

GameMaker Programming I & II

Scope and Sequence

| Module | Approx. Time* | Discussions | Individual Activities | Workshop Projects |
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| 1 Ball Bouncer Project: Part I | 10 hours | <ul style="list-style-type: none"> Lesson 5 Discussion | <ul style="list-style-type: none"> Lesson 4 Activity Lesson 4 Completed Project Lesson 5 Completed Module 1 Quiz | <ul style="list-style-type: none"> Workshop 1 Completed |
| 2 Ball Bouncer Project: Part II | 10 hours | <ul style="list-style-type: none"> Lesson 6 Discussion | <ul style="list-style-type: none"> Lesson 7 Completed Lesson 9 Completed Module 2 Quiz | <ul style="list-style-type: none"> Workshop 2 Completed |
| 3 Debugging the Ball Bouncer Project | 8 hours | <ul style="list-style-type: none"> Computer Science Background and Debugging How to Prevent Paddle from Rotating into Wall Ways to Determine if it is Time to Destroy Objects | <ul style="list-style-type: none"> Compile Errors Runtime Errors Lesson 14 Completed Module 3 Quiz | <ul style="list-style-type: none"> Workshop 3 – Ball Bouncer Game |
| 4 Basic Card Games - Matching | 8 hours | | <ul style="list-style-type: none"> Lesson 15 Completed Module 4 Quiz | <ul style="list-style-type: none"> Finished Matching Game |
| 5 Deck Card Games – Arrays and Loops | 15 hours | <ul style="list-style-type: none"> Deal a Deck Card Spacing Discussion | <ul style="list-style-type: none"> Lesson 18 for Loop Practice Lesson 20 Completed Module 5 Quiz | <ul style="list-style-type: none"> Deal a Deck Game Completed |
| 6 Project 31 | 20 hours | | <ul style="list-style-type: none"> Lesson 23 Completed Array Runtime Error Module 6 Quiz | <ul style="list-style-type: none"> Workshop 4 Completed Workshop 5 Completed Workshop 6 Completed |
| 7 Finish Project 31 | 5 hours | <ul style="list-style-type: none"> Playtest Discussion | <ul style="list-style-type: none"> Playtest Evaluation 31 Game Evaluation | <ul style="list-style-type: none"> 31 Game |

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| 8 | Start the Sky is Falling Project | 10 hours | | <ul style="list-style-type: none"> Lesson 25 Completed Move Together Module 8 Quiz Lesson 26 Completed | <ul style="list-style-type: none"> Workshop 9 Completed |
| 9 | Continue the Sky is Falling Project | 10 hours | <ul style="list-style-type: none"> Captured Animal Discussion | <ul style="list-style-type: none"> Lesson 27 Completed Lesson 28 Completed Module 9 Quiz | <ul style="list-style-type: none"> Workshop 10 Completed |
| 10 | Finish the Sky is Falling Project | 10 hours | <ul style="list-style-type: none"> Peggle Discussion | <ul style="list-style-type: none"> Lesson 29 Completed Lesson 30 Sound Module 10 Quiz The Sky is Falling Game Evaluation | <ul style="list-style-type: none"> The Sky is Falling Game |
| 11 | Start the Side Scroller Project | 10 hours | <ul style="list-style-type: none"> Layering Effects | <ul style="list-style-type: none"> Lesson 31 Completed Lesson 32 Exploding Player Ship Assignment Module 11 Quiz | <ul style="list-style-type: none"> Workshop 12 Completed |
| 12 | Side Scroller and Players | 10 hours | | <ul style="list-style-type: none"> Lesson 33 Completed Lesson 34 Add Player Weapons – Completed Module 12 Quiz | <ul style="list-style-type: none"> Workshop 13 Completed |
| 13 | Side Scroller and the Enemy | 10 hours | | <ul style="list-style-type: none"> Build Points Lesson 36 – The Enemy Ship Completed Module 13 Quiz | <ul style="list-style-type: none"> Workshop 14 Completed |
| 14 | Continue the Side Scroller Project | 15 hours | | <ul style="list-style-type: none"> Lesson 37 Completed Creating Enemy Waves Completed Lesson 39 – Maxi Blaster Weapon Completed Module 14 Quiz | <ul style="list-style-type: none"> Workshop 15 Completed |
| 15 | Finish the Side Scroller Project | 10 hours | | <ul style="list-style-type: none"> Lesson 40 – Adding Instructions Completed Side Scroller Game Evaluation Side Scroller Game | <ul style="list-style-type: none"> Workshop 16 Completed |
| 16 | Maze Project | 10 hours | | <ul style="list-style-type: none"> Lesson 42 Completed | <ul style="list-style-type: none"> Workshop 18 Completed |
| 17 | Maze Project and Views | 10 hours | | <ul style="list-style-type: none"> Ways to Check If Collision-Free Ahead Lesson 43 Completed Lesson 44 Completed Lesson 45 Completed | <ul style="list-style-type: none"> Workshop 19 Completed |

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| 18 Continue Maze Project | 8 hours | | | <ul style="list-style-type: none"> ● Workshop 20 Completed ● Workshop 21 Completed |
| 19 Maze Project and Traps | 8 hours | | <ul style="list-style-type: none"> ● Lesson 46 Completed ● Lesson 47 Completed | <ul style="list-style-type: none"> ● Workshop 22 Completed |
| 20 Maze Project and Enemies | 8 hours | | <ul style="list-style-type: none"> ● Lesson 48 Completed ● Lesson 49 Completed ● Lesson 50 Completed | |
| 21 Finish Maze Game | 8 hours | | <ul style="list-style-type: none"> ● Efficient Code ● Lesson 51 Completed | <ul style="list-style-type: none"> ● Workshop 23 Completed ● Maze Game Completed |
| Final Exams | | | <ul style="list-style-type: none"> ● GameMaker Programming I - Essay Exam ● GameMaker Programming I - Multiple Choice Exam ● GameMaker Programming II - Essay Exam ● GameMaker Programming II - Multiple Choice Exam | |