# Detailed Project Class Plan: Introduction to programming and robotics with Microbit

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Session** | **Duration (min)** | | **Content and Methods** | **Teaching Materials**  Common for all sessions:   * Handbook * Website   mathisgerdes.github.io/microbit-macau/ |
| **Total** | **Sub**  **parts** |
| 1 | 105 | 15 | **Content**: Introduction to the project  **Methods**: Presentation | **Teaching materials**:   * Two sets of slides:   + Introduction to project   + Introduction to Python |
| 30 | **Content**: Introduction to programming with Python  **Methods**: Presentation, real time demo. |
| 60 | **Content**: Hand on experience with “micro:bits”  **Methods**: Peer-teaching, teamwork |
| 2 | 180 | 30 | **Content**: Hand on experience with “micro:bits”  **Methods**: Peer-teaching, teamwork | **Teaching materials**:   * Slides: Introduction to Robotics |
| 30 | **Content**: Introduction to Robotics and “bit:bot”  **Methods**: Presentation, real time demo |
| 120 | **Content**: Hands on experience with “bit:bot”  **Methods**: Peer-teaching, teamwork |
| 3 | 60 | 15 | **Content**: Introduction to “bit:bot” programming challenge  **Methods**: Presentation, question/answer session. | **Teaching materials**:   * Slides: “Bit:bot” challenge |
| 45 | **Content**: Idea brainstorming session  **Methods**: Creation of mind maps, idea proposals and discussion with tutors. |
| 4 | 180 | 60 | **Content**: Work session for “bit:bot” challenge  **Methods**: Peer-teaching, teamwork |  |
| 30 | **Content**: Overview of work done by each team  **Methods**: Small oral presentations, tips from tutors |
| 60 | **Content**: Work session for “bit:bot” challenge  **Methods**: Peer-teaching, teamwork |
| 30 | **Content**: Overview what was done during the session  **Methods**: Discussion, tips from tutors |
| 5 | 180 | 120 | **Content**: Work session for “bit:bot” challenge  **Methods**: Peer-teaching, teamwork | **Teaching materials**:   * Slides: Internal showcase presentation |
| 30 | **Content**: Final overview  **Methods**: Discussion |
| 30 | **Content**: Tips for final presentation  **Methods**: Presentation |
| 6 | 60 | 30 | **Content**: Internal showcase  **Methods**: Oral presentations, question/answer session |  |
| 30 | **Content**: Reflection  **Methods**: Discussion |