

# The iProfessional PROJECT

LIFE LONG LEARNING PROGRAMME – ERASMUS  
[DURATION: October 2013 – September 2015]

## WP6.3 Modules' content for translation

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For further information related to the iPro Project please visit:  
The Project website ([www.ipro-project.eu](http://www.ipro-project.eu))

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## Table of contents

Project partners .....	3
Ireland .....	6
Croatia.....	10
Romania.....	15
Bulgaria.....	18
Italy.....	24
Belgium.....	27
Poland.....	30
Lithuania.....	32

## Project Partners

ACRONYM	PARTNER
IPS	Institute for Postgraduate Studies at UNWE
ITPIO	Institute for Training of Personnel in International Organisations
ATiT	Audio-visual Technologies Informatics and Telecommunications
TC	Telecentar
IADT	Institute of Art, Design & Technology
AW	ActiveWatch
ULO	University of Lodz
TUCEP	Tiber Umbria Comett Education Programme
VG TU	Vilnius Gediminas Technical University



## Modules developed for the purposes of the pilot

### WP6

IADT, Ireland:

- Mobile Marketing
- Project Communication Management

Telecentar, Croatia:

- Mobile Digital Audio Production
- Mobile Digital Photography
- Mobile Digital Video Production

Active Watch, Romania:

- Data Visualization
- Automated Data Collection

IPS, Bulgaria:

- Entrepreneurial role
- Web Technologies For Animation Design in 2D and 3D

TUCEP, Italy:

- Project Planning for Quality and Risk Management
- Project Team for Quality and Risk Management



ATiT, Belgium:

- Intellectual Property Rights: Introduction

ULO, Poland

- Digital Cultures and Development for Creative Practice

Vilnius Gediminas Technical University, Lithuania

- Computer Games



## IADT

### **Module: Introduction to the task**

Learning approach: Ex-cathedra

Resources necessary: Classroom

Duration: 3 hours

### **Aim of the module**

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Provide students with an introduction to the iProfessional project and describe the context and the content of the piloting. Explain the specific task ahead of the students and the Moodle platform that will be used in the process. Introduce Erasmus+ as a mobility tool available to students.

### **Annotation of the module**

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- Have an overview of the iProfessional project, its activities and planned outcomes
- Understand the task ahead: the collaborative video production project
- Understand the Moodle platform and its use: training, communication, planning, dissemination
- Understand Erasmus+ and the opportunities it offers to students

### **Expected learning results**

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Upon completion of this module, students will understand the rationale behind the iProfessional project, and the purpose of the task - collaborative video production. They will know how to use the Moodle platform for the training and the implementation of the task. They will know how to utilize Erasmus+ to their advantage.

### **Learning outcomes**

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On successful completion of this module, students will be able and motivated to start with the training needed to complete the task of collaborative video production ahead of them.

### **Explanation of the task**

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- The task is group work: 4 groups of 5 students will be formed
- Each group is responsible for producing a 5 minute film clip
- The task will be completed using mobile technology (smartphones / tablets), including:
  - Collaboration
  - Photography
  - Photo editing
  - Video recording
  - Video editing
  - Audio recording
  - Audio editing



- Publishing
  - Promotion
  - Project management
- The 5 minute film clip the students will produce has to present:
  - their university,
  - its programmes,
  - its location,
  - the city in which the university is situated, and
  - Erasmus+ as a mobility tool available to students
- The video will be published on YouTube
- The video will be promoted through a Facebook campaign

### **Learning content**

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- [iProfessional project website](#)
- [Moodle Manuals](#)
- [Erasmus+ Programme Guide](#)

### **Module: Mobile Marketing Fundamentals**

Course code: CORE/006

Course name: Marketing Competences

Module code: COMP/006 – 01/01

Module name: Mobile Marketing Fundamentals

Learning approach: Blended

Resources necessary: Mobile device (smartphone/tablet) with internet access

Duration: 3 hours

### **Aim of the module**

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The aim of this module is to introduce students to the principles of mobile marketing theory and practice.

### **Annotation of the module**

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- Understand the basic principles of marketing
- Understand the basic principles of mobile marketing
- Understand mobile web and mobile social media
- Develop digital skills on mobile devices: publish content on social media and the web
- Develop marketing skills: set up a simple Facebook marketing campaign

### **Expected learning results**

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Students will recognise the impact mobile marketing can have on their ability to communicate with the target audience. They will be able to communicate with their audience through social media and the web using mobile technology.



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**Learning outcomes**

On successful completion of this module, students will be able to create a simple mobile social media marketing campaign.

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**Practical experiences and workshops**

- Create a segmentation and positioning map of chosen Universities in Europe
- Conduct a SWOT analysis for your university
- Define a marketing mix for your university
- Create a value proposition for your university

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**Learning content**

Textbook(s) published in web form, directly related to the topic of the module:

[Mobile Marketing Playbook](#)

[Peacekeeper, Navigator, Student: The Marketer to 2015](#)

Online tutorial(s), directly related to the topic of the module:

[Mobile Marketing Fundamentals](#)

[5 Tips on Mobile Marketing for Small Businesses](#)

[Social Media Guide](#), by moz.com

[Fundamentals of Social Media](#) by GCF LearnFree.org

- Facebook
- Instagram
- Twitter
- YouTube
- Audio Editing
- Blog Basics
- Use Information Correctly

**Module: Project Communications Management**

Course code: CORE/007

Course name: Project Communications Management

Module code: COMP/007 – 01/01

Module name: Project Communications Management

Learning approach: Blended

Resources necessary: Mobile device (smartphone/tablet) with internet access

Duration: 3 hours

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**Aim of the module**

The aim of this module is to familiarize students with the basics of project management and communication in project management.





