# Bloom Institute of Technology

## Course Catalog

January 1, 2024 – December 31, 2024

**Volume II**

149 New Montgomery Street, 4th floor, San Francisco, CA 94101
Mailing Address:548 Market St STE 69148, San Francisco, CA 94101
*Instruction is delivered online and there is no physical location for students to attend classes. If a student would like to meet in person they can coordinate a time to meet via the Portal.*
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# WELCOME MESSAGE

Welcome to Bloom Institute of Technology, and congratulations on taking the first step toward a high-paying career in tech.

The most important thing we tell new Bloom Institute of Technology students is: commit now to hustling harder than you ever have before.

You have a critical opportunity to develop your skills between now and graduation, and there's a good chance that the next several months will swing the trajectory of your career more than any others. Your time at Bloom Institute of Technology will be some of the most intense, impactful months of your life – now is the time to put your head down and work, and every instructor, career coach, and staff member will do everything possible to help you succeed.  We're so excited that you're here.

Let's get started.

Sincerely,

Austen Allred,
Co-Founder & CEO

# MISSION

The mission of Bloom Institute of Technology is to unlock potential, regardless of circumstance. That means working with untapped or underutilized talent, and training that talent for in-demand careers in the technology fields including web development, engineering, data science, and enterprise backend development .

Bloom Institute of Technology is committed to making the field of technology more accessible, and will provide an educational environment that respects the values of individual students and their intellectual, cultural, and social development. It is Bloom Institute of Technology's intention to:

- Foster among students, faculty, and staff a commitment to life-long learning.
- Provide opportunities for students to exercise a positive influence and be productive in society.
- Prepare students for entry-level employment in technology fields including web development, software engineering and data science.

# OBJECTIVES

In order to fulfill its mission, Bloom Institute of Technology is committed to the following objectives for its educational and training programs:

- To provide the basic and prerequisite knowledge to specialize in the field of technology via online learning on Zoom and multiple tools.
- To educate students to become well-qualified professionals in their chosen field of Data Science, Enterprise Backend Development, or Full Stack Web Development.
- To provide practical training to enhance students' capabilities in their program.

# APPROVAL

Bloom Institute of Technology is a private institution approved to operate by the California Bureau for Private Postsecondary Education. Approval to operate means the institution is compliant with the minimum standards contained in the California Private Postsecondary Education Act of 2009 (as amended) and Division 7.5 of Title 5 of the California Code of Regulations.

# HISTORY

Founded in 2017, Bloom Institute of Technology ("BloomTech") is a unique model of higher education in which the institution invests in its students, instead of the other way around. Bloom Institute of Technology requires no upfront tuition. Tuition payments do not begin until students find a job providing an annual salary of at least $50,000. This commitment from Bloom Institute of Technology supports its mission of finding untapped or underutilized talent and training that talent for in-demand jobs in technology. The institution has an office in San Francisco, CA, and students attend

remotely.

## FACILITY AND EQUIPMENT

Bloom Institute of Technology offers training online in a virtual classroom. Students complete distance education coursework at a location they determine.

System Requirements

- Minimum
  - 1.6 GHz Processor
  - 4 GB RAM
  - 120 GB Hard Drive
  - Web Cam
  - Microphone
  - Consistent access to internet, e.g., Wi-Fi
- Recommended
  - 2 GHz Processor
  - 16 GB RAM
  - 256 GB Hard Drive (preferably solid state)

Recommended operating systems (in descending order): macOS, Windows 10 Pro, Ubuntu.

Students using other versions of Windows will likely encounter major issues with virtualization tools that are required for completing coursework. Instructors will not be able to provide technical support in these cases. For this reason, Bloom Institute of Technology recommends *only* Windows 10 Pro for PC users.

Chromebooks are *not* supported, as coursework involves installing and running software locally.

## TUITION AND FEES

| Items | Registration Fee Partially Refundable | *Student Recovery Fund (STRF) Non-Refundable | Tuition | **Total Cost |
|---|---|---|---|---|
| **Total cost for all programs (New Students)** | $0 | $47.50 | $19,000 | $19,047.50 |
| **Total cost for all programs (Readmissions Students)** | $500 | $0.00 | $19,000 | $19,500 |

*STRF: $2.50 for every $1,000 of tuition rounded to the nearest $1,000. STRF is not due for readmission students if STRF was previously collected and is stated in the student's enrollment agreement.

****Cost of total charges for a period of attendance and estimated schedule of total charges for the entire educational program.

# TUITION PAYMENT OPTIONS

**Pay tuition in one sum:**

- Students owe the full tuition amount after they sign the Enrollment Agreement and before their first day of instruction.

**3 Part Installment Plan:**

- **DATA SCIENCE & WEB PROGRAMS -** Students owe the first installment after they sign the Enrollment Agreement, the second installment is due by the first day of sprint 7, and the third installment is due by the first day of sprint 13.
- **ENTERPRISE BACKEND PROGRAM -** Students owe the first installment after they sign the Enrollment Agreement, the second installment is due by the first day of sprint 10, and the third installment is due by the first day of sprint 19.

**Deferred Tuition:**

- Students may pay tuition, in full or in part, via deferred tuition. Deferred tuition is a third party loan offered by a third party. If the amount of your loan is for less than the Total Tuition, students must pay the remaining balance as invoiced by Bloom Institute of Technology. Bloom Institute of Technology will refund all amounts, if applicable to the third party lender.

**Tuition installment payments are due before the start of the first day of each respective Sprint. Failure to make required tuition payments, on any plan, may result in academic suspension and/or withdrawal.**

# TUITION RESPONSIBILITY

Students are responsible for paying the full tuition amount listed above. If a student obtains a loan, financing, and/or other payment arrangement, that student is responsible for repaying the amount owed under agreement, or loan amount plus any interest or the amount owed, as applicable, in each case less the amount of any applicable refund if that student withdraws or is withdrawn. Once a student enrolls, the tuition amount will not and cannot be changed based on any factor other than Sprints ended as noted in this Catalog.

Tuition installment payments are due before the start of the first day of each respective Sprint. Failure to make required tuition payments, on any plan, may result in academic suspension and/or withdrawal.

Bloom Institute of Technology does not issue 1098-T or other tax forms for payments of upfront tuition or on your outcomes based loan.

# STUDENT HOLIDAYS

Bloom Institute of Technology does not observe any student holidays or have scheduled vacation periods. Students' access to and consumption of curriculum will not be interrupted based on federal holidays or vacations. Students can take breaks at their leisure as long as they do not exceed the maximum program length or remain inactive as detailed in the Attendance and Engagement policy.

# STAFF HOLIDAYS

BloomTech Staff will observe the below holidays and vacation breaks. Support staff may be limited but live lectures and support will still be available. The following are staff holidays:

- Martin Luther King, Jr. Day – third Monday of January
- Presidents Day – third Monday of February
- Memorial Day – last Monday of May
- Juneteenth - June 19th, or the following Monday if this date falls on a weekend
- Independence Day - July 4th, or the following Monday if this date falls on a weekend
- Labor Day – first Monday in September
- Indigenous People's day - Second Monday in October
- Veterans Day - Fourth Monday in October
- Thanksgiving - last Thursday and Friday of November
- Winter Break – December 22st - January 2nd

# ENROLLMENT PERIODS

Enrollment happens on a rolling basis. Students can begin the program when they are ready, independently or as part of a cohort. Students may start the program once all required enrollment steps are completed including, but not limited to, signing the Enrollment Agreement, finalizing tuition options, completing pre-course work (if applicable), and completing the orientation program (if applicable). A student's start date is located on their signed Enrollment Agreement.

Students must progress to sprint three within thirty (30) days of the start date listed on their Enrollment Agreement. Failure to progress to sprint three within thirty (30) days may lead to the student being withdrawn.

# PROGRAM TERM DATES

Timeframe for completion is calculated from the start date of the program as listed in the student's Enrollment Agreement. Please see below for your program's term date.

### Data Science and Full Stack Web Development:

The anticipated completion date for Data Science or Full Stack Web Development students is six (6) months from the student's start date. Students may finish the program sooner or later, depending on their personal pace and needs in the program. As a result, the actual completion date(s) may be before or after 6 months, as long as the completion date is within the Maximum Program Length. The anticipated completion date for the student's program does not include any holidays, breaks, repeat courses, or leaves of absences the student may take.

### Enterprise Backend Development:

The anticipated completion date for Enterprise Backend Development students is nine (9) months from the student's start date. Students may finish the program sooner or later, depending on their personal pace and needs in the program. As a result, the actual completion date(s) may be before or after 9 months, as long as the completion date is within the Maximum Program Length. The anticipated completion date for the student's program does not include any holidays, breaks, repeat courses, or leaves of absences the student may take.

## MAXIMUM PROGRAM LENGTH

We believe that students that put in the work can be successful in the program regardless if they move quickly or need a little additional time with the curriculum. Students should be able to progress through and complete the program to earn a certificate of completion in a timely manner.

The maximum allotted timeframe for completion of the program does not override other policies within this catalog, the Enrollment Agreement, or the Student Guide regarding academic progression and/or successful completion. A student who is unable to successfully complete the program within the maximum allotted time frame outlined below may be withdrawn to prevent unintentional interest accrual.

Students with an extenuating circumstance may reach out via support ticket within the Portal to request an extension. If a student is withdrawn from Bloom Institute of Technology, the tuition proration policy will apply based on when they were withdrawn.

