# Master Student Catalog Addendum #3

# Addendum: Coding Dojo's Master Student Catalog for 2023

About Coding Dojo Master Student Catalog

Coding Dojo's Master Student Catalog is published annually and includes academic policies, procedures, programs, courses, and faculty. Every effort has been made to make the catalog accurate as of the date of publication; however, all policies, procedures, fees, and charges are subject to change.

**Purpose of this Addendum**
The purpose of this addendum is to provide additional information or changes that occurred after the publication of the catalog and to make corrections that could affect student success. It is to be used in conjunction with the Master Student Catalog. This addendum is being provided in order for all curriculum information to be available for advice and program/course selection to better serve students, advisors, and the Coding Dojo community. This addendum may include approved changes or corrections to programs and courses as well as changes in policies and requirements. All changes and additions listed here supersede the information contained in the previous catalog version. All information contained in this addendum is subject to change without notice. Please visit www.codingdojo.com/institutional-disclosures to access the full student catalog.

| Summary of Changes in the Catalog | | |
|---|---|---|
| **Addendum Page** | **Catalog Section (page)** | **Description** |
| 5 | 3. Admission and Enrollment Policies (pp.8) B. Computer Requirements (pp.11) C. Online Admission Procedure | Update of wording for the Cybersecurity Hardware Requirements and the addition of the Hardware Acknowledgement form to Cybersecurity enrollment procedures. |
| 6 | 4. Tuition (pp.17) A. Deposit and Payment Appendix E (pp.137) B. VA Beneficiary Enrollment | Update the cost of deposit from $250 to $99 upon enrollment. |
| 7 | 4. Tuition (pp.22-23) F. Additional Incentives; G. Post-Graduation | Removal of the Referral Program and Alumni Referral Incentives |
| 8-12 | 4. Tuition (pp.16); 6. Program Descriptions | Notice of Change to Program of the Data Science Online Part-Time 16 week program, effective July 2023 |

| | | |
|---|---|---|
| | (pp.30-31) D. Data Science Online Part-Time; Appendix B (pp.100-102) E. Data Science Online Part-Time Course Descriptions and Objectives | Notice of Sunsetting of Data Science Online Part-Time 20 week program, effective July 2023.<br><br>Updating of all Data Science programs from 20 hours per week to 30 hours per week. Update of Program Descriptions<br><br>Removal of Add-a-stack option for Data Science Programs. |
| 13-20 | 6. Program Descriptions (pp.30-31) D. Data Science Online Part-Time; Appendix B (pp.100-102) E. Data Science Online Part-Time Course Descriptions and Objectives | Addition of Data Science Online Part-Time 24 week program; Change to Program of the Data Science Online Part-Time 16 week program effective July 2023<br><br>Updating Program Descriptions for New Data Science programs effective July 2023. |
| 21-24 | 6. Program Descriptions (pp.28-29) C. Software Development Online Programs; Appendix B (pp.86-87) C. Software Development Online Part-Time Accelerated Course Descriptions and Objectives | Updating all of Software Development Part-Time Accelerated programs from 20 hours per week to 30 hours per week<br><br>Updating Software Development Part-Time Accelerated 2 Stack and 3 Stack programs from clock hours to credit hours, effective May 1, 2023 |
| 25-28 | 3. Admission and Enrollment Policies (pp.12) F. Credit for Previous Education, Training, or Experience 6. Program Descriptions (pp.27,34) C. Software Development Online Programs; Appendix B (pp.79) B. Software Development Online Full-Time Course | Addition of Post-Graduation Articulation with Colorado Technical University.<br><br>Updating the Software Development Online Full-Time program from clock hours to credit hours, effective May 1, 2023 |

|  | | |
|---|---|---|
|  | Descriptions and Objectives; Appendix E (pp.137) B. VA Beneficiary Enrollment | |
| 29-32 | Addendum #2 (pp.7-10); 8. Attendance Policies (pp. 40-47) | Reversal on Full-Time attendance addendum adjustment to 80% policy, removal of pause allotment for make-up attendance |
| 33 | 8. Attendance Policies (pp45-46) K. Leave of Absence and Postponement | Updating Leave of Absence and Postponement start policy from date of request to last date of attendance or program activity. |
| 34 | 5. Financing (pp25) | Addition of Information Regarding Title IV Funding Availability |

# B. Computer Requirements

The hands-on activities in the Cybersecurity program will require installation of 6 or more virtual machines (VMs) and to run 2-3 VMs simultaneously.  Each VM may need 2-4 GB of RAM and 20-40 GB of Hard Disk storage.  To ensure you are able to complete all of the hands-on activities effectively, we recommend a computer with the following:

- Memory/RAM: 16GB or more
- Disk Space: 300+ GB free space
- x64 Processor (at minimum): AMD Ryzen 5 or Intel Core i5; dual core CPU at least 2.8 GHz (recommended):AMD Ryzen 7 or Intel Core i7 or greater
- Mac or Windows OS ~~no more than 2 years old and~~ not in beta; If using a Mac you must have a computer with the Intel processor and **not** the M1/M2 processor due to compatibility issues which will not be supported.

Note: if the operating system does not meet the requirements above, Coding Dojo will not be able to help troubleshoot any technical issues the student may encounter. This will likely result in being unable to complete the program.

# D. Online Admission Procedure

**Cybersecurity**

Cybersecurity Online Part-Time:

1. Submit the application
2. Schedule and complete a non-technical interview
3. The admissions team will review the application and provide a decision within one (1) week
4. Acceptance Letter is sent to qualifying applicants
5. Submit a deposit to reserve a seat in the program
6. Sign necessary student enrollment documents, including a hardware acknowledgment
7. Finalize financing
8. Complete a skills assessment. The results of the skills assessment will not affect enrollment status.
9. Complete assigned pre-work

**4. Tuition (pp. 17)**

## A. Deposit and Payment

Once accepted students have viewed the catalog, and signed an enrollment agreement, a $99 deposit is due prior to the start of the program, in order to access course materials and begin onboarding and any pre-coursework. This will be applied to the outstanding balance. The deposit must be paid to Coding Dojo directly, except in cases where the full tuition will be covered by VA Education Benefits or corporate partnerships.

