

Course Title	Aviation Psychology and Human Factors				
Course Code	AVM410				
Course Type	Compulsory				
Level	Bachelor (1 st cycle)				
Year / Semester	4 th Year / 1 st Semester				
Instructor's name	TBA				
ECTS	6	Lectures / week	3 Hours/ 14 Weeks	Laboratories / week	None
Course Purpose and Objectives	<p>The study of human factors is about understanding human behavior and performance. When applied to aviation operations, human factors knowledge is used to optimize the fit between people and the systems in which they work in order to improve safety and performance. The purpose of Aviation Psychology course is to provide students with the knowledge of the human factors affecting aviation. The course aims to cover subjects like human factors in aviation, crew resource management, stress and burn out syndrome in pilots.</p>				
Learning Outcomes	<p>Upon successful completion of this course students should:</p> <ul style="list-style-type: none"> • Discuss the effect and management of human factors in aviation • Analyze the history, theories and scientific findings of human factors in aviation • Demonstrate new decision-making and social skills to better manage the prevention or consequences of human error on the job 				
Prerequisites	None	Co-requisites	None		
Course Content	<p>The material included in this course cover the following subjects:</p> <ul style="list-style-type: none"> • History and definitions of human factors • Human Information Processing in Aviation • Decision Making and Error in Aviation • The relationship between human factors, safety and efficiency • The role of human factors in system design, operations, management and safety 				

	<ul style="list-style-type: none"> • Models of human factors analysis: <ul style="list-style-type: none"> - James Reason's human error theory - Human Factors Analysis and Classification System (HFACS) model • Performance limitations/ Fatigue and stress and how to manage them • Human information processing • Models and methods of human error analysis/Threat and Error Management (TEM) • Selection. Stress and Stressors • Applying human factors to operational situations <ul style="list-style-type: none"> - Crew Resource Management (CRM)
Teaching Methodology	Face-to face
Bibliography	<ul style="list-style-type: none"> • Monica Martinussen, David R. Hunter. <i>Aviation Psychology and Human Factors</i>. 1st Edition. 2009. ISBN 978-1439808436 • US Air Force. <i>Crew Resource Management (CRM) Basic Concepts</i> - Scholar's Choice Edition Paperback – February 16, 2015. ISBN 978-1297043604. • Jean Denis Marcellin. <i>The Pilot Factor: A fresh look into Crew Resource Management</i>. Paperback – May 17, 2014. ISBN 978-1497374614. • Harry W. Orlady, Linda Orlady. <i>Human Factors in Multi-Crew Flight Operations</i>. Routledge. 978-0291398390 • Daniel E. Maurino., James Reason, Neil Johnston, Rob B. Lee. <i>Beyond Aviation Human Factors: Safety in High Technology Systems</i>. Ashgate Publishing. 2014. ISBN 978-1-84014-948-7 <p><u>Additional readings</u></p> <ul style="list-style-type: none"> • Beaubien J.M. & Baker, D.P. (2002). A Review of Selected Aviation Human Factors Taxonomies, Accident/Incident Reporting Systems and Data Collection Tools. <i>Int J of Appl Aviat Studies</i>,11-36. • Bedny, G. & Meister, D. 1999. Theory of activity and situation awareness. <i>Int J cognitive ergonomics</i> 3 (1) 63-72. • Berlin, J. I., Grnkr, E. V., Jensen, P. K., Holmes, C. W., Lau, J. R., Mills, J. W., & O'Kane, J. M. (1982). <i>Pilot judgment training and evaluation</i> (Vols. 1-3). Washington, DC: FAA Technical Report, DOT/FAA/ICT-82/56.

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Assessment	<table border="1"><tr><td data-bbox="472 191 1011 268">Examinations</td><td data-bbox="1011 191 1489 268">60%</td></tr><tr><td data-bbox="472 268 1011 306">Assignments</td><td data-bbox="1011 268 1489 306">30%</td></tr><tr><td data-bbox="472 306 1011 344">Participation</td><td data-bbox="1011 306 1489 344">10%</td></tr><tr><td data-bbox="472 344 1489 417"></td><td data-bbox="1011 344 1489 417">100%</td></tr></table>	Examinations	60%	Assignments	30%	Participation	10%		100%
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Language	English								