**Data Science, Full Stack Web Development, Enterprise Backend Development**

- Data Science, Full Stack Web Development, and Enterprise Backend Development students must complete the program within 18 consecutive calendar months.
- Timeframe for completion is calculated from the start date of the program as listed in the student's Enrollment Agreement, and is the same regardless of any observed holidays, Leave of Absence taken, or BloomTech office closure during the 18-month span.
- Students who are withdrawn for not completing their program in 18 months cannot be readmitted.

## CURRICULUM PACING

Sprint progression and sprint completion in a timely manner are important to your coding development and growth. You may be reset to the start of the sprint you are in if you take more than twenty (20) days to complete that sprint. Examples of when this would be done include if necessary to ensure you are prepared for the next sprint or in

the event of a curriculum update. The twenty (20) days starts on the day you gain access to the sprint.

Continuous practice in your area of study is crucial to your success at BloomTech and in your professional career. Extended periods of inactivity may preclude you from successfully progressing in the program. In such cases, it may be necessary to repeat earlier portions of the program and you may be subject to withdrawal.

## REPEAT CONTENT POLICY

Bloom Institute of Technology's competency based progression model allows students to repeat content that they have not yet demonstrated competency in. Learning at Bloom Institute of Technology follows a competency based progression model, and students may need to repeat portions of class to ensure students have the skills to succeed in their program and new field. That may mean extending the length of their program. If certain assessments are not passed, the student may repeat a portion of the program that covers the objectives they did not achieve. Students that are not demonstrating adequate effort or progress may be withdrawn from the program.

## CLASSROOM DAYS / HOURS

Bloom Institute of Technology provides distance education courses/programs where the distance education coursework is completed at a location determined by the student. BloomTech's school hours are from 6:00am - 8:00pm (Pacific).

Breaks and mealtimes are at the student's discretion.

### Full Stack Web Development, Data Science, & Enterprise Backend Development

We've designed our programs to support our students on their individual journey towards a new career. Students may finish the program sooner or later, depending on their personal pace and needs in the program. As a result, a student's actual completion date(s) may be sooner or later than listed in their enrollment agreement.

Students will spend time outside of lecture hours working on projects, studying, and coding. Although our flexible schedule is designed to fit into a student's life, a student must invest about 40 hours a sprint, including lecture hours.

Students have the option to choose their schedule during Labs, which may include live or recorded meetings, standups with their team, and more.

Breaks and mealtimes are at the student's discretion.

## ADMINISTRATION DAYS / HOURS

Administration Office hours are every first and third Tuesday of every month from 10:00am to 12:00pm and 1:00pm - 4:00pm (Pacific). Unless the day falls on a federal holiday or any holidays listed under "staff holidays". If you'd like to meet outside of these hours please contact compliance@bloomtech.com to make arrangements.

# ADMISSIONS ELIGIBILITY

To be eligible to apply and enroll at Bloom Institute of Technology, prospective students must:

- Be 18 years of age or older prior to the start date;
- Complete the admissions application and submit supplemental items
- Have a high school diploma or equivalent

# ADMISSIONS PROCEDURE

Prospective students are encouraged to explore our web resources to learn more about Bloom Institute of Technology courses and admissions at https://www.bloomtech.com/admissions

To apply:

- Submit an online application at https://admissions.bloomtech.com/
- Complete Orientation
- Submit proof of high school diploma or equivalent or complete
- Provide documentation of a minimum score of 80 on the TOEFL iBT examination if the student is not proficient in English.

Applicants will be notified of the admissions decision via email.

# ENROLLMENT PROCESSES

- A student's start is conditional upon the admitted applicant completing all required enrollment checklist items by their start date.
- Be provided with the institution's Course Catalog
- Receive, review, agree to, and sign the enrollment agreement
- Receive, review, and sign the School Performance Fact Sheet (SPFS).

# INTERNATIONAL STUDENTS AND ENGLISH LANGUAGE SERVICES

Bloom Institute of Technology does not offer visa services to prospective students from other countries or English language services. Bloom Institute of Technology does not offer English as a Second Language instruction. All instruction occurs in English. English language proficiency is documented by passing the Orientation Assessment.

While Bloom Institute of Technology does accept students from all around the world, the following factors must be carefully considered if you are not a US citizen:

- Income Share Agreements are available to people who live in the US who are US Citizens, US Permanent Residents, DACA recipients, and European Union Citizens living within the European Union. Other people can still attend Bloom Institute of Technology by paying the tuition upfront or arranging separate payment plan(s).
- Almost all courses are taught on Pacific Time so it is important to think about how you will adjust according to your time zone.

## NOTICE CONCERNING TRANSFERABILITY OF CREDITS AND CREDENTIALS EARNED AT OUR INSTITUTION

The transferability of credits you earn at Bloom Institute of Technology is at the complete discretion of an institution to which you may seek to transfer. Acceptance of the certificate or hours you earn in the educational program is also at the complete discretion of the institution to which you may seek to transfer. If the certificate or hours that you earn at this institution is not accepted at the institution to which you seek to transfer, you may be required to repeat some or all of your coursework at that institution. For this reason, you should make certain that your attendance at this institution will meet your educational goals. This may include contacting an institution to which you may seek to transfer after attending Bloom Institute of Technology to determine if your credits or certificate will transfer.

## TRANSFER OF CREDIT

Bloom Institute of Technology does not accept hours or credit through transfer of credit challenge examinations, achievement tests, or experiential learning.

## ARTICULATION AGREEMENTS

Bloom Institute of Technology has not entered into any transfer or articulation agreements with any other college or university.

## CANCELLATION AND REFUND POLICY

## THE STUDENT'S RIGHT TO CANCEL

If you withdraw or are withdrawn from BloomTech, the tuition proration policy will apply based on the effective date of your withdrawal. You have the right to cancel your Enrollment Agreement and obtain a refund through attendance at the first class session, or the seventh day after enrollment, whatever is later.

## HOW REFUNDS WORK

Within 30 days, amounts due to you, if any, will either be refunded directly to you if you prepaid. If any portion of the tuition was paid from the proceeds of a loan or by a third party, applicable refund shall be sent to the lender, third party or, if appropriate, to the state or federal agency that guaranteed or reinsured the loan.

If the student has received federal student financial aid funds, the student is entitled to a refund of monies not paid from federal student financial aid program funds.

## HOW TO WITHDRAW FROM THE PROGRAM AND CANCEL YOUR ENROLLMENT

A student can withdraw by submitting a "Withdraw" support ticket within the Portal or by sending an email to support@bloomtech.com. Withdrawals are effective the date and time of the ticket or emailed request.

## REFUND POLICY

For California residents, you will receive a prorated tuition amount if you have completed less than 60% of the program (<60%). Once you have completed 60% or more (≥60%) of the program you will not receive a refund. **If you withdraw prior to starting Sprint 2 you will owe no tuition and receive a full refund for any amounts paid to BloomTech.**

## TUITION PRORATION FOR TUITION OWED AFTER WITHDRAWAL

To find out your exact balance please submit a supporting ticket in the Portal. Your withdrawal time is defined as the official time you give notice of your withdrawal to BloomTech or the day BloomTech gives you notice of you being withdrawn.

If you withdraw or are withdrawn following the start of Sprint 2, we will calculate owed tuition by your program's hourly cost multiplied by the number of hours you earned. Hourly cost is determined by dividing your tuition by the number of credit hours in your program. Once you have completed 60% or more (≥60%) of the program you will owe the full tuition amount. Each sprint you complete is 40 hours.

The definition of a "sprint started" is as follows: A sprint starts when you submit and pass your final assignment/task in the prior sprint. At that time, you are automatically given access to the next sprint and are deemed to have started that next sprint. For example if you are a Data Science student and complete and pass your final assignment or task for sprint 1, you are given access to sprint 2, and have started Sprint 2.

## BLOOM INSTITUTE OF TECHNOLOGY 'S RIGHT TO WITHDRAW OR TERMINATE (DISMISSAL POLICY)

Bloom Institute of Technology can terminate a student's enrollment or withdraw them at any time for failure to comply with policies in the Catalog. Students may be Bloom Institute of Technology can terminate a student's enrollment or withdraw them at any time for failure to comply with policies in the Catalog. Students may be withdrawn for inactivity, failure to make required tuition payments on any plan, or any code of conduct violations. If a student is withdrawn from BloomTech, the tuition proration policy will apply based on when the student is withdrawn. Depending on the reason for withdrawal, the student may not be eligible for re-admission

## WITHDRAWAL

A student is deemed "withdrawn" from a BloomTech program when any of the following occurs:

- The student requests or initiates withdrawal.
- Bloom Institute of Technology withdraws the student for failure to comply with policies, including inactivity or code of conduct violations.
- Extended periods of inactivity without an approved Leave of Absence may subject you to withdrawal.

My official withdrawal date is (1) the date I give written notice of my withdrawal as required above; or (2) the date BloomTech gives me written notice that I am withdrawn. I understand the duration of a Sprint is 40 hours.

## READMISSION POLICY

If a withdrawn student wishes to return to finish the program, they may return as a readmitted student within 6 months of their withdrawal date and;

- The student has not been previously readmitted.
- The student was not withdrawn due to the expiration of the max program length policy or for violations of the student code of conduct.
- The student must return to their original track of study.
- The student will be placed into the last sprint passed prior to withdrawal and must complete the program before the student's expiration of the max program length policy.

Upon readmission, readmitted students will need to pay a partially Non-Refundable Readmissions Application fee of $500. Readmitted students will also be required to arrange the payment of their outstanding tuition balance prior to returning (full tuition amount less any amounts previously paid). If a readmitted student withdraws or is withdrawn from the program after being readmitted, they cannot be readmitted.

