



Exploitation plan for  
the ALIEN problem-based learning laboratory  
at the Mean Chey University (MCU)

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## Content

1. Name of the lab.....	3
2. Faculty in which the lab belongs.....	4
3. Purpose of the lab.....	5
3.1 Guidelines for use .....	5
3.2 Activities and courses .....	6
4. Resources .....	7
4.1 Equipment .....	7
4.2 Staffing.....	7
4.3 Financial support .....	7
References.....	9

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## 1. Name of the lab

The name of the problem-based lab installed for the ALIEN project is “ALIEN’s PBL Lab”. The students use the lab for applied practice, as demonstrated in the following pictures demonstrate the lab space.



**Figure 1. The ALIEN project PBL Laboratory.**

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## D5.7 ALIEN SUSTAINABILITY PLAN

### ALIEN LABORATORY EXPLOITATION PLAN

## 2. Faculty in which the lab belongs

This ALIEN PBL Lab belongs to the faculty of Science and Technology at Mean Chey University. It is used by students and educators for applied theory and practice. Also, other faculties may use the lab for activities related to their courses. Following is an organogram of Mean Chey University that demonstrates the link of the PBL lab to the organization's overall activities.



Figure 2. Faculty Science and Information in charge of ALIEN PBL's Lab.

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### 3. Purpose of the lab

The PBL Lab aims to promote active learning deployment among students. The PBL lab offers equipment and software facilities. The staff that uses the PBL lab for teaching applies the experience and knowledge developed through the ALIEN project. The teachers promote active learning by using the PBL Lab for introducing problems to students. Students solve the problems in the PBL Lab, increasing their exposure to active learning.

#### 3.1 Guidelines for use

The PBL Lab may be used for the instruction of any course in the Faculty of Science and Technology. It is further openly available to all instructors of the Information Technology Center (ITC).

Further support is provided by a Laboratory and Network Administrator who is in charge of the maintenance and operation of the lab. To use the lab, an instructor is required to contact the administrator to reserve the room. The administrator provides guidelines to the instructor on the use the lab. The administrator may also support the instructor to setup additional software on the lab's equipment to support the implementation of active and problem-based learning in his/her classroom.

The ALIEN's PBL Lab's capacity is approximately 25 students working in 5 groups. Each group is allocated one PC and one Smart 42 inches TV that is used as a projector. The equipment is installed on a table with 5 chairs, with a total of 5 tables in the room. A LDC Projector may be used to display a problem and explanations to students. The students may display their findings for the benefit of all in class. All PCs are connected to the internet.

An example of using the PBL Lab is as follows: In the context of Business Statistics course, in which 42 year 2 students are enrolled, the teacher displays a problem on the screen and the students solve the problem in groups.

586297-EPP-1-2017-1-EL-EPPKA2-CBHE-JP

### 3.2 Activities and courses

Following are subjects that already use ALIEN's PBL Lab.

1. Visual Basic programming.
2. Information System Analysis Design.
3. Internet Programming HTML.
4. Computer Network.
5. Data Structure.
6. Data Base System.
7. Java Programming.
8. Client- Server Computer.
9. Applying Statistic.
10. Basis Accounting.

Detailed descriptions of course content and the implementation of active and problem-based learning in each is available on the ALIEN project Evaluation of the Implementation Phase Report.

Activities will continue beyond the end of the ALIEN project implementation. Activities will be coordinated by the Faculty of Science and Technology and supported by the Information Technology Center. The role of the Information Technology Center is maintaining the PBL Lab and promoting its use to other faculties. This approach allows the continued use of the PBL Lab by students in courses even after the completion of the ALIEN project.

586297-EPP-1-2017-1-EL-EPPKA2-CBHE-JP



## 4. Resources

### 4.1 Equipment

The hardware acquired in the framework of the ALIEN project consists of 6 Dell Computers, 5 Mobile Stands, 1 LCD Projector, 2 Laptops, and 1 WiFi Router Link.

Specifically, the following equipment is available in the laboratory:

- 6 Dell Computers.
- 5 Mobile Stands.
- 2 Laptops.
- 1 LCD Projector.
- 1 WiFi Router.

### 4.2 Staffing

The ALIEN's PBL Lab belongs to the Information Technology Center supported by the Faculty of Science and Technology. The Information Technology Center is responsible for the operation and maintenance of all labs and the network infrastructure of the department. The ALIEN's PBL Lab will be maintained by a Laboratory and Network Administrators.

### 4.3 Financial support

Given that the ALIEN's PBL Lab belongs to the Information Technology Center, it will be maintained through the regular operation costs of the department. The cost of operation will be covered by Mean Chey University and the Ministry of Education, Youth, and Sport (MoEYS). The cost includes:

1. The recruitment of a Laboratory and Network Administrators for the maintenance and operation of the lab and network infrastructure.
2. The equipment maintenance costs and laboratory consumables.

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## **D5.7 ALIEN SUSTAINABILITY PLAN**

### **ALIEN LABORATORY EXPLOITATION PLAN**

Normally, equipment and electronic devices are replaced after 5 years of usage. The funds for renewing the equipment will be provided at the time of replacement by MoEYS program budget (PB).

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## References

1. ALIEN project report on the Evaluation of the Implementation Phase, on-line at:  
<http://projectalien.eu/index.php/project-reports/>

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