Standard Payment Plans

Standard payment plans are available via Mia Share for all programs. Students will receive notifications from Mia Share when their payments are due. The required deposit may be paid to Coding Dojo or be set as part of the payment plans. Payments will be an equal split of tuition, with the deposit separate if applicable. Payment must be received in order to remain in good standing.

Third Party Payments

Students who choose to utilize a third party for payments (see part 5 - Financing) should have their choice of financing be finalized prior to the first day of class. Students with incomplete financing at the end of the first program week will be required to withdraw and restart the program at the next available start date in order to allow time for financing approval.

**Appendix E - Veterans Information Bulletin  (pp. 137)**

## B. VA Beneficiary Enrollment

VA Beneficiary students are not required to pay the $99 deposit prior to the start of the program, as this is covered by VA education benefits. Thus VA beneficiaries will be given access to pre course materials once they have signed their Enrollment Agreement.

# F. Additional Incentives

**Referral Program**:

Availability: Ongoing and not limited to a time of year

Any individual can receive up to $500 as a check or gift card (various vendors available) for referring new students to the program. New students will receive a $500 reduction to their tuition for verified referrals. Referral information is automatically tracked and verified via Coding Dojo's referring platform. The referred student must meet all enrollment requirements and successfully graduate from the program for the payment to be made to the referring individual. Payment is automatically issued once the referred student enters their third stack if enrolled in the Full-Time program, or when they enter the Projects & Algorithms section of the Part-Time program.

For new students, the Referral Program incentive can be stacked with other promotions.

- Students using VA Education Benefits - not eligible

# G. Post-Graduation

Students using VA Education Benefits are eligible to the following promotions unless otherwise specified.

**Alumni Referral**: Graduates of the program can receive up to $500 as a check or gift card (various vendors available) for referring new students to the program. New students will receive a $500 reduction to their tuition for verified referrals. Referral information is automatically tracked and verified via Coding Dojo's referring platform. The referred student must meet all enrollment requirements and successfully graduate from the program for the payment to be made to the referring individual. Payment is automatically issued once the referred student enters their third stack if enrolled in the Full-Time program, or when they enter the Projects & Algorithms section of the Part-Time program.

For new students, the Alumni Referral incentive can be stacked with other promotions.

- Students using VA Education Benefits - not eligible

**4. Tuition (pp. 16)**

1.  Data Science Online Part-Time:

    16-week Program (change of program effective July 2023)
    
    a.  $11,895 (change of cost to $10,895 effective for July cohorts onward)
    b.  Registration Fee: $100
    c.  STRF (California Only): $2.50 per $1,000
    d.  Other Fees and Costs: $0[1]

2.  20-week Program (discontinued effective July 2023)
    
    a.  $13,895
    b.  Registration Fee: $100
    c.  STRF (California Only): $2.50 per $1,000
    d.  Other Fees and Costs: $0[1]

3.  24-week Program (starting effective July 2023)
    
    a.  $15,895
    b.  Registration Fee: $100
    c.  STRF (California Only): $2.50 per $1,000
    d.  Other Fees and Costs: $0[1]

    ~~Add A Stack (Data Science only)~~
    
    a.  ~~$1900 per stack~~
    b.  ~~Registration Fee: $100~~
    c.  ~~STRF (California Only): $2.50 per $1,000~~
    d.  ~~Other Fees and Costs: $0[1]~~


**6. Program Descriptions (pp. 30-31)**

# D. Data Science Online Part-Time

Program Hour changes effective 4/21/23: Data Science 16 week program and 20 week program

**Program Length**: 16 Weeks-20 Weeks

Total Course Hours for Data Science Online Part-Time 16 week program: 480 hrs (48 lecture, 432 lab/hands-on). This does not include retakes. (change of program effective July 2023)

Total Course Hours for Data Science Online Part-Time 20 week program: 600 hrs (60 lecture, 540 lab/hands-on). This does not include retakes. (discontinued effective July 2023)

**Retake policy**:
Depending on the cohort availability or frequency retakes may not be available,

instead there could be an opportunity for a restart or program pause until the next available stack.

**Program Overview**
The Data Science Online Part-Time program helps to turn data beginners into data pros by teaching a job-applicable balance between practice and theory. Coding Dojo's "Learn by Doing" training will give students hands-on experience in today's most in-demand Data Science technologies and methodologies, from data cleaning all the way to advanced machine learning concepts. ~~Students may extend their program duration by 4 weeks through participation in Data Visualization.~~

## Appendix B  (pp. 100-102)

# E. Data Science Online Part-Time Course Descriptions and Objectives

Program Hour changes effective 4/21/23: Data Science 16 week program and 20 week program

| Course Title | Length | Lecture Hours | Lab Hours | Total Course Hours | Expected Outside Hours |
|---|---|---|---|---|---|
| ~~Python Basics (optional)~~ | ~~2 weeks~~ | ~~6~~ | ~~34~~ | ~~40~~ | ~~n/a~~ |
| *Required courses (stacks)* | | | | | |
| Data Science Fundamentals | 4 weeks | 12 | 108 | 120 | n/a |
| Machine Learning | 4 weeks | 12 | 108 | 120 | n/a |
| Advanced Machine Learning | 4 weeks | 12 | 108 | 120 | n/a |
| Data Enrichment | 4 weeks | 12 | 108 | 120 | n/a |
| **Total** | **16 weeks** | **48** | **432** | **480** | **n/a** |
| *Optionally, students can add the following course (stack)* | | | | | |

| Data Visualization | 4 weeks | 12 | 108 | 120 | n/a |
|---|---|---|---|---|---|

16 week program: 480 Course Hours (48 Lecture, 432 Lab) (change of program effective July 2023)
20 week program: 600 Course Hours (60 Lecture, 540 Lab) (discontinued effective July 2023)

Prerequisite: None

Course Description:
This bootcamp is a deep dive into the fundamentals of data science and machine learning in Python. Throughout the course, students will gain a comprehensive understanding of the entire data science process from end-to-end, including data prep, data analysis and visualization, as well as how to properly apply machine learning algorithms to various situations or tasks. Students will also walk away with a portfolio of projects showcasing data science acumen to prospective employers.

