Prepared: Sasha Coleman Approved:

Course Code: Title	MCH221: HYDRAULICS SYSTEMS
Program Number: Name	4061: AVIATION TECHNOLOGY
Department:	AVIATION TECHNOLOGY
Semester/Term:	18W
Course Description:	Fluid power is used for power and control of many operations on aircraft. This course is intended to provide a fundamental understanding of fluid theory, fluid power, theory, component operations, circuit design and system troubleshooting.
Total Credits:	4
Hours/Week:	4
Total Hours:	4
Prerequisites:	MCH110
Essential Employability Skills (EES):	#1. Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. #2. Respond to written, spoken, or visual messages in a manner that ensures effective communication. #3. Execute mathematical operations accurately. #4. Apply a systematic approach to solve problems. #5. Use a variety of thinking skills to anticipate and solve problems. #6. Locate, select, organize, and document information using appropriate technology and information systems. #7. Analyze, evaluate, and apply relevant information from a variety of sources. #8. Show respect for the diverse opinions, values, belief systems, and contributions of others. #9. Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals. #10. Manage the use of time and other resources to complete projects. #11. Take responsibility for ones own actions, decisions, and consequences.
Course Evaluation:	Passing Grade: 50%, D
Other Course Evaluation & Assessment Requirements:	A+ 90 - 100% 4.00 A 80 - 89% B 70 - 79% 3.00

C 60 - 69% 2.00
D 50 - 59% 1.00
F (Fail) 49% and below 0.00

CR (Credit) Credit for diploma requirements has been awarded.
S Satisfactory achievement in field /clinical placement or non-graded subject area.
U Unsatisfactory achievement in field/clinical placement or non-graded subject area.
X A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.
NR Grade not reported to Registrar`s office.
W Student has withdrawn from the course without academic penalty.

Attendance:
Sault College is committed to student success. There is a direct correlation between academic performance and class attendance, therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
2 Practical Tests	15%
3 Assignments	15%
3 Written Tests	60%
Lab Reports	10%

Books and Required Resources:

Fluid Power with Applications by Anthony Esposito
Publisher: Pearson Edition: 7
ISBN: 13-978-0-13-513690-4

Course Outcomes and Learning Objectives:

Course Outcome 1.

Understand fundamental fluid principles.

Learning Objectives 1.

Determine solutions to assorted fluid mechanic problems.

Course Outcome 2.

Be familiar with terminology and schematics.

Learning Objectives 2.

Develop with sketches and calculations, basic hydraulic circuits using proper symbols.

Course Outcome 3.

Demonstrate knowledge of key components in fluid power systems.

	Learning Objectives 3. Identify components and explain their function. **Course Outcome 4.** Demonstrate knowledge of aircraft hydraulic systems. **Learning Objectives 4.** Study schematics and manufacturers` literature. **Course Outcome 5.** Understand basic aircraft control systems. **Learning Objectives 5.** Explain sequence of operation using electrical over hydraulic schematics. **Course Outcome 6.** Apply troubleshooting skills. **Learning Objectives 6.** Solve hydraulic problems using simulated scenarios.
Date:	Monday, January 22, 2018
	Please refer to the course outline addendum on the Learning Management System for further information.