### Annotation of the module

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- Understand scope, time and resources
- Understand the life cycle of a project
- Understand SMART goals
- Understand work packages
- Understand time frames
- Understand the tools used in mobile project management
- Understand communication with the market and visibility

### Expected learning results

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Students will understand what information needs to flow in and out of the project, who needs what information, when is the information needed, what is the format of the information, and who will be responsible for transmitting and providing the information.

### Learning outcomes

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Upon the completion of this module the students will be able to write a simple project management plan and run the project using mobile technology.

### Practical experiences and workshops

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- Create a simple project management plan
- Set-up a project management environment using Moodle mobile app
- Run a project using Moodle mobile app

### Learning content

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Textbook(s) published in web form, directly related to the topic of the module:

Communication: The Message is Clear, by Project Management Institute  
Communications in Project Management, by Anita Mehta

Online tutorial(s), directly related to the topic of the module:

Communication planning in project management, by Bavo Institute

Online tutorial(s) for the tools applied in the teaching, directly related to the topic of the module:

Moodle Manuals



## TELECENAR

### Module: Mobile digital audio production

Course code: COMP/002

Course name: Audio and video clips and movies

Module code: COMP/002 - 01/01

Module name: Mobile digital audio production

Learning approach: Blended

Resources necessary: Mobile device (smartphone/tablet) with internet access

Duration: 3 hours

### Aim of the module

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The aim of this module is to familiarize students with the basics of sound recording and editing on mobile devices.

### Annotation of the module

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- Understand basic principles of sound and acoustics: Waves, frequency, loudness.
- Understand the basic workflow of sound design: Sound recording, editing and reproduction.
- Understand the basic sound recording setups.
- Develop digital skills on mobile devices: Importing audio, editing sound, narration, music, sound effects, exporting files, audio formats.

### Expected learning results

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Students will be able to use their mobile devices for digital sound recording and editing. They will be able to make simple adjustments of audio, add narration, sound effects and background music, and export audio files intended for publication on different media platforms.

### Learning outcomes

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On successful completion of this module, students will be able to create a simple digital audio content using their mobile devices.

### Practical experiences and workshops

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#### NCH Wavepad

- Sound editing: cut, copy, paste, delete, insert, silence, auto-trim
- Audio effects: amplify, normalize, equalizer, envelope, reverb, echo, reverse
- Export: file formats and platforms

## Learning content

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Textbook(s) published in web form, directly related to the topic of the module:

Fundamentals of sound production, by Telecentre Multimedia Academy

- Basics of Sound
- Sound Design
- Recording System
- Microphones
- Audio Editing
- Audio Distribution
- Radio

Online tutorial(s), directly related to the topic of the module:

Working with sound files, by Lesson Paths

- Digital audio
- Audio file format
- Audio file conversion using Switch
- Making a podcast
- Professional sound mixing

Online tutorial(s) for the tools applied in the teaching, directly related to the topic of the module:

Wavepad tutorials, by NCH Software

- Wavepad Basics
- Introduction to audio editing
- Introduction to audio effects

## Module: Mobile digital photography

Course code: COMP/001

Course name: Digital photography and animated graphics

Module code: COMP/001 - 01/01

Module name: Mobile digital photography

Learning approach: Blended

Resources necessary: Mobile device (smartphone/tablet) with internet access

Duration: 3 hours

## Aim of the module

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The aim of this module is to familiarize students with the basics of digital photography and image editing using mobile devices.

### Annotation of the module

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- Name the basic types of visual communications: graphic design, art, photography, multimedia.
- Describe the basic principles of the image composition: golden section and the rule of thirds.
- Understand principles of controlling exposure: lens aperture, shutter speed and ISO settings, depth of field.
- Understand basics of colour photography: white balance.
- Understand the basic light setups: natural light, studio lights, flash lights, accessories.
- Develop creative skills: portrait, architecture, landscape, sport, etc.
- Develop digital skills: image formats, crop and resize image, exposure and colour corrections, photo portfolio.

### Expected learning results

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Upon completion of this module, students will be able to name and describe the basic principles of the image composition, explain the concept of resolution, demonstrate the control of exposure, white balance, ISO sensitivity and depth of field, take pictures in the interior and exterior, perform basic photo corrections by using mobile app software for image processing and export files in formats adapted for publication on different media platforms.

### Learning outcomes

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On successful completion of this module, students will be able to create simple digital photography content using mobile devices.