With express pre-approval from staff, and subject to the retake policy, students have a maximum time to complete the program, not including valid leave of absence, postponement, or void stack, as noted below.

- 16 week program - 28 active weeks
- 20 week program - 32 active weeks

A student may use up all three (3) retakes before hitting the active weeks permitted. If a student is unable to complete the program within the set active weeks of enrollment, the student will be placed in review for Academic Dismissal. A student who is withdrawn under such circumstances must re-enroll to receive a Certificate of Achievement. Retake availability is dependent on future course offerings within the active weeks permitted.

Performance Objectives:
- Learn the end-to-end data science process including data prep, data analysis, visualization, as well as use cases for both machine learning and deep learning algorithms
- An understanding the importance of machine learning and future growth of the industry
- Learn how to retrieve and manipulate data using Python and SQL
- A deep understanding of the strengths and weaknesses of different Machine Learning algorithms
- A work applicable understanding of the Data Science process and how to use the methodologies and tools to solve real-world problems in business and academia
- Walk away with a portfolio to showcase to prospective employers

Technologies / Languages / Frameworks / Libraries:
- Python

- Markdown
- ~~SQL~~
- NumPy
- Pandas
- ~~Folium~~
- Matplotlib
- Seaborn
- Google Colaboratory
- SciPy
- Scikit-Learn
- Statsmodels
- JSON
- Github Desktop
- Jupyter Notebook
- XGBoost (optional)
- LightGBM (optional)
- MySQL Workbench
- SQL
- SQLAlchemy
- SQLite
- Keras
- Tensor Flow
- Tableau (20 Week)
- SHAP (20 Week)
- LIME  (20 Week)
- ~~Prophet (20 Week)~~

Skills:

- Fundamentals of coding in Python
- Exploratory Data Analysis (EDA)
- Load, clean, manipulate data in Python
- ~~Statistics~~
- Preprocessing for predictive modeling
- Understanding of Machine Learning
- Regression algorithms
- Classification algorithms
- Model evaluation and optimization
- ~~Training algorithms~~
- ~~Logistic regression algorithms~~
- Unsupervised learning
- Clustering
- Dimensionality Reduction
- Gradient boosting algorithms (optional)
- ~~Kaggle competitions~~
- ~~Database use~~
- Relational Databases
- Extract, Transform, and Load (ETL)

- Hypothesis Testing
- SQL Queries
- Deep learning frameworks (neural networks)
- Obtaining model insights (20 Week)
- Time Series Analysis (20 Week)
- Visualize Data in Tableau (20 Week)

Program of Study changes effective July 2023: Data Analytics & Visualization 16 week program

# D. Data Analytics & Visualization

**Program Length**: 16 Weeks

Total Course Hours for Data Analytics and Visualization program: 480 hrs (48 lecture, 432 lab/hands-on). This does not include retakes.

**Retake policy**:
Depending on the cohort availability or frequency retakes may not be available, instead there could be an opportunity for a restart or program pause until the next available stack.

**Program Overview**
The Data Analytics and Visualization program helps to turn data beginners into data pros by teaching a job-applicable balance between practice and theory. Coding Dojo's "Learn by Doing" training will give students hands-on experience in today's most in-demand Data Science technologies and methodologies, from data cleaning, machine learning, SQL, and Tableau.

**Courses** (see Appendix for course descriptions)

- Data Science Fundamentals - Required
- Introduction to Machine Learning  - Required
- Data Enrichment - Required
- Data Visualization - Required

**Certificate or Diploma**: Certificate of Achievement

**Attendance and Graduation:**

- 90% core assignment completion
- 80% attendance in each stack throughout the program
- Successful passing of all exams to graduate

Upon completing the program requirements and meeting graduation requirements, students receive a Certificate of Achievement for the Data Science Online Part-Time Program.
- Apply common programming concepts using Python.
- Load, explore, and manipulate data with Pandas.
- Perform EDA (Exploratory Data Analysis).
- Create and customize visualizations for reporting
- Format and Pre-Process data for supervised machine learning
- Apply concepts of machine learning to supervised learning tasks
- Optimize machine learning models for improved performance
- Optional: Extract relevant insights from predictive models

- Design and extract information from relational databases
- Apply concepts of the Extract, Transform, and Load (ETL) process
- Perform hypothesis testing
- Write and interpret advanced SQL Queries
- Perform time series analysis in Python
- Produce forecasts with time series data
- Perform effective data analysis and create reporting quality visuals in Tableau
- Create an interactive dashboard in Tableau
- Optional: Perform advanced data analysis in Tableau

# E. Data Science and Machine Learning

**Program Length**: 24 Weeks (start effective July 2023)

Total Course Hours for Data Science and Machine Learning program: 720 hrs (72 lecture, 648 lab/hands-on). This does not include retakes.

**Retake policy**:
Depending on the cohort availability or frequency retakes may not be available, instead there could be an opportunity for a restart or program pause until the next available stack.

**Program Overview**
The Data Science and Machine Learning Program helps to turn data beginners into data pros by teaching a job-applicable balance between practice and theory. Coding Dojo's "Learn by Doing" training will give students hands-on experience in today's most in-demand Data Science technologies and methodologies, from data cleaning, machine learning, SQL, and Tableau. Students also will learn advanced machine learning concepts such as unsupervised learning, deep learning, and Natural Language processing. Students will also walk away with a portfolio of projects showcasing data science acumen to prospective employers.