Readmitted students are not eligible to receive scholarships or tuition assistance grants.

## GRADING SYSTEM

Final course grades are based on demonstration of meeting the learning outcomes as stated on each course syllabus.

**P – Pass:** Any course with a "P" grade is identified as successful completion to graduate.

**F – Fail:** Any course with a "F" grade must be repeated and passed to graduate.

**R – Repeated:** When a course is repeated to improve a previously earned grade, the first grade is replaced with a new grade upon completion of the repeat. Any course that has a grade of "F"

(Fail) or "W" (Withdrawal) is required to be repeated. Any course with an "R" grade is not calculated into graduation requirements.

**W – Withdrawal:** Withdrawal, a "W" grade is provided when a student leaves the course or is withdrawn from the institution prior to the scheduled completion of a course. Any course with a "W" grade is not calculated into graduation requirements.

Incompletes - Bloom Institute of Technology does not give out incompletes.

A grading period is defined as one sprint: 40 hours. All grades are found in the learning management system.

Bloom Institute of Technology's response to, or evaluation of, each student lesson, project, or dissertation is returned to the student within 10 days after receipt.
Final course grades are based on demonstration of meeting the learning outcomes as stated on each course syllabus.

## SATISFACTORY PROGRESS

Bloom Institute of Technology's standards of satisfactory progress apply to all students. Students must pass the requirements for each sprint in order to progress to the next sprint. Satisfactory Progress means meeting the requirements to progress through all program sprints and satisfying the clocked hours for the student's program within the time specified in the Maximum Program Length policy.

## ACADEMIC PROBATION

If a student is inactive or not progressing at a rate aligned with their anticipated graduation date or maximum program length, BloomTech will reach out to the student to assist them in progressing or requesting withdrawal. Inactive students who are unresponsive to multiple outreach attempts will be withdrawn to avoid unintentional vesting of tuition. There are no probationary periods.

## ATTENDANCE

Attendance and participation in BloomTech courses is measured in multiple ways, including but not limited to taking attendance in live instruction experiences, verifying module & sprint project attempts, and activity in BloomTech's learning management systems, etc. While students may choose to attend live or view recorded sessions, attendance and engagement with the material is critical to success in the program. Students who fail to submit an assignment using the Learning Management System for more than seven (7) days or do not successfully complete a Sprint within 30 days will be marked as inactive, and BloomTech will reach out to verify enrollment. BloomTech may withdraw inactive students to protect them from unintentional further vesting of tuition.

Students who are unable to engage with the curriculum and make satisfactory progress due to extenuating circumstances may need to take a leave of absence.

# TARDINESS AND EARLY DEPARTURES

Students who arrive late or leave early to a live instruction session will be able to attend a session at a future date of their choosing, or to review recorded content through the learning management system.

# MAKE-UP WORK

Students that have missed a live lecture, assignment, project, or any other designed activity in the scheduled class time may make up for that work by doing so outside of scheduled class time.

# LEAVE OF ABSENCE POLICY

A leave of absence (LOA) will be considered and may be granted at the discretion of BloomTech staff provided:

1. The LOA does not exceed 60 calendar days
2. The LOA is requested by the student in writing prior to the first day of the LOA;
3. The LOA is approved in writing by the institution prior to the first day of the requested LOA; and
4. The student is in good standing prior to the LOA request.

# STUDENT CODE OF CONDUCT

## General Information

The Code of Conduct is set forth to give students general notice of academic and non-academic expectations. At the Bloom Institute of Technology, we are committed to the success of our students. That focus is what drives everything we do. Besides providing a clear framework, the policies and procedures in the Catalog are designed to mirror the expectations our students will see in a professional or workplace environment. Additionally, we want every student at BloomTech to have a positive learning environment - something we all play a role in.
The Code of Conduct should be read broadly and is not designed to define misconduct in exhaustive terms.

## Student Rights and Responsibilities

At the Bloom Institute of Technology, we value an educational environment that respects the values of individual students and their personal and professional development. We strive to create and maintain an environment in which individuals are treated with dignity, decency, and respect. We believe that is when the best learning happens. Each student is responsible for taking an active role in their learning and understanding to contribute to an environment where all can learn.

As agreed upon in enrollment, students are responsible for reading and understanding the expectations and guidelines of BloomTech as stated in the Enrollment Agreement and Catalog. If a student has questions about certain conduct, or whether an

expectation applies in BloomTech's programs and activities, and it is not explicitly stated, they should reach out to BloomTech Support via the Support Page or directly to support@blomtech.com, for clarification.

BloomTech protects student privacy. We do not provide personal information to non-service provider third parties, except as requested by the student, or as required by subpoena, warrant, or as otherwise directed or permitted by law.

## Scope and Application of the Code of Conduct

The Code of Conduct, along with all other published policies and procedures in the Catalog may be applied to behavior that is in-person, written, or conducted online. Alleged violations of the Code of Conduct that occur outside of a student's active enrollment at BloomTech (during admissions, leave of absence, or post-graduation) are also subject to investigation and possible withdrawal from the program.

Certain conduct may violate the Code of Conduct as well as the law. BloomTech reserves the right to investigate regardless of the prospect of or pending civil or criminal proceedings. BloomTech's process differs from legal proceedings in that the goal is to promote learning, growth, and to preserve the educational environment.

BloomTech may move forward to resolution before, simultaneously with, or following criminal or civil proceedings. Resolution of an alleged violation will not change on the grounds that a civil or criminal case has been resolved via dismissal, settlement, or reduction.

We encourage students to engage in curriculum-related discussions and ask for help through the Live Chat, the Support Page, and Support Tickets. While we do not want to discourage the gathering of BloomTech students outside of official channels we cannot, as a school, be held liable for anything that happens in the spaces that we do not govern. However, the school reserves the right to further investigation and possible removal of a student for offenses such as bullying, harassment, etc. if such behavior is brought to our attention.

Policies in the Catalog, including but not limited to the Code of Conduct, may be enforceable for incidents that happen outside of BloomTech that affect the BloomTech community (e.g. personal social media pages, Twitter, Facebook, or in-person meet ups). The following criteria will be used to determine if an incident that happens outside of BloomTech networks will be considered an alleged violation of the Code of Conduct:

1. When the incident was recognized by others as being carried out by a BloomTech student;

2. When the incident adversely impacted the mental, emotional, or physical health, safety, and/or security of BloomTech community members;
3. When the incident adversely impacted the mission and/or values of BloomTech; and/or
4. Whether the incident was a violation of federal or state laws or regulations, or local ordinances.

## Property and Resources

Students are responsible for maintaining the appropriate security of BloomTech property, both tangible, like computers and tech equipment, and intangible intellectual property such as curriculum and content. Unless otherwise agreed in writing, BloomTech property, in the student's possession or control, must be immediately returned to BloomTech upon any extended leave, withdrawal, completion, and/or termination.

Students may not take, attempt to take, keep in their possession, sell, or attempt to sell property (intellectual or physical), information, services, or accounts belonging to BloomTech or other individual(s). This includes, but is not limited to, loaned equipment. Students also may not commit actual or attempted damage or destruction of any property or item, including intellectual or physical property, information, and/or accounts.

## Professionalism & Academic Integrity

The goal of BloomTech is to prepare students for entry-level employment in technology fields including web development, software engineering, enterprise backend development, and data science. To that end, BloomTech students are expected to maintain a high standard of academic integrity and professionally conduct themselves from enrollment through graduation and job search.

## Professionalism

Professionalism should be a theme that runs through a student's work and interactions at BloomTech. To foster a professional environment students must:

- Maintain a positive and respectful attitude toward their fellow students and BloomTech staff.
- Use a respectful tone in all communication, whether written or verbal. This includes communication via Slack, the Portal, Zoom, the content of a student's work, naming conventions, email, text message and all other forms of communication.
- Be punctual to all live sessions and accountable for one's attendance by completing all required pre-work. If you are not able to attend, you are

responsible for communicating with BloomTech staff, if at all possible, prior to your absence.
- Maintain open communication with staff and fellow students. Students have the responsibility to remain in communication with BloomTech administration, by checking their email, text messages, reading and engaging in Slack channels, Slack direct messages, and reading all school announcements daily.
- Best practices are: if a student wouldn't do or say it in front of an employer or colleagues at their job, they shouldn't do it here at BloomTech.

## Academic Integrity

BloomTech strives to create an environment that respects the values of individual students and their intellectual, cultural, and social development. It is expected that students maintain a high standard of academic integrity by presenting work truthfully and being committed to upholding honesty and truth in all academic activities. For our purposes, breaches of academic integrity include, but are not limited to the following:

- **Plagiarism and Cheating:** Students are expected to submit code and content that reflects their own work, thoughts, ideas, or expression. Plagiarism is a form of academic dishonesty that includes the wrongful appropriation, either intentionally or unintentionally, of another's work, thoughts, ideas, or expression. Plagiarism can include copying code or content from instructors, other students, outside sources, or generally submitting work that is not one's own.
- **Sharing Solution Code:** Students are expected to submit code and content that they wrote and/or created as their own work product. Giving your solution code to another student to copy, or copying another student's work, is considered cheating. Any unauthorized sharing of project solution code outside of the BloomTech community is considered theft. BloomTech projects and curriculum are the property of BloomTech.
- **Inappropriate Use of Intellectual:** Property and Copyright Violations: We expect all students to respect the intellectual property rights of BloomTech, instructors, staff, and other students, as well as those of any external parties. BloomTech owns all code for BloomTech assigned projects. Students own any code that they write for projects outside of the core BloomTech curriculum, even if these projects were written during their enrollment in BloomTech. Intellectual property violations include copyright violations, using, and/or linking materials to which you do not have the rights. BloomTech may request that you remove any content or material (either within Slack, The Portal, or externally) that is found to violate any Catalog policy, contractual term, law, and/or any intellectual property right. Content posted to BloomTech Slack spaces also belongs to BloomTech.