### Practical experiences and workshops

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#### DSLR Camera Pro

- live histogram, exposure compensation, geotagging
- flash mode - auto, on, off, torch
- light metering mode - matrix, center-weighted, spot
- autofocus mode - single, continuous, face-detection
- white balance
- ISO
- drive mode: single, burst, timer
- scenes - portrait, landscape, panorama
- color effects
- grids: rule of thirds, golden ratio etc. Pixlr photo editor

### Learning content

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Textbook(s) published in web form, directly related to the topic of the module:

Fundamentals of photography production, by Telecentre Multimedia Academy

- Visual Communications
- Image Composition
- DSLR Camera
- Camera Exposure



- Color Control
- Light
- Photo projects
- Image editing

Online tutorial(s), directly related to the topic of the module:

- [Photography tutorial & tips](#) by Geoff Lawrence.com
- [The Basics of Photography, Complete guide](#), by Lifehacker.com
- [Digital photography school, tutorials for beginners](#), by Digital photography school.com
- [How to take camera phone pictures](#), by National Geographic

Online tutorial(s) for the tools applied in the teaching, directly related to the topic of the module:  
[Pixlr photo editor tutorial](#), by Autodesk

### **Module: Mobile digital video production**

Course code: COMP/002

Course name: Audio and video clips and movies

Module code: COMP/002 - 02/02

Module name: Mobile digital video production

Learning approach: Blended

Resources necessary: Mobile device (smartphone/tablet) with internet access

Duration: 3 hours

### **Aim of the module**

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The aim of this module is to familiarize students with the basics of video recording and editing on a mobile device.

### **Annotation of the module**

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- Understand the basic film terminology: frame, shot, scene, sequence, composition, formats, sizes, angles, camera movements
- Understand the basic filmmaking rules: 180 degree rule, varying shots by size and angle, rule of thirds - film dialogue
- Understand the video pre-production, production and post-production workflow: script, screenplay, storyboard, production plan, non-linear video editing, video distribution platforms
- Develop digital skills on mobile devices: importing media, adding, moving, deleting, trimming clips, rough and fine cut editing, exporting video
- Develop creative skills: reportage, video interview

### Expected learning results

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Upon completion of this module, students will be able to name the main video formats, enumerate the basic film shots, and describe the basic rules of framing and shooting video sequences. Using their mobile devices, they will be able to demonstrate manual adjustment of basic audio-visual parameters, record video and audio, import video, audio and graphic files into the software for nonlinear video editing, edit and synchronize video, add narration and background music, add text, and export files in formats adapted for publication on different media platforms.

### Learning outcomes

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On successful completion of this module, students will be able to create simple digital video content using their mobile devices.

### Practical experiences and workshops

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#### KineMaster Pro

- Video effects and transitions
- Audio effects and transitions
- Corrections and adjustments
- Storyboard
- Titles and text

### Learning content

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Textbook(s) published in web form, directly related to the topic of the module:

Fundamentals of video production, by Telecentre Multimedia Academy

- Film and video
- Film grammar
- Filmmaking rules
- Video production
- Video editing
- Video project

Online tutorial(s), directly related to the topic of the module:

Video tutorials, by Media College.com

Resources and Tutorials for Video Production, by Educational Technology Services Berkeley

Online tutorial(s) for the tools applied in the teaching, directly related to the topic of the module:

KineMaster tutorial, by KineMaster.com



## ACTIVE WATCH

### Module: Automated Data Collection

Course code: CORE/002

Course name: Computer generated digital media

Module code: CORE/002 – 02/01

Module name: Automated Data Collection

Learning approach: Asynchronous learning (but blended learning is preferred)

Resources necessary: Laptop and Internet connection

Duration: 14 hrs

### Aim of the module

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Aim of the module: Introduction in automated data collection through Web scraping

### Annotation of the module

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What are the principles, methods and tools used to automatically collect Web Data

### Expected learning results

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Automated extraction of data (text, numerical, geo-location, images,/other media files) from Web pages or documents, designing / defining/setting up a web scraper or crawler, data cleanup, data preparation and management

### Learning outcomes

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- Understand the digital world / web management
- Understand the ethics and politics of data and information
- Understand the basics of data management
- Can use/build scrapers / crawlers to automate large data extraction from the Web
- Can cleanup, manage and process multimedia data sets

### Practical experiences and workshops

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Usage of scraping / crawling tools and data clean-up / processing tools

### Learning content

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Core points of the module:

- The dynamic Web
- Web Scraping and Web crawling – Definitions, legal challenges
- Web scraping steps
- Defining HTML patterns
- Simulating navigation



- Configuring automation / automated action
- Web scraping tools and tutorials (Helium Scraper, Chrome Web Scraper)
- Data feed aggregation and mash-ups
- Other extraction tools (NodeXL, IO Import)
- Principles of data clean-up and management

**Module: Data Visualisation**

Course code: CORE/002

Course name: Computer generated digital media

Module code: CORE/002 – 03/01

Module name: Data Visualisation

Learning approach: Asynchronous learning (but blended learning is preferred)

Resources necessary: Laptop and Internet connection

Duration: 12 hrs

**Aim of the module**

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Aim of the module: Introduction in Data Visualisation

**Annotation of the module**

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How visualisation principles and technologies work

**Expected learning results**

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Ability to analyse data visualisations and find appropriate visual representations of data sets.

**Learning outcomes**

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- Understand the basics of research techniques
- Understand general principles of visual communication (e.g. visual perception principles)
- Understand how visualisation technologies work
- Analyse images and visual representations
- Be able to visualise a concept or idea
- Be able to analyse images
- Be able to create basic visualisations using a data set

**Practical experiences and workshops**

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Analysis of various types of data visualisation, application of visual design principles, use of data visualisation software tools.