**Courses**
- Data Science Fundamentals - Required
- Introduction to Machine Learning - Required
- Data Enrichment - Required
- Data Visualization - Required
- Intermediate Machine Learning - Required
- Advanced Machine Learning - Required

**Certificate or Diploma**: Certificate of Achievement

**Attendance and Graduation:**

- 90% core assignment completion
- 80% attendance in each stack throughout the program
- Successful passing of all exams to graduate

Upon completing the program requirements and meeting graduation requirements,

students receive a Certificate of Achievement for the Data Science Online Part-Time Program:

- Apply common programming concepts using Python.
- Load, explore, and manipulate data with Pandas.
- Perform EDA (Exploratory Data Analysis).
- Create and customize visualizations for reporting
- Format and Pre-Process data for supervised machine learning
- Apply concepts of machine learning to supervised learning tasks
- Optimize machine learning models for improved performance
- Optional: Extract relevant insights from predictive models
- Design and extract information from relational databases
- Apply concepts of the Extract, Transform, and Load (ETL) process
- Perform hypothesis testing
- Write and interpret advanced SQL Queries
- Perform time series analysis in Python
- Produce forecasts with time series data
- Perform effective data analysis and create reporting quality visuals in Tableau
- Create an interactive dashboard in Tableau
- Optional: Perform advanced data analysis in Tableau
- Applied unsupervised learning techniques
- Developed and evaluated a sequential neural network
- Process, visualize, and classify text data (NLP)
- Obtain data from unstructured web sources
- Deploy a previously trained model to the cloud
- Apply and evaluate recurrent neural networks

**Appendix B  (pp. 100-102)**

Program of Study changes effective July 2023: Data Analytics & Visualization 16 week program

# E. Data Analytics & Visualization Course Descriptions and Objectives

| Course Title | Length | Lecture Hours | Lab Hours | Total Course Hours | Expected Outside Hours |
|---|---|---|---|---|---|
| *Required courses (stacks)* | | | | | |
| Data Science Fundamentals | 4 weeks | 12 | 108 | 120 | n/a |

| | | | | | |
|---|---|---|---|---|---|
| Introduction to Machine Learning | 4 weeks | 12 | 108 | 120 | n/a |
| Data Enrichment | 4 weeks | 12 | 108 | 120 | n/a |
| Data Visualization | 4 weeks | 12 | 108 | 120 | n/a |
| **Total** | **16 weeks** | **48** | **432** | **480** | **n/a** |

16 week program: 480 Course Hours (48 Lecture, 432 Lab)

Prerequisite: None

Course Description:
This bootcamp is a deep dive into the fundamentals of data science and machine learning in Python. Throughout the course, students will gain a comprehensive understanding of the entire data science process from end-to-end, including data prep, data analysis and visualization, as well as how to properly apply machine learning algorithms to various situations or tasks. Students will also walk away with a portfolio of projects showcasing data science acumen to prospective employers.

With express pre-approval from staff, and subject to the retake policy, students have a maximum time to complete the program, not including valid leave of absence, postponement, or void stack, as noted below.

- 16 week program - 28 active weeks

A student may use up all three (3) retakes before hitting the active weeks permitted. If a student is unable to complete the program within the set active weeks of enrollment, the student will be placed in review for Academic Dismissal. A student who is withdrawn under such circumstances must re-enroll to receive a Certificate of Achievement. Retake availability is dependent on future course offerings within the active weeks permitted.

Performance Objectives:
- Apply common programming concepts using Python.
- Load, explore, and manipulate data with Pandas.
- Perform EDA (Exploratory Data Analysis).
- Create and customize visualizations for reporting
- Format and Pre-Process data for supervised machine learning
- Apply concepts of machine learning to supervised learning tasks
- Optimize machine learning models for improved performance
- Optional: Extract relevant insights from predictive models
- Design and extract information from relational databases

- Apply concepts of the Extract, Transform, and Load (ETL) process
- Perform hypothesis testing
- Write and interpret advanced SQL Queries
- Perform time series analysis in Python
- Produce forecasts with time series data
- Perform effective data analysis and create reporting quality visuals in Tableau
- Create an interactive dashboard in Tableau
- Optional: Perform advanced data analysis in Tableau

Technologies / Languages / Frameworks / Libraries:
- Python
- NumPy
- Pandas
- Matplotlib
- Seaborn
- Google Colaboratory
- SciPy
- Scikit-Learn
- XGBoost
- LightGBM
- SQL
- SQLAlchemy
- SQLite
- Keras
- Tensor Flow
- Markdown
- Statsmodels
- JSON
- Github Desktop
- Jupyter Notebooks

Skills:
- Fundamentals of coding in Python
- Exploratory Data Analysis (EDA)
- Load, clean, manipulate data in Python
- Preprocessing for predictive modeling
- Understanding of Machine Learning
- Regression algorithms
- Classification algorithms
- Model evaluation and optimization
- Unsupervised learning
- Clustering
- Dimensionality Reduction
- Gradient boosting algorithms (Optional)
- Relational Databases
- Extract, Transform, and Load (ETL)
- Hypothesis Testing
- SQL Queries

- Deep learning frameworks (neural networks)

## F. Data Science and Machine Learning Course Descriptions and Objectives

| Course Title | Length | Lecture Hours | Lab Hours | Total Course Hours | Expected Outside Hours |
|---|---|---|---|---|---|
| *Required courses (stacks)* | | | | | |
| Data Science Fundamentals | 4 weeks | 12 | 108 | 120 | n/a |
| Introduction to Machine Learning | 4 weeks | 12 | 108 | 120 | n/a |
| Data Enrichment | 4 weeks | 12 | 108 | 120 | n/a |
| Data Visualization | 4 weeks | 12 | 108 | 120 | n/a |
| Intermediate Machine Learning | 4 weeks | 12 | 108 | 120 | n/a |
| Advanced Machine Learning | 4 weeks | 12 | 108 | 120 | n/a |
| **Total** | **24 weeks** | **72** | **648** | **720** | **n/a** |

24 week program: 720 Course Hours (72 Lecture, 648 Lab)

Prerequisite: None

Course Description:
This bootcamp is a deep dive into the fundamentals of data science and machine learning in Python. Throughout the course, students will gain a comprehensive understanding of the entire data science process from end-to-end, including data prep, data analysis and visualization, as well as how to properly apply machine learning algorithms to various situations or tasks. Students will also walk away with a portfolio of projects showcasing data science acumen to prospective employers.

With express pre-approval from staff, and subject to the retake policy, students have a maximum time to complete the program, not including valid leave of absence, postponement, or void stack, as noted below.

- 24 week program - 36 active weeks

A student may use up all three (3) retakes before hitting the active weeks permitted. If a student is unable to complete the program within the set active weeks of enrollment, the student will be placed in review for Academic Dismissal. A student who is withdrawn under such circumstances must re-enroll to receive a Certificate of Achievement. Retake availability is dependent on future course offerings within the active weeks permitted.