For any project you are submitting, you should be able to set research tools and notes aside and write your own code. In investigating suspected academic integrity violations, BloomTech staff may use the following questions to evaluate the situation:

1. Who created the original code and/or content?
2. For what purpose was that code and/or content created?
3. To what extent was the original code and/or content changed?

## Respect & Inclusion

BloomTech strives to build and maintain a strong, supportive, positive learning environment that leads to successful career outcomes for all BloomTech students. Students are expected to refrain from any activity (creating distractions, bullying, harassment, etc.) that negatively impacts the learning environment. This may result in being removed from the program.

**Respect:** BloomTech is an equal opportunity organization that does not discriminate based on actual or perceived race, creed, color, religion, national origin, ancestry, age, physical or mental disability, pregnancy, genetic information, sex, sexual orientation, gender identity, or expression, marital status, familial status, domestic violence victim status, veteran or military status, or any other legally recognized protected basis under federal, state or local laws.

BloomTech is fortunate to have students, instructors, and staff from extremely diverse backgrounds. It is expected that students will actively contribute to fostering a positive and inclusive experience for all, by demonstrating respect and a welcoming attitude within the BloomTech community.

**Inclusion:** At BloomTech, we strive to create an educational environment characterized by empathy by treating each individual with dignity, decency, and respect. Harassment that is unwelcome, sufficiently severe, persistent, or pervasive, causes reasonable fear for safety, and/or interferes with employment, education, or participation in BloomTech's programs, activities, or resources is strictly prohibited.

The BloomTech community is expected to actively seek to cultivate a culture where everyone feels safe, included, and free to thrive. Students are expected to foster an environment of understanding, positivity, and shared success at BloomTech. Our commitment extends to preventing and rectifying any form of unlawful discrimination against and harassment of our valued students, instructors, and staff.

## Discrimination

BloomTech students are expected to actively combat discrimination and contribute to a community where everyone feels valued, respected, and supported. By upholding these principles, we strive to ensure that each member of the BloomTech community can thrive and contribute to a positive and enriching educational experience.

Discrimination, as outlined in this policy, refers to conduct targeted at an individual or group based on characteristics such as race, color, national origin, ethnicity, sexual orientation, gender identity, religion, gender, marital status, age, disability status, or genetic information. Discriminatory behavior results in any treatment that negatively impacts the individual's or group's employment or educational experience at BloomTech.

## Harassment

At BloomTech, students are expected to take an active role in preventing and refraining from harassment to create a positive and respectful educational community. Together, we actively work towards a community free from harassment, ensuring the well-being and success of all BloomTech students.

Harassment is defined as conduct directed at an individual or group of individuals because of their race, color, national origin, ethnicity, sexual orientation, gender identity, religion, gender, marital status, age, disability status, or genetic information that has the purpose or effect of unreasonably interfering with an individual or group of individuals' employment or educational experience or creating an intimidating, hostile, or offensive environment.

Harassment includes any verbal, physical, or online conduct and includes, but is not limited to: slurs, epithets, or other threatening, intimidating, hostile, or abusive treatment directed at an individual or group of individuals based on the protected statuses described above.
To constitute a hostile environment, the harassment must be sufficiently severe, persistent, or pervasive enough to create an environment that a reasonable person would find intimidating, hostile, or abusive. A single incident may create a hostile environment if it is sufficiently severe. Additionally, while a single incident may not be classified as creating a hostile environment, the incident will be addressed so it is not repeated.

## Threatened or Actual Physical or Psychological Harm

Students are expected to actively contribute to a safe and supportive environment at BloomTech by reporting any threatened or actual physical or psychological harm. This includes being vigilant against intimidating behavior, promptly informing staff when

they witness or are a victim of threatening behavior, and fostering a culture of empathy and respect within the community.
As a community, BloomTech prohibits the following:

- Behavior that is threatening and/or intimidating, or harassing in nature and expresses or implies interference with personal safety, education, employment, or participation in BloomTech's activities, resources, or that causes the person(s) to have a reasonable fear that such behavior is about to occur.
- Stalking, both physical and online. Includes, but is not limited to behavior that threatens or endangers the physical or psychological safety of a person(s), or creates a reasonable fear or intimidation of such a threat or action.
- Doxxing, which is, uncovering and/or sharing a person's private or confidential information, often for the purpose of intimidation.
- Any act or series of acts of physical, social, or emotional domination or intimidation, commonly referred to as "bullying" that causes fear of or physical or psychological harm and/or interferes with employment, education, or ability to participate in or benefit from BloomTech programs, activities, or resources.

## Community & Collaboration

BloomTech's vibrant community, comprising students, alumni, instructors, and staff, engages through diverse online platforms such as Zoom, Slack, the BloomTech Portal, Canvas, LinkedIn, live sessions, and in-person. It is expected that students actively contribute to fostering a positive and inclusive experience for all by demonstrating respect and a welcoming attitude within the BloomTech community.

### Community

At BloomTech, we celebrate the power of our collective effort and shared experiences, which deeply enrich the sense of community. This communal spirit goes beyond enhancing the educational journey; it actively contributes to the overall growth and success of each community member.

In alignment with this commitment to a positive and supportive community, students must adhere to local laws and regulations regarding alcohol, drug, weapon use and possession. Violations within BloomTech programs include consuming these substances during school hours, using drug paraphernalia, displaying disorderly behavior due to substance use, and exhibiting signs of intoxication. Regardless of local regulations, they are expected to refrain from wielding, displaying, or using weapons or weapon paraphernalia. This includes firearms, explosives, knives, martial arts weapons, and other objects designed to cause harm, as well as items that could be mistaken for weapons or explosives.

Concerns about others should be reported to BloomTech Support via the the Support Page or directly to support@blomtech.com.

We view Zoom as a valuable tool for attending live sessions, engaging projects, and participating in meetings. We urge students to create a conducive environment where they can concentrate effectively, prioritizing both their well-being and that of others. This positive approach ensures that each member of the BloomTech community can fully benefit from the educational opportunities while maintaining a secure and supportive virtual space.

While the following expectations described here are primarily for Zoom interactions, they may apply elsewhere in the program.

- Food: Eating should be kept to a minimum while on camera and should not distract or disrupt others.
- Smoking/Smokeless Tobacco: Smoking of any kind (cigarette, vaping, e-cigarette, etc.) is not permitted while on camera. This also includes chewing tobacco.
- Clothing: It is expected that students are fully clothed while on camera and that their clothing does not contain any obscene, offensive, or derogatory messages or images.
- Driving: We advocate against participating in dangerous or physical activities while on Zoom, including but not limited to driving.

BloomTech values and respects student, staff, and instructor privacy. It is expected that all students will respect this privacy as well. Therefore, students should refrain from the following activities:

- Use electronic or other devices to make an audio, photographic, screenshot, or video record of a person(s) without prior knowledge or permission in each instance.
- Store, share, or distribute such records by any means, including the unauthorized recording of personal conversations, images, meetings, or activities.
- Create, store, share, or distribute created likeness of any person(s) without prior knowledge or permission. This includes, but is not limited to, emojis, gifs, and memes.
- Please note that screenshots may be taken and used for the purpose of reporting behavioral concerns to BloomTech staff. These should be submitted through a support ticket in The Portal, and not shared in Slack channels. Additionally, taking screenshots and sharing snippets of code or class material for the purpose of soliciting help or assistance in understanding a concept is permitted.

### Collaboration

BloomTech provides opportunities for students to collaborate during live sessions and within designated Slack community channels. Professionalism is expected from all students when participating in academic and social discussions, posts, comments, asking questions, and responses to others. Students are able to engage with their fellow students using designated Slack channels. Students are expected to conduct themselves in the following manner:

- Be respectful toward others (students, staff, instructors, and the school) in all communications
- Follow the directions of staff or instructors
- Communicate with your fellow students in a constructive and supportive manner
- Maintain an environment that is academically focused
- Uphold the intended purpose of each channel to maintain the integrity and effectiveness of our community interactions
- Use communication channels responsibly, steering clear of any solicitation or marketing for personal business or gain
- Refrain from spamming your fellow students, staff, or instructors
- Any critical feedback should be provided to BloomTech Support via the Support Page or directly to support@blomtech.com.

Students are expected to add a profile picture to their BloomTech associated accounts. This picture must be a professional picture of the student's face. The picture may not be a caricature, drawing, or cartoon image of the student's likeness. It is not acceptable to have any other image for a profile picture on platforms used for BloomTech.

BloomTech reserves the right to delete Slack channels and content (posts, images, emojis, threads, questions, comments, and responses) that are not aligned with our mission, values, or Code of Conduct.