## Learning content

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Core points of the module:

- Analytic journalism. Definitions and features
- Data journalism processes
- Images and visualizations
- Graphic presentation of statistical data
- Storytelling with visualizations. Examples
- Misuse of data visualizations. Examples



## IPS

### **Module: Entrepreneurial roles**

Course code: COMP/008

Course name: Business entrepreneurship

Module code: COMP/002 – 02/01

Module name: Entrepreneurial roles

Learning approach: Online eLearning

Resources necessary: Browser on Computer or Mobile device with Internet access

Duration: 2 hours Lectures, 4 hours Labs

### **Aim of the module**

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Introduction in Entrepreneurship's roles

### **Annotation of the module**

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Which are entrepreneurial roles and which the links with managers are

### **Expected learning results**

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The duties and functions of the Entrepreneurial roles

### **Learning outcomes**

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Knowledge - of the five entrepreneurial roles:

- The entrepreneur as creator and innovator
- The entrepreneur as business manager
- The entrepreneur as exceptional leader
- The entrepreneur as risk-taker
- The entrepreneur and uncertainty

Skills:

- Using a platform of online business analysis

### **Practical experiences and workshops**

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Links "entrepreneur-manager" (using a platform of online business analysis)

## Learning content

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### 1. The entrepreneur as a creator and innovator

Changes in the ownership of an organization rarely occur without a change in its management and resource configuration. The magnitude of change may vary, however—and this is the indicator of the actual existence of “entrepreneurship”. To determine the degree of innovation that is implemented, we can turn to Schumpeter’s list of “new combinations”. In other words, one should see whether:

- A new product or service is offered;
- A new method or technology is employed;
- A new market is targeted and embarked on;
- A new source of supply of raw materials and resources is used;
- A new form of industrial organization is created?

### 2. The entrepreneur as a business manager (control and making use of resources)

The resource-based theory is deemed to be the one that best explains the process of creation of new ventures as it puts the stress on the importance of utilization of the resources and capabilities entrepreneurs currently possess or can realistically acquire in the process of building rather than focusing on the analytical exercises performed by them. It argues that the application of the theory of industrial organization economics (through industry and competitor analysis) as well as the choice of the particular industry to enter and the type of business to run are not sufficient to ensure long-term success—rather, the nature and quality of the resources, capabilities, and strategies the entrepreneur possesses and can acquire are the key determinants to achieving it. Therefore, one can conclude that choosing the resources for a firm, configuring these resources into a consistent strategy, and deploying the resources (implementation) are the quintessential entrepreneurial acts.

### 3. The entrepreneur as an exceptional leader

Two of the paramount tasks an entrepreneur has to perform include choosing a team of assistants and exercising general control over all the activities taking place within the entity (including maintaining “order” and smooth running of the business). And it is up to entrepreneurs themselves to choose methods that will prove most effective for carrying out this organizational function, often by discarding the ones traditionally used. This is a process so demanding that actually few individuals possess the abilities needed to perform it—that is why an entrepreneur is often referred to as a “natural-born leader”.

### 4. The entrepreneur as risk-taker

Basically, the main characteristic of the environment entrepreneurship exists in is risk. Risk refers to the variability of outcomes (or returns); if returns are certain, there is no risk. A firm operating in a risk-free environment would continue to expand forever, as potential negative outcomes would be excluded. Hence, risk is a limit to ever-expanding enterprises. It can be measured quantitatively, though, by using statistical methods that measure dispersion, such as variance and standard deviation.

### 5. Entrepreneurs and uncertainty

Uncertainty is a principal feature of both the game of poker and markets. Let’s imagine it didn’t exist—then future could be predicted with a 100 per cent accuracy, so it would not be a source of lasting profit for anyone, as everybody could know it, at least for a fee. Therefore, uncertainty turns out to be a touchstone for entrepreneurs’ understanding of the environment and causes and effects of events taking place in it which is what ultimately determines the success of their ventures.

**Links to textbooks**

1. <http://campus.globalnxt.edu.my/FileRepository/Community/3079/148440/doc/Textbook.pdf>
2. <http://campus.globalnxt.edu.my/FileRepository/Community/3079/148440/doc/Textbook.pdf>
3. <http://campus.globalnxt.edu.my/FileRepository/Community/3079/148440/doc/Textbook.pdf>
4. <http://campus.globalnxt.edu.my/FileRepository/Community/3079/148440/doc/Textbook.pdf>
5. <http://campus.globalnxt.edu.my/FileRepository/Community/3079/148440/doc/Textbook.pdf>

**Links to Online tutorials, related to the topic of the module**

6. <https://www.wiziq.com/tutorial/383-Corporate-Entrepreneurship>
7. <https://www.wiziq.com/tutorial/105379-Entrepreneurship>
8. <https://www.wiziq.com/tutorial/25578-Entrepreneurship>
9. <https://www.wiziq.com/tutorial/383-Corporate-Entrepreneurship>
10. <https://www.wiziq.com/tutorial/383-Corporate-Entrepreneurship>

