**PLUTUS PIONEER PROGRAM**

[**Lecture #1**](https://www.youtube.com/playlist?list=PLNEK_Ejlx3x2nLM4fAck2JS6KhFQlXq2N)

* [Part 1 - Welcome and Introduction](https://youtu.be/X80uNXenWF4)
* [Part 2 - The EUTxO-Model](https://youtu.be/bfofA4MM0QE)
* [Part 3 - Building the Example Code](https://youtu.be/zPaDp4R9X7o)
* [Part 4 - Auction Contract in the EUTxO-Model](https://youtu.be/Bj6bqRGT1L0)
* [Part 5 - Auction Contract on the Playground](https://youtu.be/K61Si6iQ-Js)
* [Part 6 - Homework](https://youtu.be/tfanOE2ARho)

[**Lecture #2**](https://www.youtube.com/playlist?list=PLNEK_Ejlx3x0mhPmOjPSHZPtTFpfJo3Nd)

* [Part 1 - Triggering Change](https://youtu.be/BEr7lcCPjnA)
* [Part 2 - Low Level, Untyped Validation Scripts](https://youtu.be/xgnmMl-eIIM)
* [Part 3 - High Level, Typed Validation Scripts](https://youtu.be/HoB_PqeZPNc)
* [Part 4 - Summary](https://youtu.be/V5P2gKHos48)
* [Part 5 - Homework](https://youtu.be/_r-EpXzQGKo)

[**Lecture #3**](https://www.youtube.com/playlist?list=PLNEK_Ejlx3x2zxcfoVGARFExzOHwXFCCL)

* [Part 1 - Configuring Playground Time Out](https://youtu.be/sLMhsqiWeGU)
* [Part 2 - Script Contexts](https://youtu.be/B66xLrGXwmw)
* [Part 3 - Handling Time](https://youtu.be/mf06ll-4j2w)
* [Part 4 - A Vesting Example](https://youtu.be/ae7U_yKIQ0Y)
* [Part 5 - Parameterized Contracts](https://youtu.be/XqFILXV_ACM)
* [Part 6 - Deploying to the Cardano Testnet](https://youtu.be/ABtffZPoUqU)
* [Part 7 - Homework](https://youtu.be/GGUT2O_0urQ)
* [Part 8 - Summary](https://youtu.be/uyaPtayBRb8)

[**Lecture #4**](https://www.youtube.com/playlist?list=PLNEK_Ejlx3x230-g-U02issX5BiWAgmSi)

* [Part 1 - Introduction](https://youtu.be/gxMW9uXTEj4)
* [Part 2 - Monads](https://youtu.be/f2w-MB3X4a0)
* [Part 3 - The EmulatorTrace Monad](https://youtu.be/qoUfgaHs1CI)
* [Part 4 - The Contract Monad](https://youtu.be/yKX5Ce8Y0VQ)
* [Part 5 - Homework & Summary](https://youtu.be/sxRLzR0jdiY)

[**Lecture #5**](https://www.youtube.com/playlist?list=PLNEK_Ejlx3x0G8V8CDBnRDZ86POVsrfzw)

* [Part 1 - Start](https://youtu.be/mGPqi9m0EPw)
* [Part 2 - Values](https://youtu.be/4iNTgjovMRg)
* [Part 3 - A Simple Minting Policy](https://youtu.be/DBUdFsZpW7A)
* [Part 4 - A More Realistic Minting Policy](https://youtu.be/4SROikF8JwE)
* [Part 5 - NFT's](https://youtu.be/2lKN0ZL_EQU)
* [Part 6 - Homework](https://youtu.be/j7yT2OqGY6U)

[**Lecture #6**](https://www.youtube.com/playlist?list=PLNEK_Ejlx3x2sBWXHdFBRgkzPF6N-1LVi)

* [Part 1 - Introduction](https://youtu.be/TfWKxdli4eI)
* [Part 2 - The Minting Policy](https://youtu.be/w7_27sQIqkY)
* [Part 3 - Minting with the CLI](https://youtu.be/kfvzrC9J02k)
* [Part 4 - Deployment Scenarios](https://youtu.be/tW7uoY16gC0)
* [Part 5 - The Contracts](https://youtu.be/JgNhY_uuuGA)
* [Part 6 - Minting with the PAB](https://youtu.be/X6AyZIZ0vaE)
* [Part 7 - Summary](https://youtu.be/KmNOFltlRiA)