Performance Objectives:
- Apply common programming concepts using Python.
- Load, explore, and manipulate data with Pandas.
- Perform EDA (Exploratory Data Analysis).
- Create and customize visualizations for reporting
- Format and Pre-Process data for supervised machine learning
- Apply concepts of machine learning to supervised learning tasks
- Optimize machine learning models for improved performance
- Optional: Extract relevant insights from predictive models
- Design and extract information from relational databases
- Apply concepts of the Extract, Transform, and Load (ETL) process
- Perform hypothesis testing
- Write and interpret advanced SQL Queries
- Perform time series analysis in Python
- Produce forecasts with time series data
- Perform effective data analysis and create reporting quality visuals in Tableau
- Create an interactive dashboard in Tableau
- Optional: Perform advanced data analysis in Tableau
- Applied unsupervised learning techniques
- Developed and evaluated a sequential neural network
- Process, visualize, and classify text data (NLP)
- Obtain data from unstructured web sources
- Deploy a previously trained model to the cloud
- Apply and evaluate recurrent neural networks

Technologies / Languages / Frameworks / Libraries:
- Python
- NumPy
- Pandas
- Matplotlib
- Seaborn
- Google Colaboratory
- SciPy
- Scikit-Learn
- XGBoost

- LightGBM
- SQL
- SQLAlchemy
- SQLite
- Keras
- Tensor Flow
- Markdown
- Statsmodels
- JSON
- Github Desktop
- Jupyter Notebooks
- Tableau
- SHAP
- LIME

Skills:
- Fundamentals of coding in Python
- Exploratory Data Analysis (EDA)
- Load, clean, manipulate data in Python
- Preprocessing for predictive modeling
- Understanding of Machine Learning
- Regression algorithms
- Classification algorithms
- Model evaluation and optimization
- Unsupervised learning
- Clustering
- Dimensionality Reduction
- Gradient boosting algorithms (Optional)
- Relational Databases
- Extract, Transform, and Load (ETL)
- Hypothesis Testing
- SQL Queries
- Deep learning frameworks (neural networks)
- Obtaining model insights
- Time Series Analysis
- Visualize Data in Tableau

# C. Software Development Online Programs

## Software Development Online Part-Time Accelerated
**Typical Program Length**: 18 Weeks, 26 Weeks, or 34 Weeks

Option 1: Total Course Hours for Software Development Online Part-Time Accelerated 1 Stack bundle: 540 hrs (52 lecture, 488 lab). This does not include the expected additional few hours of outside class work per week.

Option 2: Total Course Hours for Software Development Online Part-Time Accelerated 2 Stack bundle: 24 quarter credit hours, or the equivalent of 780 hrs (76 lecture, 704 lab). This does not include the expected additional few hours of outside class work per week.

Effective for programs starting May 1, 2023 and onward, This option is a credit-bearing certificate program offered in conjunction with Colorado Technical University, which is accredited by the Higher Learning Commission. https://www.coloradotech.edu/about/accreditations

Option 3: Total Course Hours for Software Development Online Part-Time Accelerated 3 Stack bundle: 30 quarter credit hours, or the equivalent of 1,020 hrs (100 lecture, 920 lab). This does not include the expected additional few hours of outside class work per week.

Effective for programs starting May 1, 2023 and onward, this option is a credit-bearing certificate program offered in conjunction with Colorado Technical University, which is accredited by the Higher Learning Commission. https://www.coloradotech.edu/about/accreditations

**Notes:**
Should a student purchase the 1 or 2 stack option and decide to add onto their program, students have the option to purchase additional stacks. Additional stacks add $4000 per stack to the cost of the program and are not eligible for scholarships or incentives. Students are encouraged to ask about bundling prior to the start of the Projects and Algorithms stack.

Students that purchased the 2 or 3 stack option may also choose to remove bundles from their program. Stacks may only be removed if the student has no attendance or activity in the stack and must be requested prior to the stack start date. Removed stacks will reduce the cost of the program and may result in a refund or third party adjustment.

**Program Overview**
In the Software Development Online Part-Time Accelerated program, students master the fundamental building blocks of web and software development.

Students learn the basics of how the web works, front-end development, back-end development, and database development; thus, making them highly valuable as an entry-level software developer. Students select either one, two, or three stack bundles as their program of study. Beginning with an introduction to web fundamentals, students learn basic HTML, CSS, and JavaScript to design and manipulate user interfaces. Then, based on the number of stacks they selected, students explore one, two, or three popular back-end languages and technologies to master the request-response cycle to manage and manipulate data. By the end of the program, students will have gained the necessary skills to become an entry-level developer.

This program is Ideal for students interested in web development who cannot attend the onsite program.

**Courses** (see Appendix for course descriptions)
- Programming Basics - Required(starting Q1 2023)
- Web Fundamentals - Required
- A selection of the following based on stack bundle option (minimum 1 required)
  - Python
  - JavaScript
  - Java
- Projects and Algorithms - Required

**Certificate or Diploma**: Certificate of Achievement
Upon completing the program requirements and meeting graduation requirements, students receive a Certificate of Achievement for the Software Development Online Part-Time Accelerated Program. The certificate indicates, the student will be able to:
- Function as an entry-level developer by practicing coding techniques and communicating technical aspects of a project.
- Seek entry-level employment in various fields of technology including, but not limited to, web development, software development, software engineering, web design, quality assurance and testing.

**Appendix B  (pp. 100-102)**

# C. Software Development Online Part-Time Accelerated Course Descriptions and Objectives

| Course Title | Length | Lecture Hours | Lab Hours | Total Course Hours | Expected Outside Hours | Quarter Credit Hours (for applicable programs)** |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |

| Required courses (stacks) | | | | | | |
|---|---|---|---|---|---|---|
| Programming Basics | 2 weeks*** | 4 | 56 | 60 | 15 | 0 |
| Web Fundamentals | 4 weeks | 12 | 108 | 120 | 30 | 6 |
| Python | 8 weeks | 24 | 216 | 240 | 60 | 6 |
| Projects & Algorithms | 4 weeks | 12 | 108 | 120 | 20 | 6 |
| **Total** | **18 weeks** | **52** | **488** | **540** | **125** | |
| Based on stack bundle selected, students can add the following courses (stacks) | | | | | | |
| JavaScript | 8 weeks | 24 | 216 | 240 | 60 | 6 |
| Java | 8 weeks | 24 | 216 | 240 | 60 | 6 |

Online Part-Time has the same program and course objectives, just over a longer period of time to allow for students to work at a more flexible pace.