**Links to applied tools, related to the topic of the module**

11. <https://developer.gooddata.com/getting-started/tutorial/getting-started-prerequisites>
12. <https://www.wiziq.com/tutorial/25578-Entrepreneurship>

**Module: Web technologies for animation designed in 2D and 3D**

Course code: COMP/004

Course name: WEB GRAPHIC DESIGN WITH 2D AND 3D ANIMATIONS

Module code: COMP/001 – 02/01

Module name: Web technologies for animation designed in 2D and 3D

Learning approach: Online

Resources necessary: Browser on Computer or Mobile device with access to Internet

Duration: 8 hours Lectures and 8 hours Labs

**Aim of the module**

Using various artistic techniques, to make education how to design 2D and 3D animations through web access

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### Annotation of the module

To teach how to illustrate books and tabloids (especially electronic ones), how to design graphics in 2D and 3D with a browser access and how to incorporate motion in those graphics.

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### Expected learning results

Fundamentals of design / Web design and drawing, concept of illustration, page layout design, interactive presentation, 2D and 3D animation, the art of digital storyboard, editing animations

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### Learning outcomes

Learners should understand:

- The importance of research and critical analysis to help improve their understanding of animation creation and editing software;
- The processes necessary create animated assets in 2D and 3D techniques using specific skills;
- These skills should include character and background design, modelling, texturing, rigging and key animation tests;
- Learners will also have developed skills in editing, exporting, DVD authoring, Photoshop and other key animation creation programs.

A range of activities should include:

- Artwork creation in a program such as Blender;
- Simple animation techniques using programs like Flash and Java;
- Basic modelling and texturing using programs such as 3Ds Max, Maya or similar;
- Editing techniques – file importing/exporting and DVD authoring.

Upon successful completion of this module, the students will be able to:

- Competently use and integrate a range of higher level skills relevant to 2D and 3D animation in response to set tasks;
- Independently explore the potential of technologies and equipment appropriate to 2D and 3D animation;
- Independently and collaboratively experiment with the application of concepts and processes in response to a professional brief in relation to 2D and 3D animation.

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### Practical experiences and workshops

Introduction to 2D/3D Animation; The latest trends 2D/3D world; Animation movies and tools to make 2D/3D animations

## Learning content

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1. 2D Animation - 2D animation is a hands-on exploration of the principles, practices, and issues involved in the creation of computer-aided animated sequences [6, 16]. The module emphasizes on the principles of motion and its change over time. The students should focus on different topics, such as animation planning, interface concerns, animation principles, transitions, etc. Students are supposed to use a range of approaches - from hand-drawn motion graphics to stop-motion animation. The general outcome of the 2D animation skills must include:
  - Creating digital artwork and materials suitable for 2D animating;
  - Creating animated sequences using 2D animation production methods and digital software;
  - Describing and assessing the programs and practices involved in the creation of 2D animated sequences.
2. 3D Animation - 3D Animation focuses on animating characters and objects within digital 3D environments. The course will also focus on visual storytelling, the dynamics of motion, and the development compelling performances. In the course, students will plan and storyboard scenes, layout camera and scene objects, setup-models for animation, explore character performance and motion, learn animation workflow strategies, render, and composite their final sequences. The general outcome of the 3D animation skills must include:
  - Creating digital artwork and materials suitable for 3D animating;
  - Creating animated sequences using 3D animation production methods and digital software;
  - Describing and assessing the programs and practices involved in the creation of 3D animated sequences.
3. Virtual Worlds and 3D Modelling - introduces the principles and concepts of three dimensional modelling by application of appropriate modelling software. It develops skills in the production of computer-based three dimensional models, animation and virtual objects and graphics. Students will produce animated 3D models, incorporating lighting effects, textures and other advanced modelling features.
4. 2D and 3D Programming with Java - developing skills in object oriented modelling and user interface design. Practical skills needed to design and develop 2D and 3D Java programs are developed. The lecture will provide the students with knowledge and skills in:
  - Basic Principles of 2D Graphics with Java - Drawing Lines and Curves, Special Effects and Virtual Reality, Areas, Text and Colors;
  - Basic Principles of 3D Graphics with Java - Modelling Three-Dimensional Objects, Illumination and Shading, Special Effects and Virtual Reality.
5. HTML5 and JavaScript - HTML5 canvas is about drawing graphics through HTML canvas, which is a set of JavaScript methods (APIs) for drawing graphics (lines, boxes, circles, shapes). By using HTML Canvas students will learn to:
  - Draw colourful text, with or without animation;
  - Implement graphical data presentation with an imagery of graphs and charts;
  - Animate objects - from simple bouncing balls to complex animations;
  - Produce interaction;



- Manage canvas to respond to JavaScript events - listen for and respond to any user action (key clicks, mouse clicks, button clicks, finger movement).
- Learn canvas methods for animations, offer lots of possibilities for HTML gaming applications.
- 6. Mobile Application Design – will provide the principles for developing applications for the Android mobile platform. The lectures will guide the students in developing an Android applications using Java and the Android Studio development platform.

