AIRCRAFT FLIGHT OPERATIONS Course

Course Introductions Prof. Marco ROSATI¹

Whatever the sector of industrial activity and the relative national strategies adopted, **the academic studies should be reviewed in the light of the socio-economic logic**, which has changed considerably over the past thirty years.

The **notional and theoretical culture**, which has characterized the school of "elite" "Made in Italy" and which has produced widespread opinions of esteem, especially among academic circles, **must be complemented with the "culture of work**". The aeronautical sector - characterized by a sophisticated technological level and continuous evolution - is above all the more sensitive to this need for which preparation and **high professionalism of the workers are an essential requirement**, especially if we consider the consequences on the safety levels of aeronautical activities.

With regard to the issue of safety, another consideration must also be made: the **strong growth of the air transport sector combined with the economic pressures** applied to make the product more and more competitive, could lead to attempts of reducing the investment in competences with consequent recruitment and qualification of low profile for professionalism whose work has a major impact on safety.

The importance of education/training also lies in its decisive impact on the **productivity and effectiveness of organizations**. The future policy for education and training should find a permanent reference in the production context and acquire a level of flexibility capable of satisfying the demands of the market, **providing new competence and professionalism or practical manual skills according to individual attitudes and, for all, skills and stimuli that allow the individual to broaden the field of their views**.

In a world of work that is experiencing the transition from Taylorism to the "**centrality of man**", the traditional teaching subjects, which will form the core of the necessary individual professional skills, will have to be complemented with **training interventions aimed at developing new methods of analysis of complex systems and training logics for team working**: in other words it is a process of generating a new class of workers,

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loudly requested by the market, which expert researchers of the world of work have defined **the knowledge workers**, capable of making a significant contribution to developing a business and its competitiveness or of improving services for the community, in the perspective of a lasting strengthening of the country system or, better in this period, **recovery of the productive system**.

But finding qualified and experienced professionals is not so easy for the industry (airlines and other companies).

The effort done also with this course is to fill the gap between the education system and the production realities: traditional professional profiles, as the pilot or the maintenance specialist, should be adapted to the new market needs and updated to meet current requirements European regulations, while there are absolutely no new or emerging professional profiles such as the quality systems officer or the Aviation Manager. <u>Curricula should be redesigned to be more usable by the Companies who</u> should not be obliged to carry out ab initio training on their own for new hired workers.

The objective of this course **to provide aspiring aviation leaders with the basic elements of management of the aviation industry**; the students will gain skills to understand the means to make the organizational structures compliant with applicable regulation but also the importance to reach a right balance with Best Practices to achieve safe and profitable operations and to cope with future management challenges.

Many universities have established degree courses in Aeronautical Engineering with curricula in Production and Design with a high level of specialization (structural, aerodynamic, propulsive-plant engineering); the possibilities of employment for these types of high professionalism are however very limited. The challenges for the future are not only in the technology but also in the new capability to manage this new technology.

It is therefore essential for the aeronautical community, that academic studies would be targeted to the various specializations, with professional paths directly connected to production activities and responding to the needs of a rapidly changing professional market.

Some of the most advanced aeronautical realities in the world, the United States, Great Britain, France, have for some time equipped themselves with effective state training models that are well integrated with the production reality of those countries.