1040 - Welding Technology 1	2
MGMT-6098 - Project Management	3
ENGR-1026 - Engineering Design 1	3.5
MECH-1072 - SPC & Metrology	3
MATS-1021 - Ferrous Metallurgy	2
Level 2: Take all of the following Mandatory Courses:	
WELD-1047 - Production Welding	3
MACH-1144 - CNC Machining	3.5
MECH-1090 - Tool Design 1	1
MECH-6006 - Industrial Automation	4.5
METH-1002 - Technology in Industry	3
MECH-3035 - Practical Project	2

New revised Delivery for W2021

Term 1 – Winter 2021

Change?	Original course code	Original Credit weight	Delivery	Part of Term	Delivery style	New Credit Weight	New Course Code
no	CADD-1054 – Eng. Drawing & BP Reading	2	Condensed All online	1 st half	1 sync, 3 async		
no	CADD-1055 - CADD Fundamentals	1.5	Condensed All online	1 st half	1 sync, 5 async		
no	MGMT-6098 - Project Management	3	All online	Full term	3 hrs sync		
no	ENGR-1026 - Engineering Design 1	3.5	All online	Full term	5 hrs sync		
Moved from 2 to 1	METH-1002 - Technology in Industry	3	All online	Full term	1hr sync 2 async		
Moved from 2 to 1	MECH-1090 - Tool Design 1	1	Condensed All online	2 nd half	1 sync, 1 async		
Yes - split	MECH-1072 - SPC & Metrology	3	2 hr lecture only ONLINE	Full term	2 hrs sync	2	MECH-6007
Yes - split	MACH-1124 - Machining 1	2	1 hr lecture only ONLINE	Full term	1 hr sync	1	MACH-6003
Yes - split	WELD-1040 - Welding Technology 1	2	1 hr lecture only ONLINE	Full term	1 hr sync	1	WELD-6001
Yes - split	MATS-1021 - Ferrous Metallurgy	2	1 hr lecture only ONLINE	Full term	1 hr sync	1	MATS-6002

Total Credits for Term 1: 19

Total Online Hours for Student: 17 synchronous, 11 asynchronous

Term 2 – Summer 2021

Change	Original course code	Original Credit Weight	Part of Original course offered	Part of Term	Delivery Style	New Credit Weight	New Course Code
Yes - split	MECH-1072 - SPC & Metrology	3	2hr lab only	full	2 hrs sync	1	MECH-6008
Yes - split	MACH-1124 - Machining 1	2	2hr lab only	full	2 hrs sync	1	MACH-6004
Yes - split	WELD-1040 - Welding Technology 1	1	2 hr lab only	full	2 hrs sync	1	WELD-6002
Yes - split	MATS-1021 - Ferrous Metallurgy	2	2 hr lab only	full	2 hrs sync	1	MATS-6003
no	MECH-3035 - Practical Project	2	all	full	1 OL sync, 2 F2F		
no	WELD-1047 - Production Welding	3	all	full	2 OL sync, 2 F2F		
no	MACH-1144 - CNC Machining	3.5	all	full	2 OL sync, 3 F2F		
no	MECH-6006 - Industrial Automation	4.5	all	full	2 OL sync, 4 F2F		

Total Credits for Term 2: 17

Total Hours F2F Scheduled for the Student: 11

Total Hours Online Scheduled for the Student: 15 synchronous, no asynchronous

Appendix C – Modified SDAR

Degree Audit Report

Catalog: 2020/2021

Program:	PEM1	Name:	Practical Elements of Mechanical Engineering
Department:	MAN - Applied Science and Technology		
Academic Level:	PS		
CCD:	7 - 2AcadSem/600-700 hrs		
Credential:	Ontario College Graduate Cert		
Grade Scheme:	LG2		
Major:	PEM1 - Pract'l Elements of Mech'l Eng	Div:	MAN - Manufacturing Sciences Division
Co-Op Indicator:	N/A		

Academic Program Requirement

Total Credits:	36.00	Residency Reqmt:	9.00
GPA Requirement:	2.00	Residency Reqmt GPA:	2.00
Minimum Grade:	D		

Academic Requirement: PEM1.20 Practical Elements of Mechanical Engineering

Major: PEM1

Grade Scheme: LG2

Minimum GPA: 2.00

Minimum Grade:

Subrequirement: Level 1

Degree Audit Report

Take all of the following Mandatory Courses:

		Total Hours	Total Credits	GE
CADD-1054	Eng Drawing & BP Reading	30.00	2.00	
CADD-1055	CADD Fundamentals	45.00	1.50	
MACH-1124	Machining 1	45.00	2.00	DELETE (Split into 2 new courses)
WELD-1040	Welding Technology 1	45.00	2.00	DELETE (Split into 2 new courses)
MGMT-6098	Project Management	45.00	3.00	
ENGR-1026	Engineering Design 1	75.00	3.50	
MECH-1072	SPC & Metrology	60.00	3.00	DELETE (Split into 2 new courses)
MATS-1021	Ferrous Metallurgy	45.00	2.00	DELETE (Split into 2 new courses)
METH-1002	Technology in Industry	45.00	3.00	MOVED from Level 2
MECH-1090	Tool Design 1	30.00	1.00	MOVED from Level 2
MACH-6003	Machining 1	15.00	1.00	ADDED
MECH-6007	SPC & Metrology 1	30.00	2.00	ADDED
WELD-6001	Welding Technology 1	15.00	1.00	ADDED
MATS-6002	Ferrous Metallurgy 1	15.00	1.00	ADDED

Subrequirement: Level 2

Take all of the following Mandatory Courses:

		Total Hours	Total Credits	GE
WELD-1047	Production Welding	60.00	3.00	
MACH-1144	CNC Machining	75.00	3.50	
MECH-1090	Tool Design 1	30.00	1.00	MOVED to Level 1
MECH-6006	Industrial Automation	90.00	4.50	

Degree Audit Report

METH-1002 Technology in Industry	45.00	3.00	MOVED to Level 1
MECH-3035 Practical Project	45.00	2.00	
MACH-6004 Machining 2	30.00	1.00	ADDED
MECH-6008 SPC & Metrology 2	30.00	1.00	ADDED
WELD-6002 Welding Technology 2	30.00	1.00	ADDED
MATS-6003 Ferrous Metallurgy 2	30.00	1.00	ADDED

Subrequirement: Program Residency

Students Must Complete a Minimum of 9 credits in this program at Fanshawe College to meet the Program Residency requirement and graduate from this program

Approved By Chair/Manager:

Department and Date:

Approved by Dean:

Date:

General Education Approved By(as appropriate):

Date: