subject
103000837 - E Health: Promoting Active And Healthy Ageing

degree programme
10AX - Master Universitario Innovación Digital Ciencia de Datos Itinerario Health

academic year & semester
2020/21 - Semester 1
# Index

## Learning guide

1. Description...............................................................................................................................................................1
2. Faculty.....................................................................................................................................................................1
3. Prior knowledge recommended to take the subject..................................................................................................2
4. Skills and learning outcomes ...................................................................................................................................2
5. Brief description of the subject and syllabus.............................................................................................................3
6. Schedule..................................................................................................................................................................4
7. Activities and assessment criteria............................................................................................................................6
8. Teaching resources..................................................................................................................................................7
9. Other information.....................................................................................................................................................8
1. Description

1.1. Subject details

| Name of the subject | 103000837 - E Health: Promoting Active And Healthy Ageing |
| No of credits | 4.5 ECTS |
| Type | Optional |
| Academic year of the programme | Second year |
| Semester of tuition | Semester 3 |
| Tuition period | September-January |
| Tuition languages | English |
| Degree programme | 10AX - Master Universitario Innovación Digital Ciencia de Datos Itinerario Health |
| Centre | 10 - Escuela Tecnica Superior de Ingenieros Informaticos |
| Academic year | 2020-21 |

2. Faculty

2.1. Faculty members with subject teaching role

| Name and surname | Office/Room | Email | Tutoring hours * |
| Cristian Moral Martos | 5110 | cristian.moral@upm.es | M - 10:00 - 12:00  
M - 14:00 - 15:00  
W - 12:00 - 15:00  
Please, ask for an appointment |
| Elena Villalba Mora (Subject coordinator) | 5110 | elena.villalba@upm.es | M - 10:00 - 12:00  
W - 10:00 - 12:00  
F - 12:00 - 14:00  
Please, ask for an appointment |
The tutoring schedule is indicative and subject to possible changes. Please check tutoring times with the faculty member in charge.

### 3. Prior knowledge recommended to take the subject

#### 3.1. Recommended (passed) subjects

The subject - recommended (passed), are not defined.

#### 3.2. Other recommended learning outcomes

- User Centred Design. User Experience basic knowledge.

### 4. Skills and learning outcomes *

#### 4.1. Skills to be learned

CB07 - Que los estudiantes sepan aplicar los conocimientos adquiridos y su capacidad de resolución de problemas en entornos nuevos o poco conocidos dentro de contextos más amplios (o multidisciplinares) relacionados con su área de estudio

CE-HMDA07 - Capacidad para diseñar y gestionar proyectos de salud y datos médicos

CG07 - Capacidad de trabajar y comunicarse también en contextos internacionales.
4.2. Learning outcomes

RA50 - Apply techniques for modelling the context of use

RA51 - Evaluate the usability of prototypes

RA48 - Understand how user-centred design methods are used in non-academic environments

RA49 - Apply techniques for designing and implementing prototypes of different fidelity levels

* The Learning Guides should reflect the Skills and Learning Outcomes in the same way as indicated in the Degree Verification Memory. For this reason, they have not been translated into English and appear in Spanish.

5. Brief description of the subject and syllabus

5.1. Brief description of the subject

The main focus of this subject is achieving an understanding of the necessary models, techniques and architectures that allow the development of interactive systems in the E-health domain. Topics to be covered include eHealth, eInclusion, co-production of health, empowerment, social innovation, social networks, serious games, and participation in society.

