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**E-LEARNING IMPROVEMENT
IN AIR FORCE APPLICATION SCHOOL**

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1.Introduction

The “Aurel Vlaicu” Air Force Application School assures the initiation in career of the students (officers) who graduated "Henri Coandă" Air Force Academy and of those who were hired from external source (indirect career).

Air Force training and education programs are designed to develop well trained officers, enlisted and civilian personnel in the critical thinking skills and technical expertise demanded by today's military challenges. E-learning enhances traditional course development by blending the latest and best information and technology available with legacy systems and methods. Resident program curricula can be enhanced by reusing products developed and utilizing technology insertion in training and education programs.

The Chief Information Officer (CIO) at the Air Force Application School must have primary responsibility to ensure that Information Technology (IT) is acquired and information resources are managed in a manner consistent with statutory, regulatory, and School requirements and priorities. The CIO must provide management advice and assistance to the Commander Deputy and to other compartments chiefs on information resources investment and operations. The CIO also promotes a shared corporate vision about the compartment's information activities and provides services to effectively manage information and to provide value-added systems and infrastructure.

2.Current Available Resources

Physical Facilities:

- Computers renewed on four-yearly schedule
- Discipline specific labs (32 computers) and general access labs (40 computers)
- Local network (Intranet)

Software and Electronic Communication

- Email, FTP and print-servers
- Course management systems (WebCT)
- Web based file servers (only in Intranet)
- Courseware CD ROMs
- Software collections

Services

- A library with electronic reserves, beginning access to e-books, and many online databases (some full text, most accessible on INTRANET)

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- Online training (CBT) and documentation for over 15 courses.
- Online registration for students
- Online exam server

3. Vision, strategic direction and goals

3.1. Vision

Provide knowledge anywhere and anytime for our students.

Students must develop the knowledge and skills to make effective use of digital resources and services during their training program and in their careers. Students engaging in e-learning need the resources, instruction, and interaction with peers, staff, and necessary assistance all available at the desktop, in campus, in classrooms, study locations. Teaching and learning to meet this set of e-learning priorities requires:

- virtual library and information service, with universal access and universal support;
- an integrated approach to information resources, services and technology;
- a robust and flexible network;
- universal access to requisite technologies and services;
- support and resources for the e-learning community.