## Academic Support/Advising & Reporting

### Academic/Advising Support

If a student feels lost or is stuck on an assignment, it is their responsibility to reach out to the BloomTech community for help. Students should not expect to be given the answer, but they will be provided with the tools to reach the answer on their own. Students should use the following steps, in order, when they need help with technical problems/challenges and coursework:

- **Follow the 20-Minute Rule:** Students are encouraged to work independently on new problems for the first 20 minutes to build resiliency and gain competency in the topics.
- **LearnBot:** Our LearnBot is an AI-powered assistant designed to enhance your learning experience. It's here to provide real-time guidance, answer your questions, and help you navigate through the course material effectively. LearnBot lives at the top-right corner of your course, in Canvas.
- **Live Chat:** Our Learner Assistants are standing by to provide academic support throughout the day. Navigate to the Portal, Course, and the Support Page during posted support hours.
- **Support Ticket:** In the the Support Page or via Live Chat outside of support hours, students are encouraged to create support tickets for any academic or non-academic issues. If access to these tools cannot be obtained, a support ticket can be created by emailing support@bloomtech.com.

### Reporting

BloomTech does not proactively seek out violations of the Code of Conduct. However, should an issue come to the School's attention or be reported BloomTech staff will diligently investigate to ascertain whether the behavior constitutes a violation of the Code of Conduct through the Grievance (Complaint) Procedure, above.

BloomTech has both the right and responsibility to maintain a professional, respectful, and learning-centered environment. Although we welcome feedback and ideas, as a private institution, we may remove content that violates the Code of Conduct, is deemed to be disruptive to the learning environment, and/or is not aligned with BloomTech's mission, values, and/or goals.

## Retaliation

BloomTech prohibits retaliation against any person, who, in good-faith participates in the reporting, investigation, or resolution of any alleged violation of the Catalog, Code of Conduct, or other published policies. Retaliation can be physical, verbal, via a third party, or using electronic means, and may include, but is not limited to: harassment, intimidation, threats, or adverse actions against a student, staff member, instructor, or other BloomTech community member. Retaliation may result in immediate removal from the school.

## Feedback

BloomTech encourages critical thought, discourse, and feedback from our students, including reflections on the school itself, our policies, or anything else. We value

student feedback and welcome it anytime via a support ticket in The Portal or communication with staff and instructors. Please note, that while students may choose to talk to a staff member or instructor, support tickets in The Portal are the official means of communication regarding feedback or concerns.

## GRADUATION REQUIREMENTS

Students must pass the requirements for each sprint in order to progress to the next sprint. Students are considered a "graduate" once they have received a passing grade for every sprint in their program. Students must complete these requirements and satisfy the hours for their program within the maximum time allotted for program completion (960 hours for Web & DS and 1440 for Backend).

Students that meet these requirements will be issued a Certificate of Completion from Bloom Institute of Technology for program completion within 60 days of graduation. A test-out process is available for students who qualify. Students should submit a Support Ticket to inquire about testing out or to initiate the process.

# STUDENT SERVICES

## HOUSING

Bloom Institute of Technology's programs are all 100% online. Bloom Institute of Technology does not assume responsibility for student housing, does not have dormitory facilities under its control, nor offers student housing assistance.

According to rentals.com for San Francisco, CA rental properties can start at about $2,000 per month.

## LEARNING RESOURCES

Bloom Institute of Technology provides all instructional materials necessary for the program. Bloom Institute of Technology does not maintain a library. Students may access the internet for additional resources. Internet resources are available 24 hours a day and accessible with an internet connection.

## CURRICULUM ACCESS

While enrolled in Bloom Institute of Technology, you may have access to past and/or current materials and resources (such as curriculum and projects) for the program you completed. You may use these materials for your continued self-study, to brush up on a new skill, or prepare for an interview or project.

Access to BloomTech materials is for your personal use only and may not be shared or distributed to a third party. This includes, but is not limited to alumni or students from programs other than your own, individuals/companies/groups not affiliated with

BloomTech, repurposing or editing materials and claiming them as your own, or publishing materials or curriculum in any form on any platform.

BloomTech reserves the right to remove, alter, and/or discontinue access to this material at any time.

## ACCESSIBILITY AND ACCOMMODATIONS

Bloom Institute of Technology welcomes and embraces diversity and is committed to providing otherwise qualified students equal access to programs and activities by having nondiscriminatory standards in all academic areas and reasonable accommodations. A reasonable accommodation is an adjustment or minor change that removes barriers. Reasonable accommodations do not involve lowering academic standards or alterations to a program. Please note that accommodations that were approved through another school or institution may not be approved at BloomTech due to the nature of the educational format of our programs and activities. Reasonable accommodations are evaluated and granted on an individualized basis. To begin the process of requesting accommodations, students should send an email to accommodations@bloomtech.com.

## LIBRARY

Bloom Institute of Technology is a 100% online institution with no physical locations for students to learn from or meet. Bloom Institute of Technology does not have a traditional library due to their online presence and the subject matter taught.

Bloom Institute of Technology's "library" is online and housed on the platform called Canvas. Within Canvas students have access to videos, assignments, daily syllabi, and resources Bloom Institute of Technology has created for students who need extra help.

## ZOOM

Zoom is an online remote meeting service. While at Bloom Institute of Technology students will use Zoom to receive lectures, guided projects, pair program, work on group projects, receive 1:1 support from the Instruction team, and more.

Each student will be required to download Zoom and set up their free account before engaging in any live instruction experiences.

## THE PORTAL

The Portal is a resource and communication tool at BloomTech, and contains the following:

- Announcements to all or part of the student body
- Discussion Forums where students and staff can ask questions and engage with course material

- Knowledge Base of articles and frequently asked questions, covering school policies and information as well as curricular content and supplemental resources
- Support Ticket function, for general inquiries as well as requesting instructional or technical support

## SLACK OR OTHER FORUMS

Slack is an online communication tool used widely in the tech industry.. If a student has never used Slack before, they should get to know it well. Nearly every company in Silicon Valley uses it, and it's rapidly becoming a point of competence across software engineering teams.

Once a student has finalized their enrollment, we will add them to the student Slack workspace.

Typing a message in Slack that includes "@here" or "@channel" notifies everyone in that channel. This sends an alert to their desktop, or, in many cases, their personal cell phones. As such, these commands are reserved for instructors and BloomTech staff.

## STUDENT RECORDS

Student records will be maintained electronically for five years from the last date of attendance. Transcripts are maintained permanently and available upon request via email to ticket in The Portal.

## EMPLOYMENT ASSISTANCE

Bloom Institute of Technology graduates work to produce career materials, prepare for interviews, and understand how to optimize the job search. Bloom Institute of Technology shares job opportunities for graduates to apply to and provides direct introductions to partner companies where appropriate.

## NO GUARANTEE OF EMPLOYMENT

While Bloom Institute of Technology will assist graduates in developing job search skills such as resume and cover letter development, interviewing, and appropriate interview follow-up activities, it cannot and does not guarantee the student will find employment nor does it guarantee the student will realize a given salary following graduation.

## GRIEVANCE PROCEDURE

If a concern occurs, the student is asked to discuss the matter with a BloomTech staff member. Students may raise the concern with any member of the team by submitting a support ticket through The Portal. If a resolution cannot be reached, students are asked to document their concern.

Documentation should include:

- Relevant dates
- A description of the original concern

- A summary of past conversations with BloomTech staff
- Desired outcome or resolution

The student should send the documentation via Portal support ticket. After the documentation has been reviewed, the student can expect a response within ten (10) business days following receipt of the documentation.

A student or any member of the public may file a complaint about this institution with the Bureau for Private Postsecondary Education by calling 888.370.7589 toll-free or by completing a complaint form, which can be obtained on the bureau's Internet Web site, www.bppe.ca.gov.

## CATALOG CHANGES

Information about Bloom Institute of Technology is published in this catalog, which contains a description of policies, procedures, and other information about the institution. Bloom Institute of Technology reserves the right to change any provision of the catalog at any time. Notice of changes will be communicated in a revised catalog, an addendum or supplement to the catalog, or other written format with an effective date. Students are expected to read and be familiar with the information contained in the catalog, in any revisions, supplements and addenda to the catalog, and with all institution policies. By enrolling in Bloom Institute of Technology, the student agrees to abide by the terms stated in the catalog and all institution policies.

## ARTIFICIAL INTELLIGENCE

Certain portions of the tools and education services provided by BloomTech are created with the aid of artificial intelligence software. All such tools and services are tested and/or verified by a human prior to use. **BloomTech's curriculum is 100% human designed.**

## PROGRAMS

The programs herein are not described in sequential order. Additionally, units and sprint order may be subject to change. For the exact order in which you will receive your program, please review our website.

### FULL STACK WEB DEVELOPMENT

**Required Program Length:** 960 hours / 24 Sprints

**Cumulative Final Exam:** None
**Graduation Document:** Certificate Of Completion
**Standard Occupational Codes / Potential Employment Titles: 15-1254**
**Sample of reported job titles:** Web Developer, Programmer, Software Engineer, Technology Applications Engineer, Web Development Director, Web Development Instructor, Webmaster

**Program Description:**
This program teaches the foundations of web development and computer science. Students will learn full-stack development with some of the most in-demand technologies. Upon successful completion of the program, students will have built and worked on multiple apps. This course of instruction prepares individuals for entry-level jobs such as: web developer, front-end developer, backend developer, and full-stack developer. Graduates may find suitable employment with technology companies, as well as traditional companies with the need for web applications and websites.

