

## OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

<b>Course Code and Number:</b> AMRT 303		<b>Number of Credits:</b> 6 <a href="#">Course credit policy (105)</a>																	
<b>Course Full Title:</b> Aircraft Rigging																			
<b>Course Short Title (if title exceeds 30 characters):</b> Aircraft Rigging																			
<b>Faculty:</b> Faculty of Applied and Technical Studies		<b>Department (or program if no department):</b>																	
<b>Calendar Description:</b> Students will learn about basic aircraft stability, and procedures for rigging cable-controlled and push-pull rod-controlled systems. There is also a lesson on working with powered flight control systems.																			
<b>Prerequisites (or NONE):</b>		Admission to the Aircraft Maintenance Engineer M-Licence certificate program.																	
<b>Corequisites (if applicable, or NONE):</b>		NONE																	
<b>Pre/corequisites (if applicable, or NONE):</b>		NONE																	
<b>Equivalent Courses (cannot be taken for additional credit)</b> Former course code/number: Cross-listed with: Equivalent course(s): <i>Note: Equivalent course(s) should be included in the calendar description by way of a note that students with credit for the equivalent course(s) cannot take this course for further credit.</i>		<b>Transfer Credit</b> Transfer credit already exists: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Transfer credit requested (OReg to submit to BCCAT): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (if yes, fill in transfer credit form) Resubmit revised outline for articulation: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No To find out how this course transfers, see <a href="http://bctransferguide.ca">bctransferguide.ca</a> .																	
<b>Total Hours: 90</b> <b>Typical structure of instructional hours:</b>		<b>Special Topics</b> Will the course be offered with different topics? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, different lettered courses may be taken for credit: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit <i>Note: The specific topic will be recorded when offered.</i>																	
<table border="1"> <tr><td>Lecture hours</td><td></td></tr> <tr><td>Seminars/tutorials/workshops</td><td>30</td></tr> <tr><td>Laboratory hours</td><td>60</td></tr> <tr><td>Field experience hours</td><td></td></tr> <tr><td>Experiential (practicum, internship, etc.)</td><td></td></tr> <tr><td>Online learning activities</td><td>0</td></tr> <tr><td>Other contact hours:</td><td></td></tr> <tr><td><b>Total</b></td><td><b>90</b></td></tr> </table>		Lecture hours		Seminars/tutorials/workshops	30	Laboratory hours	60	Field experience hours		Experiential (practicum, internship, etc.)		Online learning activities	0	Other contact hours:		<b>Total</b>	<b>90</b>	<b>Maximum enrolment (for information only):</b> <b>Expected frequency of course offerings (every semester, annually, every other year, etc.):</b>	
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<b>Department / Program Head or Director:</b> Rolf Arnold		<b>Date approved:</b> March 2017																	
<b>Faculty Council approval</b>		<b>Date approved:</b> March 2017																	
<b>Campus-Wide Consultation (CWC)</b>		<b>Date of posting:</b> April 13, 2017																	
<b>Dean/Associate VP:</b> John English		<b>Date approved:</b> March 2017																	
<b>Undergraduate Education Committee (UEC) approval</b>		<b>Date of meeting:</b> April 21, 2017																	

**Learning Outcomes**

Upon successful completion of this course, students will be able to:

- Explain aircraft stability and control
- Describe aircraft surface balancing procedures
- Perform cable installation, adjustment, and rigging procedures
- Perform push-pull rod installation, adjustment, and rigging procedures
- Describe adjustments for hydraulically powered flight control systems

**Prior Learning Assessment and Recognition (PLAR)**

Yes  No, PLAR cannot be awarded for this course because Transport Canada Approval restricts PLAR

**Typical Instructional Methods (guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion)**

Presentations, online lessons, practical lab, and workshop exercises.

**Grading system:** Letter Grades:  Credit/No Credit:  Labs to be scheduled independent of lecture hours: Yes  No

**NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.**

**Typical Text(s) and Resource Materials (if more space is required, download Supplemental Texts and Resource Materials form)**

Author (surname, initials)	Title (article, book, journal, etc.)	Current ed.	Publisher	Year
1. Jeppesen	A&P Technician – General Textbook & Workbook	<input checked="" type="checkbox"/>	Jeppesen	2011
2. Jeppesen	A&P Technician – Airframe Textbook & Workbook	<input checked="" type="checkbox"/>	Jeppesen	2011
3. AC43.13-1B/2B	Federal Aviation Administration	<input checked="" type="checkbox"/>	US DOT	2008
4. GAH Company	General Aircraft Hardware Company-Handbook	<input checked="" type="checkbox"/>	GAH Company	2016
5. Jeppesen	A&P Technician – Powerplant Textbook & Workbook	<input checked="" type="checkbox"/>	Jeppesen	2011

**Required Additional Supplies and Materials (software, hardware, tools, specialized clothing, etc.)**

- Basic toolbox
- Coveralls
- Personal safety equipment (PPE)

**Typical Evaluation Methods and Weighting**

Quizzes/tests:	50%	Shop work:	50%	Total:	100%
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**Details (if necessary):**

The tests and shop work cannot be averaged – both sections must achieve a 70% grade to meet the minimum Transport Canada requirements.

**Typical Course Content and Topics:****COURSE COMPONENTS:**

- A1 Review Aircraft Axis
- A2 Review Aircraft Stability
- A3 Describe flight controls
- B1 Describe cable construction
- B2 Perform cable maintenance and testing
- C1 Describe push-pull rod control systems
- C2 Perform push-pull rod system rigging
- D1 Describe powered flight control systems
- D2 Describe safety precautions for powered flight controls

**LEARNING STEPS:**

- Attend lectures and complete online lessons
- Perform worksheets and projects as described
- Perform projects to an acceptable level (pass/fail)
- Complete theory exams with a minimum grade of 70%

**PRACTICAL EXERCISES:**

Practical assessments must indicate a "pass" to provide proof of competency:

- AMRT 303-P1 (Cable Control System Inspection)
- AMRT 303-P2 (Cable Control System Rigging)
- AMRT 303-P3 (Perform Cable Repair)
- AMRT 303-P4 (Hydraulically Powered Controls-Worksheet)

**THEORY EXAMINATION(S):**

Formative exams and quizzes throughout the course:

- AMRT 303-T1 (Stability and Control)
- AMRT 303-T2 (Cable Controlled Systems)
- AMRT 303-T3 (Push-Pull Rod Controlled Systems)
- AMRT 303-T4 (Hydraulically Powered Control Systems)