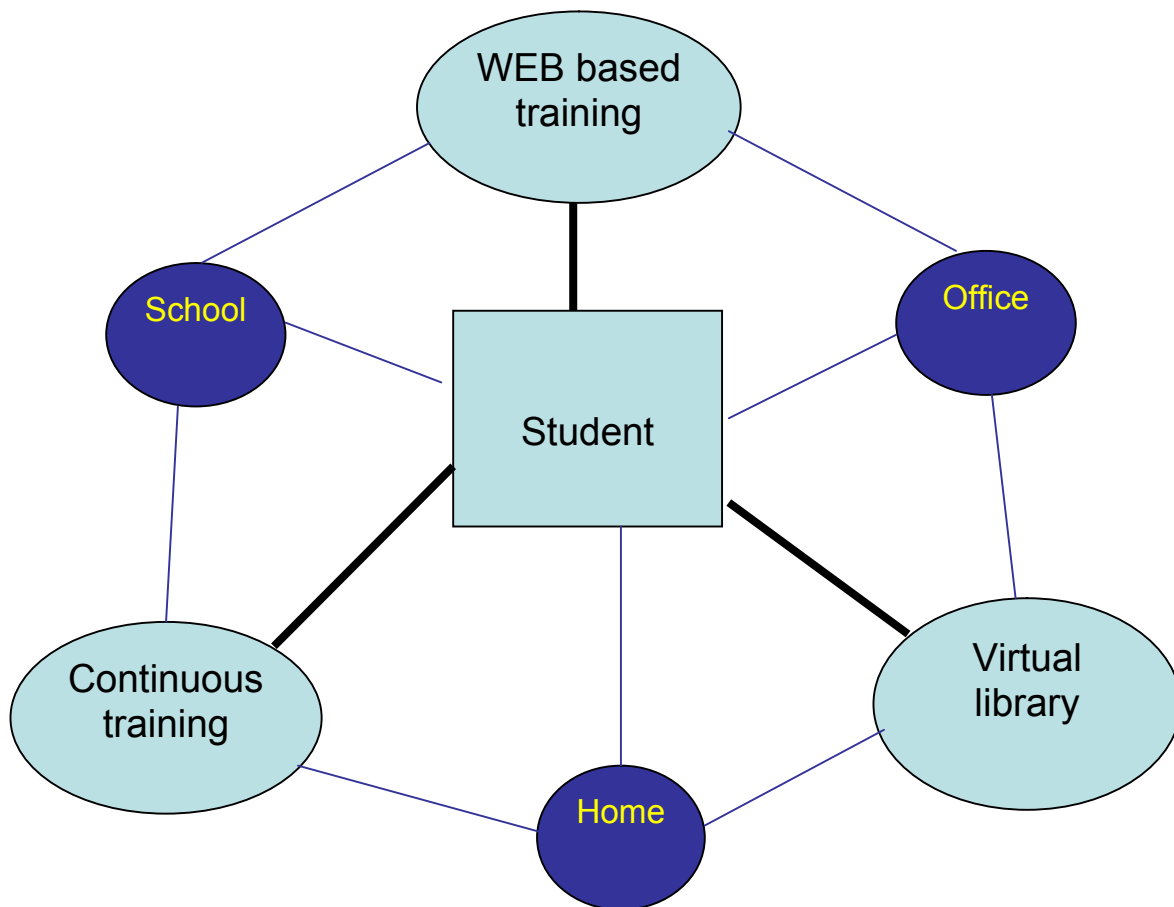


Fig.1 AFAS E-learning VISION

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3.2. Strategic Direction and Goals

We seek to support e-learning through sweeping change that includes the following strategic goals:

- support learning by delivering information resources, support and services in all forms (books, journals, newspapers, multimedia, etc) directly to student whether local or distant;
- develop and implement the process of moving from library and information resources, services and support originally conceived and manifested in buildings to a system that is functionally oriented, in which emphasis is on library and information resources, services and support delivered to students wherever they may be.
- Identify the development of student information and technology literacy as one of our highest priorities. Students must enter the university with requisite information and technology skills, or learn appropriate material prior to the beginning course. SAFA must integrate resources for e-learning into their curricula and across their programs.

4. Suggested Action Steps

- **Provide Enhanced Library Services for the E-Learning Environment**
 - a. Expand availability and use of customized information portals (Library, Course, Exam). This should be done in conjunction with the SAFA planned portal.
 - b. Refocus interactions among teachers, information technology personnel and librarians to work as teams to provide user services, user education and user assistance.
- **Support Student Learning and Development through Technology**
 - a. Develop wireless access.
 - b. Investigate the possibility and feasibility of developing a laptop purchase plan for teachers and students.
 - c. Increase Internet-based access.
- **Support E-Learning Course Development and Delivery**
 - a. Develop a proactive environment to support the advancement of e-learning.
 - Support the development of a virtual campus that complements the traditional, physical campus
 - Establish an institutionalized program, similar to that for textbooks, for the acquisition and dissemination of course related software
 - Work with Networking, Desktop Support, and Training Services to determine infrastructure needs.
 - b. Prepare a plan for promoting the integration of e-learning into curricula by teachers and staff.
 - Meet with teachers, staff and students to gather ideas
 - Assess teachers, staff, and student needs
 - Assign Committee to create the plan
 - Develop e-learning instructional design and development teams. Teams will:

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- have expertise in instructional design, information organization and access, Web development, distance education, courseware, and software;
 - create awareness and work closely with training departments to integrate e-learning in the curriculum ;
 - be available for scheduled work on development projects;
 - include instructional designers, librarians, Web developers, and student technical assistants.
- **Support Development**
 - a. Intensify development of information and technology literacy through workshops, computer based training and customized information access.
 - b. Develop a proactive environment to support teachers and staff development in e-learning areas.
 - Develop infrastructure for teachers and staff to promote efficient use of technology for teaching and learning
 - Share information concerning e-learning initiatives among groups and individuals
 - Work to identify grant funding opportunities
 - c. Address intellectual property issues.
 - d. Create a reward system to support the use of technology in the classroom.
 - Rewards should include time, support, and other incentives.
 - Integration of technology in the classroom must also be rewarded in the merit, promotion.
 - **Expand support for both on-campus and off-campus learners**, beyond a standard 7:45 a.m. to 4:30 p.m. work day.