**Program Objectives:**
Upon successful completion of this program the student should be able to:

1. Develop Web application front ends using HTML, CSS, and JavaScript
2. Develop Web servers using Node.js and RDBMS such as SQLite and PostgreSQL
3. Understand, explain, and apply fundamental computer science concepts

**Program Outline:**

| Full Stack Web Development Core | Course Title | Lecture | Lab |
|---|---|---|---|
| | JavaScript and HTML I | 10 | 30 |
| | JavaScript and HTML II | 10 | 30 |
| | JavaScript and HTML III | 10 | 30 |
| | Applied Computer Science 1 | 10 | 30 |
| | Applied JavaScript | 10 | 30 |
| | Intro to React | 10 | 30 |
| | Single Page Applications | 10 | 30 |
| | Applied Computer Science 2 | 10 | 30 |
| | Advanced React | 10 | 30 |
| | Advanced State Management | 10 | 30 |
| | Advanced Web Applications | 10 | 30 |
| | Applied Computer Science 3 | 10 | 30 |
| | Build a Web API | 10 | 30 |
| | Adding Data Persistence | 10 | 30 |
| | Authentication and Testing | 10 | 30 |
| | Applied Computer Science 4 | 10 | 30 |
| | **Total Core Hour:** | **160** | **480** |

| Applied Computer Science | Course Title | Lecture | Lab |
|---|---|---|---|
| | Applied Computer Science 5 - 8 | 40 | 120 |

| | | |
|---|---|---|
| **Total ACS Hours** | **40** | **120** |

| Bloom Institute of Technology Labs | Course Title | Lecture | Lab |
|---|---|---|---|
| | Bloom Institute of Technology Labs 1 - 4 | 20 | 140 |
| | **Total Labs Hours** | **20** | **140** |
| | | **Total Program Hours** | **960** |

# COURSE DESCRIPTIONS

## Full Stack Web Development Core

**JavaScript and HTML I** **40 Hours**

Everything we teach during the first couple months of your experience here at Bloom Institute of Technology revolves around software engineering for the web. One of the most powerful web languages is JavaScript. Without it, there is no modern web. Web browsers use JavaScript to power rich user experiences we have all come to expect.

Bloom Institute of Technology looks at JavaScript through this analogy. Think of a web page as a house. You need someone to architect and get in the structure of your house, someone to add in the design, and someone to add in the electricity to power the house. If you were to think about HTML, CSS and JavaScript as the three necessary building blocks, for a web page, HTML could be the blueprint of what your house should be, CSS is the design of your house and JavaScript powers the electrical interactions that your house needs to have in order to be functional.

JavaScript is everywhere today! And we have the opportunity here to dive deep enough into the language to teach you how to be proficient in building modern, complex and beautiful web applications that are used to power the web today!

**JavaScript and HTML II** **40 Hours**

In this comprehensive sprint, you will develop essential skills for professional web developers. You will be introduced to git and GitHub for effective version control and team collaboration. The course delves into JavaScript, covering objects, arrays, and data manipulation techniques for dynamic web applications. Lastly, you will enhance your HTML and CSS proficiency, learning to create visually captivating and user-friendly websites by refining layout, colors, and typography. This well-rounded course will equip you with the tools to excel in modern web development.

**JavaScript and HTML III** **40 Hours**

In this engaging sprint, we will continue guiding you through the fascinating world of JavaScript, diving deeper into the nuances of objects, functions, and the visually appealing aspects of CSS. We will explore advanced objects and functions in JavaScript,

ensuring you understand how to harness their full potential. You'll also learn about elegant solutions to less-common coding problems, discovering how developers have tackled these challenges over the years. Finally, we'll enhance your HTML and CSS expertise by covering flexbox layouts and CSS specificity, equipping you with the skills needed to create captivating and interactive web experiences.

**Applied Computer Science 1** **40 Hours**
Explore programming and problem solving skills that will prepare you to pass a technical exam and start working on your job search by completing career readiness activities.

**Applied JavaScript** **40 Hours**
This week is all about exposing you to applying your Javascript knowledge to the Document Object Model and creating rich Javascript user interfaces.

**Intro to React** **40 Hours**
React is one of the most popular UI libraries today, and in terms of Single Page Applications many (including the react team) tend to think of the library as the “V” in MVC. That is, the View layer of the Model, View, Controller paradigm. React is a pattern, a mindset, that will help developers that use it, build small, reusable pieces of UI that can be easily put together to make a large scale application.

**Single Page Applications** **40 Hours**
This week we’ll be learning about using React Router. With the UI Library (React) and the Client Side Routing Library (React Router) you’ll be able to craft rich, robust and highly scale-able Single Page Applications. We will also learn about controlling forms with React, and take our first look at what automated testing is.

**Applied Computer Science 2** **40 Hours**
Explore programming and problem solving skills that will prepare you to pass a technical exam and start working on your job search by completing career readiness activities.

**Advanced React** **40 Hours**
We continue our journey into React with some more advanced topics like class components, custom hooks, and testing.

**Advanced State Management** **40 Hours**
Welcome to the extensive world of state management in React. In this sprint we'll get hands-on experience with Context API, Redux and more!

**Advanced Web Applications** **40 Hours**
Here you'll learn important authentication techniques and automated deployment tools. Additionally, you will learn the skills necessary to automatically test the sophisticated applications you've been building.

**Applied Computer Science 3** **40 Hours**

Explore programming and problem solving skills that will prepare you to pass a technical exam and start working on your job search by completing career readiness activities.

**Build a Web API** **40 Hours**

In this sprint you will learn about Node.js, a runtime environment used to execute JavaScript code outside the browser. You will also learn how to use the popular Express framework to build Web APIs based on the REST (Representational State Transfer) architectural style.

At the end of this sprint you will be able to build and deploy high performance RESTful Web APIs that can power all apps of all kinds: Internet of Things, Mobile and Web Applications.

**Adding Data Persistence** **40 Hours**

Learn how to store and manage information using Relational Databases like SQLite and PostgreSQL. You will learn to manage the data stored in Relational Databases using JavaScript and Structured Query Language (SQL).

At the end of this sprint you will know how to design and build a Relational Database that satisfies user's requirements and add it to a Web API

**Authentication and Testing** **40 Hours**

For this sprint you will learn how to secure the information managed by a Web API. You will learn how to use Sessions, Cookies and JSON Web Tokens (JWTs) to add Register, Login and Logout functionality.

**Applied Computer Science 4** **40 Hours**

Explore programming and problem solving skills that will prepare you to pass a technical exam and start working on your job search by completing career readiness activities.

## Applied Computer Science

*Prerequisite: Successful completion of all courses within Development Core*

**Applied Computer Science 5 - 8** **160 Hours**

Students will continue to build upon problem solving skills that will help improve their ability to solve coding challenges and attain higher scores on a technical exam. In addition, students will receive personalized feedback on their career artifacts, opportunity to practice technical interviewing skills and attend information sessions offered by hiring partners.

## Bloom Institute of Technology Labs

*Prerequisite: Successful completion of all courses within Development Core*

**BloomTech Labs: Labs 1 - 4** **160 Hours**

Bloom Institute of Technology offers students a professional immersive experience during Labs. They gain valuable experiential practice that solidifies their core skill learnings. They learn how to operate in an agile environment and follow a standard development process.

## DATA SCIENCE

**Required Program Length:** 960 hours / 24 Sprints

**Cumulative Final Exam:** None
**Graduation Document:** Certificate Of Completion
**Standard Occupational Codes / Potential Employment Titles: 15-1221**
**Sample of reported job titles:** Data Scientist, Data Analyst, Business Intelligence Analyst, Machine Learning Engineer, Data Engineer, Software Engineer

**Program Description:**
In this program students learn industry-current tools and techniques for data science, adopting best practices in the Python ecosystem. This program will take the student from a solid foundation to employing advanced statistical models. This course of instruction prepares individuals for entry-level jobs such as data analyst and machine learning engineer. Graduates may find suitable employment with technology companies as well as traditional companies looking to take better advantage of their existing data.

**Program Objectives:**
Upon successful completion of this program the student should be able to:
1. Analyze data of a variety of types
2. Build reproducible analyses and data-powered systems
3. Be able to glean, communicate, and build on insights from data

**Program Outline:**

| Data Science Core | Course Title | Lecture | Lab |
|---|---|---|---|
| | Data Wrangling and Storytelling | 10 | 30 |
| | Statistical Tests and Experiments | 10 | 30 |
| | Linear Algebra | 10 | 30 |
| | Applied Computer Science 1 | 10 | 30 |
| | Linear Models | 10 | 30 |
| | Kaggle Challenge | 10 | 30 |
| | Applied Modeling | 10 | 30 |
| | Applied Computer Science 2 | 10 | 30 |
| | Software Engineering and Reproducible Research | 10 | 30 |

| | | | |
|---|---|---|---|
| | SQL and Databases | 10 | 30 |
| | Productization and Cloud | 10 | 30 |
| | Applied Computer Science 3 | 10 | 30 |
| | Natural Language Processing | 10 | 30 |
| | Neural Network Foundations | 10 | 30 |
| | Major Neural Network Architectures | 10 | 30 |
| | Applied Computer Science 4 | 10 | 30 |
| | **Total Core Hours** | **160** | **480** |

| Applied Computer Science | Course Title | Lecture | Lab |
|---|---|---|---|
| | Applied Computer Science 5 - 8 | 40 | 120 |
| | **Total ACS Hours** | **40** | **120** |

| Bloom Institute of Technology Labs | Course Title | Lecture | Lab |
|---|---|---|---|
| | Bloom Institute of Technology Labs 1 - 4 | 20 | 140 |
| | **Total Labs Hours** | **20** | **140** |
| | | **Total Program Hours** | **960** |

# COURSE DESCRIPTIONS

## Data Science Core Courses

**Data Wrangling and Storytelling** **40 Hours**

Loading data is a fundamental, and deceptively challenging, step. Getting it in the right "shape" and format for analysis and modeling is always a challenge. This week we'll practice these skills, and learn to appreciate the many tools Python gives us for these tasks.