*Please note that specific course offerings are subject to change due to industry demand, however the course offerings **will** be chosen from the listed stacks.

**Quarter credit hours are only available to students who complete the Two Stack or Three Stack options and have a valid proof of high school graduation, GED or its equivalent on file.

***Adjusted and/or added stack course shall take effect on March 2023.

The Software Development Online Part-Time Accelerated Program is 18 to 34 weeks, depending on the number of bundled stacks.

Effective for programs starting May 1, 2023, the Online Part-Time Accelerated Two Stack (26 week) and Three Stack (34 week) programs are credit-bearing certificate programs offered in conjunction with Colorado Technical University, which is accredited by the Higher Learning Commission.
https://www.coloradotech.edu/about/accreditations
26 Week Total: 24 Quarter Credit Hours
34 Week Total: 30 Quarter Credits Hours

With express pre-approval from staff, and subject to the retake policy, students have

a maximum time to complete the program, not including valid leave of absence, postponement, or void stack. See below for a breakdown based on bundling options.

- One stack - 42 active weeks
- Two stacks - 50 active weeks
- Three stacks - 58 active weeks

A student may use up to three (3) retakes before hitting the maximum number of weeks permitted in the list above. If a student is unable to complete the program within the aforementioned active weeks of enrollment, the student will be placed in review for Academic Dismissal. A student who is withdrawn under such circumstances must re-enroll to receive a Certificate of Achievement.

## F. Credit for Previous Education, Training, or Experience

Coding Dojo is unable to accept credit from other educational programs or award credit for prior experiential learning. All applicants are required to have a high school diploma, GED, or equivalent.

Coding Dojo does not accept transfers from other school programs and does not accept any academic credit(s) transferred from any other institution.

~~Coding Dojo does not participate in any articulation or transfer agreements with any other schools.~~

## G. Post-Graduation Articulation

Credit-bearing certificate programs at Coding Dojo can be applied to credits of a degree program at Colorado Technical University. If you have questions, please reach out to Colorado Technical University.

**Software Development Programs**

Effective for programs starting May 1, 2023 and onward, students who successfully completed any of the following credit-bearing Software Development programs can optimally apply these credits toward a Bachelors of Science in Information Technology at Colorado Technical University with a General Concentration (aka BSIT - General Concentration). Credits may be applied to fulfill electives for other programs at Colorado Technical University, however that is dependent on the specific program to which a student seeks to have the credits applied.

- Software Development Online Full-Time (24 quarter credit hours)
- Software Development Online Part-Time Accelerated 2 Stack (24 quarter credit hours)
- Software Development Online Part-Time Accelerated 3 Stack (30 quarter credit hours)

Students must have valid proof of high school diploma, GED or its equivalent to be awarded credit.

At this time, students in Coding Dojo who transfer into or out of a credit-bearing program may or may not be eligible for credit for the classes they have completed. Students are encouraged to bring their Coding Dojo transcript for prior learning review with Colorado Technical University

**Transfer of Credit to Other Schools**

Coding Dojo and Colorado Technical University do not imply or guarantee that credits completed through Coding Dojo will be accepted or transferable to any other college, university, or institution. Each institution has its own policies governing the acceptance of credit from other institutions such as Colorado Technical University.

**6. Program Descriptions (pp. 27, 34)**

# C. Software Development Online Programs

## Software Development Online Full-Time

**Typical Program Length**: 16 Weeks
Effective for programs starting May 1, 2023 and onward, this is a credit-bearing certificate program offered in conjunction with Colorado Technical University, which is accredited by the Higher Learning Commission.
https://www.coloradotech.edu/about/accreditations

Total Course Hours for Software Development Online Full-Time: 24 quarter credit hours, or the equivalent of 640 hrs (240 lecture, 400 lab/hands-on). This does not include the expected additional 40-60 hours of outside class work per week. This does not include any retakes.

**Program Overview**
In the Software Development Online Full-Time program, students master the fundamental building blocks of web and software development. Students learn the same skills as onsite they learn the basics of how the web works, front-end development, back-end development, and database development; thus, making them highly valuable as an entry-level software developer. Beginning with an introduction to web fundamentals, students learn basic HTML, CSS, and JavaScript to design and manipulate user interfaces. Then, students explore a set of popular back-end languages and technologies to master the request-response cycle to manage and manipulate data. By the end of the program, students will have gained the necessary skills to become an entry-level developer.

**Courses** (see Appendix for course descriptions)
- Programming Basics - Required(starting Q1 2023)
- Web Fundamentals - Required
- Python - Required
- Javascript - Required
- Students may select either Java or C# / .NET - Required

**Note:** A student cannot change from Java to C# (or from C# to Java) if the student has program progress in one of the two stacks.

**Certificate or Diploma**: Certificate of Achievement
Upon completing the program requirements and meeting graduation requirements, students receive a Certificate of Achievement for the Software Development Online Full-Time Program. The certificate indicates, the student will be able to:
- Function as an entry-level developer by practicing coding techniques and

communicating technical aspects of a project.
- Seek entry-level employment in various fields of technology including, but not limited to, web development, software development, software engineering, web design, quality assurance and testing

## G. Credit-Bearing Certificate Programs

Below are the only programs at Coding Dojo that can result in a credit-bearing certificate offered in conjunction with Colorado Technical University, which is accredited by the Higher Learning Commission.
https://www.coloradotech.edu/about/accreditations

**Software Development Certificates**
Effective for programs starting May 1, 2023 and onward, students who successfully completed any of the following Software Development programs qualify to receive a credit bearing certificate from Colorado Technical University.
- Software Development Online Full-Time: a certificate worth 24 quarter credit hours
- Software Development Online Part-Time Accelerated 2 Stack: a certificate worth 24 quarter credit hours
- Software Development Online Part-Time Accelerated 3 Stack: a certificate worth 30 quarter credit hours