#### **Links to textbooks**

- a) Andy Beane, 3D Animation Essentials, Wiley, 2012
- b) Daniel Selman, Java 3D Programming, Manning, 2012,
- c) Frank Klawonn, Introduction to Computer Graphics Using Java 2D and 3D, Second Edition, Springer, 2012
- d) Frederic Dufaux, Beatrice Pesquet-Popescu, Marco Cagnazzo, Emerging Technologies for 3D Video, Wiley, 2013
- e) Lance Flavell, Beginning Blender - Open Source 3D Modeling, Animation, and Game Design, Apress, 2012
- f) Lindsey Fallow, Dawn Griff, Head First 2D Geometry, O'Reilly Media, 2009
- g) Robert Chin, Beginning Android 3D Game Development, Apress, 2014
- h) Steve Fulton, Jeff Fulton, HTML5 Canvas - Native Interactivity and Animation for the Web, 2nd Edition, O'Reilly Media, 2013
- i) Tony Parisi, Programming 3D Applications with HTML5 and WebGL, O'Reilly Media, 2014
- j) Tony Parisi, WebGL: Up and Running, O'Reilly Media, 2012

#### **Links to online tutorials, related to the topic of the module**

- a) <http://www.w3schools.com/> (On-line tutorials for HTML5, JavaScript and other related Web technologies).
- b) <http://docs.oracle.com/javase/tutorial/2d/> (Introduction to the Java 2D API and it shows how to display and print 2D graphics in Java programs).
- c) <http://www.java3d.org/> (Contains many useful links and tutorials to Java 3D API and how to use it).
- d) [www.udemy.com](http://www.udemy.com) (A great resource for learning to develop Android applications).
- e) [www.lynda.com](http://www.lynda.com) (A great resource for learning to develop different 2D/3D-related content).

#### **Links to applied tools, related to the topic of the module**

- a) <http://www.adobe.com/products/flash.html> (Easy way to create animations. Plus, customize brushes for the perfect shape, angle, and flatness — then sync them for use on multiple computers).
- b) <http://usa.autodesk.com/maya> (3D modelling - Maya is very popular for developing models for games, animations and movies).
- c) <http://www.autodesk.com/products/3ds-max/> (3D modeling software for a comprehensive modeling, animation, simulation, and rendering solution for games, film, and motion graphics artists.)
- d) <http://www.blender.org> (Blender is a free Open Source Product for 3D-modelling).
- e) <http://developer.android.com/tools/studio/index.html> (The official IDE for Android application development).
- f) <http://www.khronos.org> (The Industry's Foundation for High Performance Graphics – From Games to Virtual Reality, Mobile Phones to Super Computers).



## TUCEP

### **Module: “Project Planning for Quality and Risk Management”**

Course code: COMP/006

Course name: Project Quality and Risk Management

Module code: COMP/006\_01/01

Module name: Project Planning for Quality and Risk Management

Learning approach: blended

Resources necessary: Mobile device (smartphone/tablet) with internet access; personal computer

Duration: 12 hours

### **Aim of the module**

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Structured a work plan that allows the achievement of the objectives and results of the project, balancing the needs of optimizing the use of production factors with the customer's needs.

### **Annotation of the module**

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Starting from the given conditions and constraints of resources, know how to elaborate a work plan that organizes the various stages of project implementation.

### **Expected learning results**

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Students will identify the tasks and role of the Project Manager; the production systems (the main conceptual differences between working and committed to achieve a finished product); definition of the structure of the project, identification of resources, accountability; identification of phases, scheduling of activities. They will be able to create the budget, the techniques to implement a control system, calculating cash flow of order.

### **Learning outcomes**

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At the end of this module, students will be able to develop a work plan formalized and to identify the resources needed to implement a project.

### **Practical experiences and workshops**

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Develop a work plan formalized, that explicit the different stages of implementation of the project (definition of constraints, objectives and results of the project. Identify the analytical structure of the project Work Breakdown Structure; milestones and work packages). Determine the resources needed to implement a project.





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## Learning content

Introduction to the Project Management

Part one: Approches to the project / programme management

Part two: What is planning?

Part three: The planning phase in the project

Part four: Towards implementation

Part five: An example for Quality and Risk Management approach

### **Module: “Project Team for Quality and Risk Management”**

Course code: COMP/006

Course name: Project Quality and Risk Management

Module code: COMP/006\_01/02

Module name: Project Team for Quality and Risk Management

Learning approach: blended

Resources necessary: Mobile device (smartphone/tablet) with internet access; personale computer

Duration: 12 hours

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### **Aim of the module**

Establish and lead the project team to achieve the goals.

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### **Annotation of the module**

Knowing how to manage professional resources involved in a project using tools and methods of working in teams.

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### **Expected learning results**

Students will identify the elements of work organization and human resource management; management focus groups and working methodologies of group; communication techniques and negotiation; Methodologies and tools to facilitate relations; Psychology and ethics of negotiation; Management decision-making team; Problem solving techniques.

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### **Learning outcomes**

At the end of this module, students will be able to manage professional resources involved in the project and they will know how to communicate and work in teams in a project team.



### **Practical experiences and workshops**

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Manage resources professionals involved in the project: identification of professional resources; assign tasks appropriate; motivate team members; performance evaluation of individual and group. Communicate and work in teams in a project team: to facilitate the relationship between members; reveal any divergent positions; mediate conflicting positions, intervene to prevent the negative impact.