[**Lecture #7**](https://www.youtube.com/playlist?list=PLNEK_Ejlx3x3Y5xvAsVqq46S9xkHopSGU)

* [Part 1 - Introduction](https://youtu.be/CLOHdIGgy90)
* [Part 2 - Commit Schemes](https://youtu.be/JXKf1JwVAOE)
* [Part 3 - Implementation without State Machines](https://youtu.be/yczHkTzDnpk)
* [Part 4 - State Machines](https://youtu.be/7jiaQRA-wKI)
* [Part 5 - Homework](https://youtu.be/J0rD_hmsMVo)

[**Lecture #8**](https://www.youtube.com/playlist?list=PLNEK_Ejlx3x0UIixvEQG2Y2mmFL6__pEJ)

* [Part 1 - Introduction](https://youtu.be/mqHifIPefus)
* [Part 2 - Another State Machine Example: Token Sale](https://youtu.be/y5O58-NpnJ4)
* [Part 3 - Automatic Testing using Emulator Traces](https://youtu.be/LG9O8YbBXyM)
* [Part 4 - Test Coverage](https://youtu.be/wJQnQtLxi2E)
* [Part 5 - Interlude: Optics](https://youtu.be/naLA0OMIF1Q)
* [Part 6 - Property-Based Testing with QuickCheck](https://youtu.be/9mrYT9UXLO8)
* [Part 7 - Property-Based Testing of Plutus Contracts](https://youtu.be/49oAwySp6Ys)
* [Part 8 - Homework](https://youtu.be/u2Plwc3Gkrs)

[**Lecture #9**](https://www.youtube.com/playlist?list=PLNEK_Ejlx3x2zSFnzWA4Gbr_AVTz-4rzf)

* [Part 1 - Introduction](https://youtu.be/433VbouC-30)
* [Part 2 - Simon Thompson: Marlowe Overview](https://youtu.be/ce_Yv8BlW7c)
* [Part 3 - Alexander Nemish: Marlowe in Plutus](https://youtu.be/hd-E5DCN8uc)
* [Part 4 - Brian Bush: The Marlowe CLI](https://youtu.be/Vx_ygegrY78)
* [Part 5 - Marlowe Playground Demo](https://youtu.be/l0LXjh8J-go)
* [Part 6 - Homework](https://youtu.be/iYdyUaq_enA)

[**Lecture #10**](https://www.youtube.com/playlist?list=PLNEK_Ejlx3x3EV7FKhlogJgS27dWgwI9B)

* [Part 1 - Introduction](https://youtu.be/AnID8hn68DA)
* [Part 2 - The Private Testnet](https://youtu.be/xhEMEH0C2XU)
* [Part 3 - Plutus & Staking](https://youtu.be/kFi-7HyBN-s)
* [Part 4 - Trying it on the Testnet](https://youtu.be/5cBu4J5RRZ4)
* [Part 5 - Conclusion](https://youtu.be/9oWmDXoxtmI)

**Code Examples**

* Lecture #1: [English Auction](https://github.com/input-output-hk/plutus-pioneer-program/blob/main/code/week01)
* Lecture #2: [Simple Validation](https://github.com/input-output-hk/plutus-pioneer-program/blob/main/code/week02)
* Lecture #3: [Script Contexts & Parameterized Contracts](https://github.com/input-output-hk/plutus-pioneer-program/blob/main/code/week03)
* Lecture #4: [Monads, Traces & Contracts](https://github.com/input-output-hk/plutus-pioneer-program/blob/main/code/week04)
* Lecture #5: [Native Tokens](https://github.com/input-output-hk/plutus-pioneer-program/blob/main/code/week05)
* Lecture #6: [Deployment](https://github.com/input-output-hk/plutus-pioneer-program/blob/main/code/week06)
* Lecture #7: [State Machines](https://github.com/input-output-hk/plutus-pioneer-program/blob/main/code/week07)
* Lecture #8: [Testing](https://github.com/input-output-hk/plutus-pioneer-program/blob/main/code/week08)
* Lecture #9: [Marlowe](https://github.com/input-output-hk/plutus-pioneer-program/blob/main/code/week09)
* Lecture #10: [Staking](https://github.com/input-output-hk/plutus-pioneer-program/blob/main/code/week10)