LAWS: Multi-crew Pilot Licence (MPL)

Module Title:	Multi-crew Pilot Licence (MPL)
Language of Instruction:	English

Credits:	20

NFQ Level:	7

Module Delivered In	1 programme(s)

Teaching & Learning Strategies:	Teaching will be conducted using briefings and practical work in an aircraft simulator. At the end of each practical section, students will be debriefed as to their progress and will be graded accordingly.

Module Aim:	To provide a student with a multi-crew pilot licence (MPL) by training one to the level necessary to operate as a co-pilot in a multi-engine, multi-pilot, turbine-powered commercial air transport aeroplane under visual flight rules (VFR) and instrument flight rules (IFR).

Learning Outcomes	
On successful completion of this module the learner should be able to:	
LO1	Perform core flying skills (specific basic single-pilot training)
LO2	Peform basic flying skill in a multi-crew operation under instrument flight rules.
LO3	Apply multi-crew operations to a multi-engine turbine aeroplane certified as a high performance aeroplane.
LO4	Achieve a Type Rating within an airline environment.

Pre-requisite learning
Module Recommendations *This is prior learning (or a practical skill) that is recommended before enrolment in this module.*
No recommendations listed
Incompatible Modules *These are modules which have learning outcomes that are too similar to the learning outcomes of this module.*
No incompatible modules listed
Co-requisite Modules
No Co-requisite modules listed
Requirements *This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.*
No requirements listed

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Module Content & Assessment

Indicative Content
Flight Controls Rolling, Yawing, Pitching, Power Adjustment, Mixture Adjustment.
Human Performance Principles. Cooperation, Leadership and management skills, situation awareness, decision making.
Flying Take-Off, Climb, Cruise, Descend, Landing, Short field landing,
Aircraf ground and pre-flight Operations. demonstrate attitudes and behaviours appropriate to the safe conduct of flight, including recognising and managing potential threats and errors; perform dispatch duties; provide flight crew and cabin crew briefings; perform pre-flight checks anmanage abnormal and emergency situationsd cockpit preparation: perform engine start, perform taxi out: communicate with cabin crew, passengers and company
Airmanship Lookout, Aircraft Management, Radio procedures, Cockpit management, scanning instruments.
Take-off Take-off and predeparture preparation; perform take-off roll; perform transition to instrument flight rules; perform initial climb to flap retraction altitude; perform rejected take-off; perform navigation; manage abnormal and emergency situations;
Emergenices Stalls, Simulated single engine failure, slow flight, loss of communication procedures. Stalls with and without power, instrument failure, Adverse weather procedures, abnormal attitude recovery, critical attitudes.
Climb SID, complete climb procedures and checklists; modify climb speeds, rate of climb and cruise altitude; perform systems operations and procedures; manage abnormal and emergency situations; communicate with cabin crew, passengers and company;
Navigation VFR Navigation, Cross Country. IFR Cross Country, Holding patterns, Circling, distance to a Navaid station, SID, STAR.
Cruise Monitor navigation accuracy; monitor flight progress; perform descent and approach planning; perform systems operations and procedures; manage abnormal and emergency situations; communicate with cabin crew, passengers and company;
ADF Orientation, Relative bearing, Homing, Station passage, QDM/QDR concept and practice, Limitations, Holding patterns, Type of holdings, Different holding entries (EM-30 / EM-31), Wind drift correction techniques, ADF approaches
Descent Initiate and manage descent; monitor and perform en route and descent navigation; monitor and perform en route and descent navigation; perform holding; perform systems operations and procedures; manage abnormal and emergency situations; communicate with cabin crew, passengers and company;
VOR / DME Orientation and interpretation, Concept, demonstration and practice of radial, heading and course, Station passage, TO/FROM concept and practice, Limitations.
Approach Execute approach according to procedures and situation; perform precision approach; perform non-precision approach; perform approach with visual reference to ground; monitor the flight progress; perform systems operations and procedures; manage abnormal and emergency situations; perform missed approach and goaround; communicate with cabin crew, passengers and company;
ADF/ VOR/DME Concept of position fixing and radio fixing, Demonstration and practice with two lines of position fixing, Relationship among OBS/HEADING/CDI, in the different phases of the holding entries.
Landing Land the aircraft; Perform systems operations and procedures; manage abnormal and emergency situations.
ILS ILS, CDI versus localizer
Post Flight Operations. Perform taxiing and parking; perform aircraft post-flight operation; perform systems operations and procedures; manage abnormal and emergency situations; communicate with cabin crew, passengers and company.
Navigation IFR Cross Country, Holding patterns, Circling, distance to a Navaid station, SID, STAR
Threat and error management. The components of the TEM model; Threats, Errors, Undesired aircraft states; Countermeasures;
Airmanship Cockpit management, scanning instruments

Assessment Breakdown	%
Practical	100.00%

No Continuous Assessment

No Project

Practical				
Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Practical/Skills Evaluation	Skills test	1,2,3,4	100.00	n/a

No End of Module Formal Examination

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

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Module Workload

Workload: Full Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
Practicals	Every Week	4.00
	Total Hours	4.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_EEPLT_D	Bachelor of Science in Pilot Studies	5	Group Elective 2