### **Learning content**

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- Meaning of competence; skills assessment (orientation, empowerment and educational value)
- Human resources management project (start phase of the project and basic concepts of the project team)
- Processes of human resource management project (Plan the Human Resource Management Plan, Acquire Project Team, Develop Project Team, Manage Project Team)
- Phases of training and development of a group – Working group (Forming, storming, performing and adjourning; advantages of the team and teamwork)
- Management strategies of the project team – interpersonal/soft skills (Leadership, team building, Motivation, Communication, Decision Making, Political and Cultural Awareness, Negotiation)
- Conflict (confronting, compromising, smoothing, forcing and withdrawing)
- Change management
- Lead the team (Facilitator and Excellent Team)
- Problem solving
- Coaching and training
- Role of project manager (Rules and values)
- Example (Course design: Mary S.Woodley, CSU Northridge – “Digital Project Planning & Management Basics”)



ATiT

### **Module: Intellectual Property Rights: Introduction**

Course code: Core/004

Course name: Legal issues, regulation and IPR

Module code: Mod/003

Module name: Intellectual Property Rights: Introduction

Learning approach: Online with additional off line activities (xMOOC)

Resources necessary: PC/Internet access

Duration: 6 hours (+ 6 hours self-study)

### **Aim of the module**

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This course is aimed at designers, creators, writers who are starting to work or working already across all new and traditional media: radio, TV, press, web, multimedia, apps, film, theatre, print, games etc. not only in the artistic realm but in all segments of the media and communications industry as self employed or as employee: information, news and press, advertisement and public relations, games, industry, entertainment, commerce and education. The course is intended to be a general but comprehensive introduction in the regulatory issues related to Intellectual Property Rights (IPR). The course content includes:

- Introduction to the course
- Definition of IPR and different types of IPR
- History of IPR
- Why IPR? What are the objectives and achievements?
- Why not IPR? What are the “damages” done by IPR?
- Overview of the different IPR
- Comparison of different IPR concepts according to international, national or regional legal, industrial and cultural frameworks, policies and concepts.
- Advantages and disadvantages. Alternatives? Future developments?

All parts are illustrated as far as possible with real life examples and concrete cases.

### **Annotation of the module**

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- Understand and explain the legal and regulatory framework for businesses in general, and for digital media and arts companies and professionals in particular;
- Understand the international aspects of IPR legislation and regulation (global, EU, other international bodies);
- Understand intellectual property in general and be able to apply the basics to a case study;
- Understand the basic legal issues related to all aspects of media production itself: individual, journalistic, fictional, advertisement, etc.;



- Understand the opportunities and potential risks of the Internet and communication via electronic media (e-mail, network tools) for work, leisure, information sharing and collaborative networking, learning and research. Understand the implications on a personal level in particular with regard to IPR.
- Be aware of issues around the validity and reliability of information available and of the legal and ethical principles involved in the (interactive) use of digital media and arts.
- Understand patent applications and know how and where to apply on the appropriate level.

### **Expected learning results**

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After this course the learner will be able to search, find, select and apply a suitable IPR scheme for a self created product or production; to create an IPR scheme for his/her productions of all nature and to make a distinction between legal practices and copyright breeches.

### **Learning outcomes**

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On successful completion of this module, students will be able to create a valid and sustainable IPR strategy for themselves or for their organisation at all levels and for all forms of media and publications.

### **Practical experiences and workshops**

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This course is intended to be a general but comprehensive introduction in the regulatory issues related to Intellectual Property Rights (IPR), it consists of a theoretical part but also some practical parts in which the learners are encouraged to discuss amongst each other different aspects of IPR, they are also tasked to critique current schemes and develop ideas for future designs of IPR schemes and policies that are relevant in their area of interest, expertise or work. Practical work will also consist in the application of different schemes of IPR to own creations. Assignments consist of:

- Explore and document national IPR regulatory framework (desk research)
- Interview creative author and document issues
- Publish document on shared blog in Community of Practise
- Discuss issues and compare with peers
- Participate in multilevel IPR quiz

### **Learning content**

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Ppt presentations, case study documents, video, essays, quizzes, MCQs  
MOOC, Webinars, blogs, chat, forum (most integrated in to the MOOC)

- Introduction to IPR and Copyright
  - History and philosophy behind of IPR and Copyrights
  - Types of IPR
- Legal issues
- Alternatives to IPR
- Applications for users and for authors
- The future of copyrights
- Copyrights quiz (assessment)



Every chapter consists of a short introductory video that sets the scene and explains the boundaries of the topic, each lesson part contains learner activities such as discussion or research work, each chapter concludes with a short self assessment, the whole course concludes with a comprehensive IPR quiz.

Recommended reading and other support materials

- Aliprandi A., Creative Commons: A User Guide, Ledizione Italia, 2011
- Bently L. and Sherman B., Intellectual Property Law, Oxford, 2014
- De Cock C., The Copyright Manifesto, Brussels, 2015
- IRSWG, Recommendations for the Technical Infrastructure for standardized International Rights Statements, May 2015
- Johns A., Piracy: The Intellectual Property Wars from Gutenberg to Gates, Chicago, 2009
- Lessig L., Free Culture, Penguin New York, 2004
- [www.wipo.int](http://www.wipo.int)

**ULO**

Course code: Core/003

Course name: Digital Cultures and Development for Creative Practice

Module code: CORE/003 – 02/02

Module name: The Specificity of Digital Culture and Communication - Creativity 2.0.