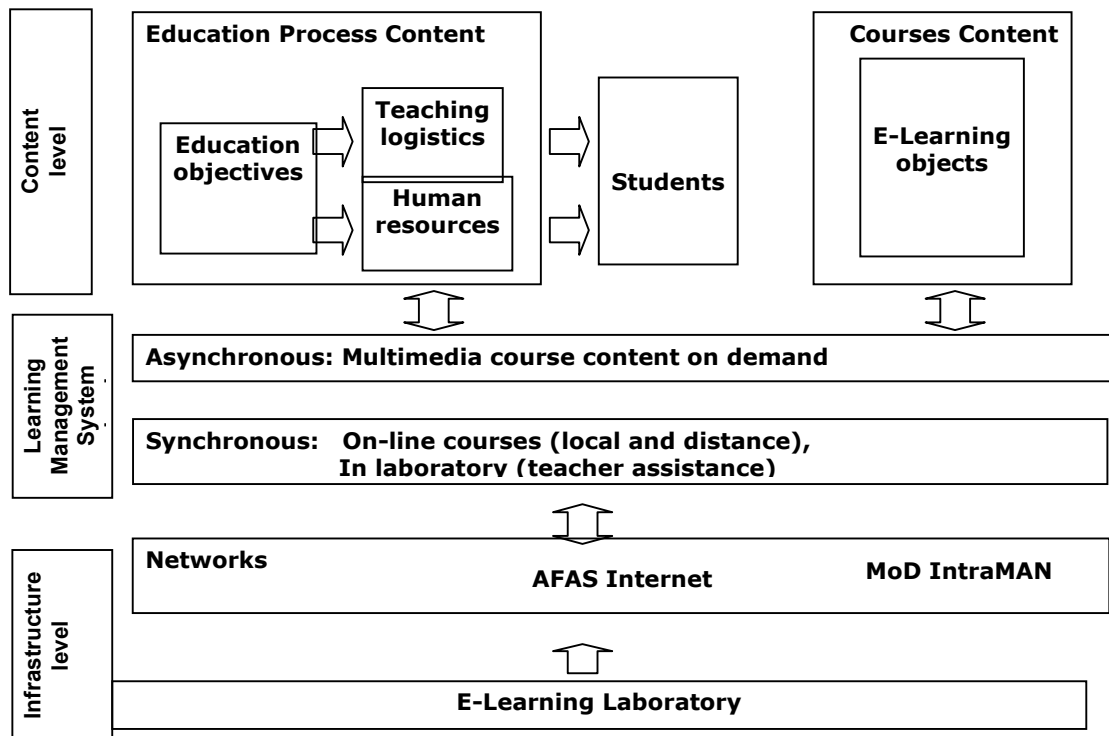


Fig.2 AFAS E-learning model

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5.Resources Needed For E-Learning

Continual Improvement of the Campus Infrastructure to Include:

- a stable network;
- network access from non-instructional spaces, including public areas (only for unclassified material);
- adequate bandwidth;
- multimedia production equipment & software.

Consistent and Reliable Support for E-learning, to Include:

- predictable and adequate funding sources for staffing, project development, and technology resources;
- additional staffing for instructional design teams;
- technical support and training available on campus, off campus, via email, Web, phone, in person;
- regular replacement and maintenance of resources;

6.Conclusions

Instructional strategies used to incorporate e-learning should be tracked and evaluated to determine their effectiveness in improving learning outcomes, while containing costs. It is recognized that although it is desirable to reduce costs, learning outcomes must be maintained or improved. During this process, it will be recognized that instructors who explore new instructional methods require time and appropriate support to develop, pilot, and revise their practice.

All instructors should be able effectively to identify, acquire, and integrate learning objects. This will be achieved through a combination of enhanced professional development activities about digital resources and the ongoing support of e-learning specialists.

Successful preparation for online learning is not significantly different from classroom preparation. As with any new concept, however, it is important for an instructor to communicate how existing practices integrate with a new concept (learning online). In an era of "lifelong learning", skills for acquiring knowledge play a greater role in success than do knowledge concepts (as they often cycle to obsolescence).

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