**Statistical Tests and Experiments** **40 Hours**

An important application of statistics is designing and evaluating experiments. In the context of web applications, often this means an A/B test where users are exposed to different versions of a site and their behavior/outcomes compared.

How do you design a good, and valid, experiment? How long should you run your experiment? How do you evaluate the outcome of an experiment? How do you balance all this math and science with the practical business and product concerns you're working with? These are the sorts of questions we'll discuss in this sprint.

**Linear Algebra** **40 Hours**

Linear Algebra is the foundation of nearly all the numerical routines used for practical statistics and machine learning. It's a deep topic, but this week we'll learn enough to appreciate how it is used and applied to the many models we'll learn.

**Applied Computer Science 1** **40 Hours**

Explore programming and problem solving skills that will prepare you to pass a technical exam and start working on your job search by completing career readiness activities.

**Linear Models** **40 Hours**

Unit 2 is about Predictive Modeling, also known as supervised machine learning with labeled, tabular data! We can make models to predict continuous numbers, and answer questions like "How much?" or "How many?" This modeling task is called regression. We'll begin our study of predictive modeling with linear models for regression tasks: ordinary least squares regression, and ridge regression. We can also make models to predict discrete classes, and answer questions like "Is this A or B or C?" This modeling task is called classification. We'll continue our study of predictive modeling with a linear model for classification tasks, called logistic regression.

**Kaggle Challenge** **40 Hours**

We'll continue our study of predictive modeling with tree-based models, such as decision trees and random forests. We'll also learn how to clean data with outliers, impute missing values, encode categoricals, and engineer new features. This sprint, your project is about water pumps in Tanzania. Can you predict which water pumps are faulty?

**Applied Modeling** **40 Hours**

For your portfolio project, you will choose your own labeled, tabular dataset, train a predictive model, and publish a web app or blog post with visualizations to explain your model. You will use your chosen dataset for all assignments during the Applied Modeling sprint. You'll learn how to define machine learning problems, begin the modeling process, choose targets, choose evaluation metrics, and avoid leakage. You'll improve your model predictions with powerful models like gradient boosting and feature selection techniques like hyperparameter optimization. You'll improve your model interpretation with insightful visualizations like partial dependence plots and shapley value force plots. Applying predictive modeling to real decisions isn't easy, but these are the skills employers are looking for!

**Applied Computer Science 2** **40 Hours**

Explore programming and problem solving skills that will prepare you to pass a technical exam and start working on your job search by completing career readiness activities

**Software Engineering and Reproducible Research** **40 Hours**

"A data scientist knows more about statistics than a software engineer, and more about programming than a statistician."

Being a data scientist means applying statistics and analysis of data, writing real working code that runs and gets results. You've been doing that your entire time at Bloom Institute of Technology , but much of our work has been in the land of Python notebooks, a useful but limited environment intended for exploration, not engineering.

Some place a divide between science and engineering – theory and practice, ideas and application. A skilled data scientist masters both: science informs engineering, and engineering increases the rigor of science by making it reproducible and scalable.

In this unit we will build the core skills needed to communicate and work with software engineers. You may have pleasantly surprised colleagues if you not only know the latest and greatest machine learning model but build and approach it with software development best practices.

To do this, we will go beyond Python notebooks, into the world of modules, packages, containers, and more.

**SQL and Databases** **40 Hours**

What does "data" look like? If you try to picture it, you probably see rows and columns on a spreadsheet or CSV, that can be conveniently loaded with pandas and cleaned and analyzed from there. As a data scientist, this will often be the form you want your data to be in, but it's probably not how your data started.

Most modern data is generated automatically by human interaction with a web-backed application – every app they download, every click they make, all travels over a network and is saved by the server. Though in the rawest of forms this may be a log file, in most cases where it really goes is a database.

So, what is a database? A place for data! If it's relational, it's actually still pretty close to that rows and columns picture, though with some important additional functionality. These databases are commonly accessed using SQL – Structured Query Language – a standard based on relational algebra, and a useful tool known not just by data scientists but by software engineers, MBAs, and more.

If it's so-called "NoSQL," then it's most likely a document-oriented database (or document store), which, despite the glamor, is essentially a bunch of key-value pairs. What key-value pair object are you already familiar with? Python dicts!

In this sprint we will learn about both of the above paradigms, and how the separation between them is not as fine a line as you may think.

**Productization and Cloud** **40 Hours**

For a computer program to be "real", it has to be available – these days, that means deployed to the cloud. But what is the cloud, and what does it mean to build and deploy something to it? We'll learn that and more in this sprint.

**Applied Computer Science 3** **40 Hours**

Explore programming and problem solving skills that will prepare you to pass a technical exam and start working on your job search by completing career readiness activities

**Natural Language Processing** **40 Hours**

A particularly common set of unstructured data is the sort of information you are consuming right now – natural language, in written or spoken form.

Human language is a fascinating phenomenon and powerful expressive tool, but despite the many rules of grammar language is not a fully defined deterministic system in the same way that programming languages (like Python) are. Language can be thought of as semi-structured, but even the structure it has (nouns, adjectives, verbs, etc.) can be difficult to recognize. Most humans are fluent in one or more languages, but even that fluency doesn't mean they can explicitly list or consciously understand the "rules" they are following.

Nonetheless, human language is the main form of content on the Internet (and beyond), and the ability to computationally process it at scale can lead to many compelling products. A brand may want to track the sentiment of users towards them on social media before and after an advertising campaign, or a news service may want to recognize key entities in a news story to generate a high-quality automated summary. But text is not numbers, and even representing it as ASCII/Unicode values doesn't capture the meaning, just the abstract labeling of symbols. How can we hope to achieve these sorts of tasks?

In this sprint we will learn assorted NLP (Natural Language Processing) techniques. Many involve cleaning and preprocessing, which can then allow us to feed the data into the more traditional statistical models we are familiar with. There are also more advanced specialized models that are particularly conducive to NLP which we will address.

**Neural Network Foundations** **40 Hours**

Neural Networks, or the latest and greatest in predictive modeling. Or is it? Inspired by biology and based on math that's been around for decades, the past few years have seen some pretty impressive results as computational resources allow running much larger networks.

**Major Neural Network Architectures** **40 Hours**

Now that you've learned the foundations of Neural Networks, it's time to go deep! All "deep learning" really means is "there's at least some hidden layers," but there's a great deal of variety both in the layer architecture and the behavior of individual "neurons" in the network.

We'll study a few of the most effective recent innovations in neural networks and deep learning and think a bit about what the future may hold. Is deep learning the path to artificial general intelligence? Probably not – but it's a pretty useful tool along the way.

**Applied Computer Science 4** **40 Hours**

Explore programming and problem solving skills that will prepare you to pass a technical exam and start working on your job search by completing career readiness activities

## Applied Computer Science

*Prerequisite: Successful completion of all courses within Development Core*

**Applied Computer Science 5 - 8** **160 Hours**
Students will continue to build upon problem solving skills that will help improve their ability to solve coding challenges and attain higher scores on a technical exam. In addition, students will receive personalized feedback on their career artifacts, opportunity to practice technical interviewing skills and attend information sessions offered by hiring partners.

## Bloom Institute of Technology Labs

*Prerequisite: Successful completion of all courses within Development Core*

**BloomTech Labs: Labs 1 - 4** **160 Hours**
Bloom Institute of Technology offers students a professional immersive experience during Labs. They gain valuable experiential practice that solidifies their core skill learnings. They learn how to operate in an agile environment and follow a standard development process.

## ENTERPRISE BACKEND DEVELOPMENT

**Required Program Length:** 1440 hours / 36 Sprints

**Cumulative Final Exam:** None
**Graduation Document:** Certificate Of Completion
**Standard Occupational Codes / Potential Employment Titles:** 15-1251
**Sample of reported job titles:** Computer Programmer, Software Developer, Web Developer, Programmer, Software Engineer, Technology Applications Engineer, Web Architect, Web Development Director, Web Development Instructor, Webmaster, Backend Engineer, Backend Developer

**Program Description:**
This program teaches the foundations of backend development and computer science. Students will learn backend development with some of the most in-demand technologies. Upon completing the program, students will have worked on numerous projects built with the same tools that companies of all sizes use. Additionally, students will have engaged with the necessary Computer Science fundamentals to succeed as a software engineer. This course of instruction prepares individuals for entry-level software engineering and back-end developer jobs. Graduates may find suitable

employment with technology companies and traditional companies with the need for back-end developers.