**Appendix B  (pp. 79)**

## B. Software Development Online Full-Time Course Descriptions and Objectives

| Course Title | Length | Lecture Hours | Lab Hours | Total Course Hours | Expected Outside Hours | Quarter Credit Hours |
|---|---|---|---|---|---|---|
| *Required courses (stacks)* | | | | | | |
| Programming Basics | 1 week** | 15 | 25 | 40 | 30 | 0 |
| Web Fundamentals | 3 weeks** | 45 | 75 | 120 | 90 | 6 |
| Python | 4 weeks | 60 | 100 | 160 | 120 | 6 |
| JavaScript | 4 weeks | 60 | 100 | 160 | 120 | 6 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Java or C# / .NET | 4 weeks | 60 | 100 | 160 | 120 | 6 |
| **Total Required** | **16 weeks** | **240** | **400** | **640** | **480** | **24** |

\*\*Adjusted and/or added stack course shall take effect on February 2023.

The Software Development Online Full-Time Program is 16 weeks

Effective for programs starting May 1, 2023 and onward, this is a credit-bearing certificate program offered in conjunction with Colorado Technical University, which is accredited by the Higher Learning Commission. https://www.coloradotech.edu/about/accreditations

Total Credit Hours: 24 quarter credit hours

With express pre-approval from staff, and subject to the retake policy, students have a maximum time of 28 active weeks to complete the program, not including valid leave of absence, postponement, or void stack. If a student is unable to complete the program within 28 active weeks of enrollment, the student will be placed in review for Academic Dismissal. A student who is withdrawn under such circumstances must re-enroll to receive a Certificate of Achievement.

### Appendix E - Veterans Information Bulletin  (pp. 137)

## B. VA Beneficiary Enrollment

All VA Beneficiaries are required to provide a Certificate of Eligibility prior to the first day of class. Any additional VA documentation required for enrollment, including but not limited to VA Forms 22-1995 and 22-1990, must be submitted to vetadmissions@codingdojo.com prior to the first day of class (outlined in section N. below).

If Coding Dojo can not verify VA benefits eligibility and entitlement; service members, Veterans, and/or dependents are responsible to cover any and all costs related to services rendered by Coding Dojo. These costs include but are not limited to tuition and fees.

While Coding Dojo is unable to accept/award credit for previous education, it is evaluated for suitability in the program. All applicants are required to have a high school diploma, GED, or equivalent.  **VA requires that we collect, review, and document prior education of all VA beneficiaries. For any program that is credit bearing, valid proof of high school diploma, GED, or its equivalent must be on file with and accepted by Coding Dojo prior to issuance of credit.**

## A. Software Development Onsite Full-Time Attendance Policy

Daily attendance is taken by Coding Dojo instructional staff. Students are required to be present for a **minimum of 80%** of class course hours for each stack. Excused absences are not counted against a student's attendance percentage, with prior approval and relevant documentation (see section C. Full-Time Excused Absence).

If a student has more than 20% unexcused absences for each scheduled stack time, the student will need to attend make-up sessions before the end of the stack. Unexcused attendance exceeding 20% at the end of a stack will require a retake or otherwise be dismissed from the program. Any student who is absent for three (3) consecutive days (24 hours) without prior approval or excused absence, will be dismissed from the program.
- 2 week stack - maximum of 2 days (16 hours)  or 6 cumulative sessions unexcused
- 4 week stack - maximum of 4 days (32 hours) or 12 cumulative sessions unexcused

Tardiness Policy:
- Physical Onsite Locations - students who arrive late or leave early exceeding 20 minutes will be considered as 'Absent' for the day.
- Onsite Programs Temporarily Hosted Online - students who arrive late or leave early exceeding 10 minutes will be considered as 'Absent' for the session.

## B. Software Development Online Full-Time Attendance Policy

Daily attendance is taken three times a day (sessions): once during morning algorithms, once following lecture, and once in the afternoon. **Effective for students starting on May 1, 2023 and after**, students are required to be present for a **minimum of 80%** of class course hours for each stack. Excused absences are not counted against a student's attendance percentage, with prior approval and relevant documentation (see section C. Full-Time Excused Absence).

If a student has more than 20% unexcused absences for each scheduled stack time, the student will need to attend make-up sessions before the end of the stack. Unexcused attendance exceeding 20% at the end of a stack will require a retake or otherwise be dismissed from the program. Any student who is absent for three (3) consecutive days (24 hours) without prior approval or excused absence, will be dismissed from the program.

- 1 week stack[1] - maximum of 1 days or 3 cumulative sessions unexcused
- 2 week stack - maximum of 2 days or 6 cumulative sessions unexcused
- 3 week stack – 3 days (18 hours) or 9 cumulative sessions unexcused
- 4 week stack - maximum of 4 days or 12 cumulative sessions unexcused

**Effective for students starting prior to May 1, 2023**, students are required to be present for a **minimum of 90%** of class course hours for each stack.  Excused absences allowed for up to 10% of the class length, with prior approval and relevant documentation (see section C. Full-Time Excused Absence).

Any student who is absent for three (3) consecutive days without prior approval or excused absence, or absent more than 10% of each scheduled stack time at the end of the stack, whichever is less, will be required to withdraw from the program. Students with unexcused absences or excused absences in excess of 10% will need to attend a make-up session.

Tardiness Policy:
- Students who arrive after the start of a session but less than 10 minutes will be considered as 'Late' for that session.
- Students who arrive late or leave early exceeding 10 minutes will be considered as 'Absent' for the session.
- For every 3 late sessions a student will count as being an unexcused absence for 1 session.

## C.  Software Development Full-Time Excused Absence Policy

Instructional staff may **excuse up to 10%** of a student's attendance for special or mitigating circumstances outside the control of the student. In those cases, the circumstances must be provided, in writing, within one (1) business day of returning to class. Below are acceptable forms of documentation for excused absences:
- Documentation of physical or mental health circumstances, signed by a licensed health professional
- Documentation of Force Majeure or Mitigating Circumstances, accepted as a signed document or signed written statement (see Section 8 Part K)

Students may also request an excused absence in cases of illness, the death of a close relative, or when observing a religious holiday. Excused absences will be tracked by instructional staff and require documentation if requested retroactively. Students are permitted no more than the following excused absences based on the duration of the stack.