Learning approach: Online with additional off line activities (Moodle)

Resources necessary: PC/Internet access

Duration: 5 hours (+ 5 hours self-study)

**Aim of the module**

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Identify the determinants of digital culture and the characteristics of internet communication to provide better understanding of the contemporary cultural context for creative development of individuals; Students should familiarize oneself with all the materials presented on the Moodle platform. In addition, two traditional classes based on the e-platform's guidelines will be conducted as a form of blended learning and flipped classroom.

Gaps covered: social responsibility, knowledge building, intercultural awareness and communication, platform and media technology, artistry, ICT, social media, creativity and innovation.

**Annotation of the module**

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Show the development of such a discourse and cultural specificity of prosumption as social phenomenon; discuss Web creativity – relations between creating and re-creating, re-using, sampling as a manifestation of the search for originality; describe spaces of creativity and their potential direction of development In network societies.

**Expected learning results**

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Acquire knowledge on Digital Culture and Communication in the context of being creative and innovative

**Learning outcomes**

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In Digital Culture the students will receive fundamentals of code in an accessible manner alongside visual thinking and creative problem--solving. Skills and confidence are developed through supported exercises, which form the building blocks of knowledge and techniques, which students can quickly apply to the creative problems set in project briefs.



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**Practical experiences and workshops**

Better skills in internet communication and understanding of new media and digital culture, self promotion, creative actions in social media, potential for self-development, finding creative solutions, nonroutine resolving problems related to digital culture.

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**Learning content****Textbooks:**

Bollier D., Racine L. (2005), *Ready to Share: Creativity in Fashion & Digital Culture*.  
Cinque T. & A. Brown (2015), *Educating Generation Next: Screen Media Use, Digital Competencies and Tertiary Education*.  
Dalile L. (2012), *How Schools Are Killing Creativity*.  
Deuze M. (2005), *Participation, Remediation, Bricolage: Considering Principal Components of a Digital Culture*.  
Miller V. (2011), *Understanding Digital Culture – Introduction*.  
*Structures of Participation in Digital Culture*, ed. J. Karaganie (2007).  
*What is Creativity?*

**Internet tutorials:**

Eger J. M. (2013), *Culture May Be the Key to Creativity*.  
*Global Digital Culture: Cultural Differences and the Internet* (21.02.2012).  
Gournelos. T. (2014), *Digital Culture, Language, Revolution*.  
Kawasaki Guy, *The Art of Innovation*.  
Otani R., A Review of M. Deuze, *Digital Culture* (2009).  
Robinson K. (2006), *How Schools Kill Creativity*.



**VG TU**

**Module:**

Course code: OPTN/004

Course name: Digital Multimedia Technology

Module code: OPTN/004

Module name: Computer games

Learning approach: Blended

Resources necessary: Computer

Duration:

**Aim of the module**

The aim of this module is to develop computer-controlled game where players interact with objects displayed on a screen for the sake of entertainment or education:

Model-Based Design of Computer-Controlled Game Character Behavior; Computer-controlled game system; Computer-controlled game system; Computer and video games

**Annotation of the module**

A computer game is a computer-controlled game where players interact with objects displayed on a screen for the sake of entertainment or education. Computer game also includes games which display only text or which use other methods, such as sound or vibration, as their primary feedback device, or a controller (console games), or a combination of any of the above.

Short guidelines for module:

The core of the module material:

- References
- Instructions
- Computer learning systems

Platform for tutoring:

Moodle

Transferable Cooperation Skills:

- Participation in group discussions and presentations via the internet
- Team work
- Computer Learning Systems
- Exercise of initiative and personal responsibility

Evaluation:

Gain skills will be evaluated in 10 point scale by test.





### **Expected learning results**

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Design concepts of different types of computer games, Apply computer games in different environments, Design networked, multiplayer games graphics, animation, physics, and simulation programming:

A Literature Review of Gaming in Education;

The use of computer and video games for learning;

Introducing Educational Games in the Learning;

Serious games: online games for learning;

Learning with simulation games;

Moving learning games forward.

### **Learning outcomes**

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On successful completion of this module, students will be able to create a simple computer-controlled games, smart videos.

### **Practical experiences and workshops**

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Balance learning outcomes and a fun gaming experience. Adopt a user---driven approach to create game content, game play and to define valid outcomes. Integrate assessment mechanisms in the game and for the overall project:

Best Practices Around Implementing Educational Games;

Best Practices for Games on Facebook;

Mobile Games Best Practices;

Interactive smart game plan;

Best practices and examples for successful gamification.

### **Learning content**

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Adventure Game studio

GameSalad

Sploder

Thinking Worlds

Marmalade SDK

Marmalade Quick

Unreal Development Kit

Maya LT

Scaleform Mobile SDK

Unity Pro

Project Anarchy

App Game Kit

Corona SDK

Ludei

Nextpeer

PlayHaven

PowerVR Graphics SDK



Enlighten  
Web Marmalade  
Moodle courses  
Physics involved in Game Development  
Introduction to tools  
JavaScript for different tools  
Controlling Characters  
Developing a game using the tools  
Live demonstration and examples