5.2. Syllabus

1. Active and Health Ageing
   1.1. Course introduction
   1.2. Definition and frameworks

2. Clinical perspective

3. Political perspective

4. Social and personal perspective

5. Intrinsic capacity and frailty

6. Cognitive Decline and Mild Cognitive Impairment

7. Active and Healthy Ageing Project
## 6. Schedule

### 6.1. Subject schedule*

<table>
<thead>
<tr>
<th>Week</th>
<th>Face-to-face classroom activities</th>
<th>Face-to-face laboratory activities</th>
<th>Distant / On-line</th>
<th>Assessment activities</th>
</tr>
</thead>
</table>
| 1    | 1. Active and Healthy Ageing: 1.1 Course introduction 1.2. Definitions and frameworks  
  Duration: 02:00 | 1. Active and Healthy Ageing: 1.1 Course introduction 1.2. Definitions and frameworks  
  Duration: 02:00 |  |  |
| 2    | 2. Clinical perspective. 2.1 Fundamentals of ageing  
  Duration: 02:00 | 2. Clinical perspective. 2.1 Fundamentals of ageing  
  Duration: 02:00 |  |  |
| 3    | 3. Political perspective.  
  Duration: 00:30 | 3. Political perspective.  
  Duration: 00:30 | Assignment of political perspective  
 Continuous assessment  
 Presental  
 Duration: 01:30 |  |
| 4    | 4. Social and personal perspective  
  Duration: 02:00 | 4. Social and personal perspective  
  Duration: 02:00 |  |  |
| 5    | 7. Introduction to AHA project  
  Duration: 02:00 | 7. Introduction to AHA project  
  Duration: 02:00 |  |  |
| 6    | 5.1. Intrinsic capacity and Frailty. 5.2. Technological solutions to prevent, predict and manage functional decline  
  Duration: 02:00 | 5.1. Intrinsic capacity and Frailty. 5.2. Technological solutions to prevent, predict and manage functional decline  
  Duration: 02:00 |  |  |
| 7    | 6.1. Cognitive decline and Mild Cognitive Impairment. 6.2. Technological solutions to prevent, predict and manage cognitive decline  
  Duration: 02:00 | 6.1. Cognitive decline and Mild Cognitive Impairment. 6.2. Technological solutions to prevent, predict and manage cognitive decline  
  Duration: 02:00 | Assessment. AHA Project: Planification of the observation of the context of use  
 Continuous assessment  
 Not Presental  
 Duration: 02:00 |  |
| 8    | 7. AHA Project. 7.1. Topic choice and planning of context of use observation  
  Duration: 02:00 | 7. AHA Project. 7.1. Topic choice and planning of context of use observation  
  Duration: 02:00 |  |  |
| 9    | 7.2 Observation, analysis and specification of context of use  
  Duration: 02:00 | 7.2 Observation, analysis and specification of context of use  
  Duration: 02:00 |  |  |
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 10 | Assessment. AHA Project: Context of use | Continuous assessment  
Presential  
Duration: 02:00 |
| 11 | 7.3 Design and implementation of a prototype  
Duration: 02:00 | 7.3 Design and implementation of a prototype  
Duration: 02:00 |
| 12 |   | Assessment. AHA Project: prototype  
Continuous assessment  
Presential  
Duration: 02:00 |
| 13 | 7.4 Evaluation of the prototype. Expert evaluation of heuristics  
Duration: 02:00 | 7.4 Evaluation of the prototype. Expert evaluation of heuristics  
Duration: 02:00 |
| 14 | 7.5 Analysis of results and reporting.  
Duration: 02:00 | 7.5 Analysis of results and reporting.  
Duration: 02:00 |
| 15 | 7.5 Analysis of results and reporting.  
Duration: 02:00 | 7.5 Analysis of results and reporting.  
Duration: 02:00 |
| 16 |   | Assessment: AHA project. Results.  
Continuous assessment  
Presential  
Duration: 02:00 |
| 17 |   | Final written Exam  
Final examination  
Presential  
Duration: 03:00 |

Depending on the programme study plan, total values will be calculated according to the ECTS credit unit as 26/27 hours of student face-to-face contact and independent study time.

* The schedule is based on an a priori planning of the subject; it might be modified during the academic year, especially considering the COVID19 evolution.
7. Activities and assessment criteria

7.1. Assessment activities

7.1.1. Continuous assessment

<table>
<thead>
<tr>
<th>Week</th>
<th>Description</th>
<th>Modality</th>
<th>Type</th>
<th>Duration</th>
<th>Weight</th>
<th>Minimum grade</th>
<th>Evaluated skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Assignment of political perspective</td>
<td>Face-to-face</td>
<td>01:30</td>
<td>10%</td>
<td>/10</td>
<td>CG07</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Assessment. AHA Project: Planification of the observation of the context of use</td>
<td>No Presential</td>
<td>02:00</td>
<td>10%</td>
<td>/10</td>
<td>CG07, CB07, CE-HMDA07</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Assessment. AHA Project: Context of use</td>
<td>Face-to-face</td>
<td>02:00</td>
<td>20%</td>
<td>/10</td>
<td>CB07, CE-HMDA07, CG07</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Assessment. AHA Project: prototype</td>
<td>Face-to-face</td>
<td>02:00</td>
<td>30%</td>
<td>/10</td>
<td>CB07, CE-HMDA07, CG07</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Assessment: AHA project. Results.</td>
<td>Face-to-face</td>
<td>02:00</td>
<td>30%</td>
<td>/10</td>
<td>CB07, CE-HMDA07, CG07</td>
<td></td>
</tr>
</tbody>
</table>

7.1.2. Final examination

<table>
<thead>
<tr>
<th>Week</th>
<th>Description</th>
<th>Modality</th>
<th>Type</th>
<th>Duration</th>
<th>Weight</th>
<th>Minimum grade</th>
<th>Evaluated skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>Final written Exam</td>
<td>Face-to-face</td>
<td>03:00</td>
<td>100%</td>
<td>5 / 10</td>
<td>CB07, CE-HMDA07, CG07</td>
<td></td>
</tr>
</tbody>
</table>

7.1.3. Referred (re-sit) examination

<table>
<thead>
<tr>
<th>Description</th>
<th>Modality</th>
<th>Type</th>
<th>Duration</th>
<th>Weight</th>
<th>Minimum grade</th>
<th>Evaluated skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final written exam</td>
<td>Face-to-face</td>
<td>03:00</td>
<td>100%</td>
<td>5 / 10</td>
<td>CB07, CE-HMDA07, CG07</td>
<td></td>
</tr>
</tbody>
</table>
7.2. Assessment criteria

In the evaluation activities, the following criteria is taken into account: 1) Ability to understand needs of users, in particular older users; 2) Ability to conceptualize, design and evaluate interactive systems for the older population; and 3) Ability to communicate results and debate with peers.

In this first semester of the academic year 2020-21, and due to the COVID-19 situation, academic activities are scheduled to be online, unless the pandemic conditions improve substantially. That means that "face to face" evaluation activities will be performed online through videoconferences.

8. Teaching resources

8.1. Teaching resources for the subject

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Notes</th>
</tr>
</thead>
</table>
9. Other information

9.1. Other information about the subject

Note: please, always ask for an appointment before visiting a professor.

In this first semester of the academic year 2020-21, and due to the COVID-19 situation, academic activities are scheduled to be online, unless the pandemic conditions improve substantially. That means that "face to face" evaluation activities will be performed online through videoconferences.