- 1 week stack - 1 full day (8 hours) or 3 cumulative sessions excused

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[1]  In the interest of both learning experience and the reality of force majeure and mitigating circumstances, 1 week stacks in the full-time program(s) allow for 1 excused absence and 1 unexcused absence, which is greater than 10% of stack attendance, but less than 20% total absences allowed.

- 2 week stack - 1 full day (8 hours) or 3 cumulative sessions excused
- 3 week stack – 1 and a half days (12 hours) or 4 cumulative sessions excused
- 4 week stack - 2 full days (16 hours)  or 6 cumulative sessions excused

## J. Retake Attendance Policy

Retakes for stacks are contingent upon meeting attendance requirements.

All program stacks that are four (4) weeks or shorter are required to meet the attendance policy as noted above to be eligible to retake a failed stack.

Program stacks that are longer than four (4) weeks may be eligible to retake a stack at the half-way mark in the stack, provided the student has been in good attendance through that portion of the program and there will be no gap in attendance resulting from the retake. If a student has attended more than 50% of a longer stack, the student must meet minimum attendance requirements for their respective program to be eligible for retakes.

Students in the Software Development Full-Time programs may utilize make-up sessions in-stack to meet attendance requirements. If a retake is required due to not meeting attendance requirements by the end of the stack, the student will be permitted to retake for free as long as the following conditions are met.
- The student has available retakes (maximum of three (3) per program)
- The student has available retake waivers (maximum of two (2) per program)

~~This exception will be reviewed if courses are changed in hour classification.~~

Any program gaps should be addressed separately with the Leave of Absence and Postponement policy. Retakes restart a stack from the beginning and have the same attendance policies for the associated program.

## L. Program Pause

A student's program is considered to be "paused" if the student is available to attend classes, but the specific class or stack is not available from Coding Dojo. This includes but is not be limited to
- gaps in cohort availability
- student's return date from postponement or leave of absence falls in-between stack start dates
- the closest available stack for a retake has a lecture cadence that cannot be accommodated by the student (pertaining to Online Part-Time programs only)
- other circumstances that are on the side of Coding Dojo and out of the student's control

Paused status will not apply to personal preference or to program limitations accepted by a student during enrollment (eg: a student's program cannot be paused to take stacks in a certain order of preference). Paused status also cannot be used to

excuse students from meeting attendance or academic requirements should the student request to retake in the middle of an ongoing stack.

Students are expected to maintain attendance and academic participation until the end of the current stack or the start of the retake, whichever is less, unless the student has mitigating circumstances requiring a leave of absence or postponement.

~~Software Development Full-Time students are also permitted to utilize a maximum of four (4) weeks program pause for the purpose of attending attendance make-up sessions in order to meet new program attendance requirements. If a student fails to meet attendance requirements by the end of the program pause, the student will be required to retake the stack. This exception will be reviewed if courses are changed in hour classification.~~

All instances of program pauses will be reviewed by Student Support prior to clearance. In the event that the student needs a specific lecture cadence, the student will be required to provide proof of that need in order to be considered paused, such as a copy of a work schedule. The student will only be on pause until the agreed upon stack start date. Further extension may require postponement or leave of absence.

# K. Leave of Absence and Postponement

**Leave of Absence**

Students with proper supplementing documentation for extreme mitigating circumstances are permitted a leave of absence (LOA) period of up to eight (8) weeks. A student may utilize a leave of absence once per program. The LOA will extend from the last date of attendance, a maximum of eight (8) weeks, until the next start date of either the same stack or the next stack in sequence. Students who postpone following a void stack request may start their postponement following the end of the voided stack and at the start of the next available stack..

Examples of circumstances that constitute a valid leave of absence request include but are not limited to:
- written documentation of an emergency situation
- documentation signed by a licensed health professional to account for medical circumstances for the student or individual in the primary care of the student
- Notice of death (certificate or obituary) for a close friend or relative
- Active duty military deployment or Reserve/National Guard Mobilization (see appendix E, section H)

**Postponement**

A student may postpone once per program for up to four (4) weeks and will need documentation for Force Majeure or Mitigating Circumstances, accepted as a signed document or signed written statement from the student. A student may utilize a postponement once per program. The postponement will extend from the last date of attendance, a maximum of four (4) weeks, until the next start date of either the same stack or the next stack in sequence. Students who postpone following a void stack request may start their postponement following the end of the voided stack and at the start of the next available stack.

If the affected stack meets all the requirements to be voided, students going on a leave of absence or a postponement will have the affected stack automatically voided unless explicitly requested otherwise.

# 5. Financing

Students have the option to either pay tuition in full prior to the start of class, set up a 0% interest installment plan, or finance tuition through a Coding Dojo financing partner. If a student chooses to take out a loan to finance the program, that student is not obligated to choose any lender associated with Coding Dojo, and Coding Dojo receives no benefit if partners are selected. If a student chooses to pursue financing, keep in mind that there may be multiple other options available. Coding Dojo encourages students to explore all financing options fully before working with any lender. Please see section 4B: Late Payments for policy on delinquent program dues.

Student loans must be repaid with interest, and taking out a loan is a big decision. Before entering into a student loan, students should ensure that they have read and fully understand both the loan terms and repayment obligations.

**Workforce and Worker Retraining Programs**
Where possible, Coding Dojo will work with state programs to help students with covering tuition. Please check with an admissions advisor to find out if a campus participates in any of these programs and whether the student qualifies.

**Funding Availability**
While Coding Dojo, as part of Colorado Technical University, is part of a Title IV eligible institution offering Title IV eligible programs, Coding Dojo has elected and designated some of its programs as not participating in Title IV federal financial aid programs. If a program is designated in this manner, it will be noted in its catalog description. This means students enrolling in this program may not use Federal Student Aid to help pay for this program. Instead, Coding Dojo offers a variety of payment options for students.