**Program Objectives:**
Upon successful completion of this program, the student should be able to:

- Convert a design into code and deliver it using best practices
- Write secure, testable, and maintainable code
- Understand when and why to use (or not) a broad range of data structures and algorithms
- Create unit tests that thoroughly test functionality
- Create integration tests that verify end-to-end service integration
- Troubleshoot by debugging and reviewing errors, logfiles, and metrics
- Contribute to planning and design using a scrum process
- Demonstrate mastery of the program's objectives

**Program Outline:**

| Enterprise Backend Development Core | Course Title | Lecture | Lab |
|---|---|---|---|
| | Java Fundamentals | 8 | 32 |
| | Continuing with Java | 8 | 32 |
| | Loops and Data Structures | 8 | 32 |
| | Gradle | 8 | 32 |
| | Debugging | 8 | 32 |
| | Encapsulation and Generics | 8 | 32 |
| | Lists and Big O | 8 | 32 |
| | Observer, State, and Regex | 8 | 32 |
| | Inheritance and Polymorphism | 8 | 32 |
| | Sets and Maps | 8 | 32 |
| | Mocking and AWS Lambda | 8 | 32 |
| | Implementing Advanced UML | 8 | 32 |
| | Intro to DynamoDB | 8 | 32 |
| | Dependency Injection | 8 | 32 |
| | Searching and Recursion | 8 | 32 |
| | Applied Computer Science 1 | 10 | 30 |
| | Learn and Be Curious 1 | 8 | 32 |
| | Learn and Be Curious 2 | 8 | 32 |
| | Learn and Be Curious 3 | 8 | 32 |
| | Applied Computer Science 2 | 10 | 30 |
| | Sprint and Query | 8 | 32 |

| | | | |
|---|---|---|---|
| | Stacks, Immutability, and Caching | 8 | 32 |
| | Threads | 8 | 32 |
| | Applied Computer Science 3 | 10 | 30 |
| | Converting Data | 8 | 32 |
| | Advanced Threads | 8 | 32 |
| | Relational Databases | 8 | 32 |
| | Applied Computer Science 4 | 10 | 30 |
| | **Total Core Hours** | **232** | **888** |

| Applied Computer Science | Course Title | Lecture | Lab |
|---|---|---|---|
| | Applied Computer Science 5 - 9 | 40 | 120 |
| | **Total ACS Hours** | **40** | **120** |

| Bloom Institute of Technology Labs | Course Title | Lecture | Lab |
|---|---|---|---|
| | Bloom Institute of Technology Labs 1 - 4 | 20 | 140 |
| | **Total Hours:** | **20** | **140** |
| | | **Total Program Hours** | **1440** |

# COURSE DESCRIPTIONS

## Enterprise Backend Development

**Java Fundamentals** **40 Hours**

In this sprint, you'll learn some basics about the command-line and using an IDE. You will also start with Git repositories, as well as variables, arithmetic operations, and producing output in the console. You'll learn about Strings, collecting user input in your programs, and using comments.

**Continuing with Java** **40 Hours**

This sprint will enable you to continue getting more comfortable with Java programming fundamentals and object-oriented design. You will also start working with classes, objects, controlling access, and designing classes. You will learn about boolean logic, conditionals, and enums, and you will also start working with exceptions.

**Loops and Data Structures** **40 Hours**

This sprint will ensure you are comfortable with all the Java programming and object-oriented basics you need to succeed in the rest of the program. You'll learn about loops and arrays. You will also start working with exceptions and make sure you understand "pass-by-value".

**Gradle** **40 Hours**

You will begin to create more structured and intentionally designed applications. You will utilize Gradle as the build manager, adhere to specific design patterns, read and write from data files, and you will be designing class and sequence diagrams detailing the project's internal design.

**Debugging** **40 Hours**

You will learn how Java is used to develop Backend (or Server) software applications. You will also learn how to ensure high code quality by creating a Test Plan and Unit Tests. One of the most valuable skills you will practice is how to “walk through” code using debugging tools. You will even “look under the hood” to understand how the Java Virtual Machine executes application code and manages the data and objects that make up the program’s state.

**Encapsulation and Generics** **40 Hours**

Here you’ll explore some of the fundamental ideas behind OOP, or Object Oriented Programming, which has allowed software teams to build projects consisting of millions of lines of code without getting overwhelmed by complexity. Java is one of the most successful OOP languages.

As you start learning the basics of Encapsulation, Polymorphism, and other OOP concepts, you’ll be able to work with large and complex codesets without getting lost. You’ll be able to make meaningful contributions to teams and even start to build projects of your own.

**Lists and Big O** **40 Hours**

Software projects can’t scale very well without managing lots of things together. In this sprint, you will learn about Lists. Lists are the first of many Java Collection objects you will get familiar with. You will learn how to compare two Java objects and how to sort lists.

BigO notation is a special vernacular that lets us define the complexity of methods and algorithms. BigO, together with some OOP terminology we started getting familiar with in the last sprint, is a new language. Not a programming language to talk to computers, but a programmer’s language you’ll use in your career!

**Observer, State, and Regex** **40 Hours**

We will begin with an exploration of the Observer design pattern. We'll see that often making requests to large databases can take a long time and use up a lot of bandwidth. We'll then move on to learning data processing tools like RegEx which allows us to pattern-match text- very useful for parsing information out of a file. And speaking of files, we'll learn to translate Java object data into human-readable text files and then back into Java objects. The JSON formation is just one of many standardized forms of transmitting data between applications, and because it is not language-specific and easy to transmit, it allows communication across platforms.

**Inheritance and Polymorphism** **40 Hours**

Remote debugging is an essential tool for tracking down bugs and solutions. We will start this Sprint by showing you how to do just that. We will also introduce two design patterns that you may have already become acquainted with: inheritance and polymorphism. Finally, we will go over the concept of hashing which is used in great length and effect in many facets of computer science.

**Sets and Maps** **40 Hours**

You will learn two new data structures in sets and maps. You will see these data structures used in many capacities (especially maps), and you will want to become very familiar with them. With these data structures and the design patterns you've learned, it's time we learn some new strategies and patterns when designing our code. Designing and planning out your code will help you think like a computer scientist and start to see problems in a whole new way.

**Mocking and AWS Lambda** **40 Hours**

You will learn how to mock a class to control its behaviors to give you the temporary results that you desire to test another class. Another important topic covered here is "static" and how it relates to methods and variables. Finally, we will build an AWS Lambda function. This will be your first real backend experience and things only get more interesting from here.

**Implementing Advanced UML** **40 Hours**

You will be working with multiple Amazon Web Services and learning to have these services work together in a single project. Before we get to that we need to prepare a solid foundation of understanding. This sprint will be focusing on laying the groundwork for these advanced concepts.

**Intro to DynamoDB** **40 Hours**

So far, we have covered various concepts in Java. Now you will start to learn how to integrate this code with other components of our software. In this sprint, you will learn databases and how to read from and write to the databases. Then you will integrate databases with our Java code. You will also learn about RESTful APIs - what they are, how to write one and also how to call an API.

**Dependency Injection** **40 Hours**

Now that we have learned about databases and APIs, in this sprint you will learn how to write custom exceptions to enhance your code. You will also learn about dependency injection so you can automate dependencies. And lastly, you will learn about another data structure - Linked List.

**Searching and Recursion** **40 Hours**

You will learn various searching and sorting algorithms along with their time complexity. Then you will learn about recursion and its benefits. At the end, you will deploy the APIs you have created so far and create your own API Gateway.

**Applied Computer Science 1** **40 Hours**

Explore programming and problem solving skills that will prepare you to pass a technical exam and start working on your job search by completing career readiness activities.

**Learn and Be Curious 1** **40 Hours**

Learn and Be Curious is an opportunity for you to develop and build your own ideas. In this first sprint, you'll be designing the application you wish to build. You will come up with the idea, outline the technical requirements, create wireframes that show what the app should look like on the screen, and document your designs to be reviewed by your instructor before you build it. Take your time in the design sprint and plan a project that meets the requirements and takes two weeks to complete.

**Learn and Be Curious 2** **40 Hours**

Learn and Be Curious is an opportunity for you to develop and build your own ideas. You'll be tasked to come up with a plan, build the project, and present your work at the end of the unit, all resulting in a fantastic portfolio piece and a great learning experience. As you're working on your project, feel free to reach out to other Students to brainstorm ideas and help solve technical issues. If you'd prefer, you can team up with others in this unit and learn how to work in a team environment. The guided projects and Code-Alongs in Learn and Be Curious are geared toward helping you plan and design your project. You'll use the tools you've learned throughout this course to bring your plans to life. Take your time in the design sprint and plan a project that meets the requirements and takes two weeks to complete.

**Learn and Be Curious 3** **40 Hours**

In the last Learn and Be Curious sprint, you'll finish building your project and prepare to present it to your instructor. This project will likely become one of your best projects on your resume, and all the artifacts are intended to help you stand out among your peers in the job search.

**Applied Computer Science 2** **40 Hours**

Explore programming and problem solving skills that will prepare you to pass a technical exam and start working on your job search by completing career readiness activities.

**Sprint and Query** **40 Hours**

In this sprint, we will dig deeper into processing linear Collections class objects as well as create a simple server based application. In addition your knowledge of DynamoDB queries and delete operations will be enhanced.

**Stacks, Immutability, and Caching** **40 Hours**

You will learn about two new data structure options for storing and processing data. Pitfalls of each and how to avoid those pitfalls will also be presented. Examination of common application performance bottlenecks will be discussed as well as how to identify them and determine options for solving them. You will start your journey into the world of concurrent processing will begin with the concepts of immutability and caching.

**Threads** **40 Hours**

In this sprint, we will continue our journey into concurrency by discussing threads and thread management. Defining and storing metrics regarding program performance and application processing in a cloud based data store will be presented. Use of Lambda Expressions with Stream class methods for linear data structure processing rounds out the Sprint.

**Applied Computer Science 3** **40 Hours**
Explore programming and problem solving skills that will prepare you to pass a technical exam and start working on your job search by completing career readiness activities

**Converting Data** **40 Hours**
You will discover when and how to use Optionals in a real-world setting. You will gain a better understanding of Streams, Serialization, and De-serialization. You will be scanning a DynamoDB table to filter and select a portion of relevant data while also refactoring a code base to fix issues. You will incorporate all of the above into the code and understand when to refactor said code, and use the methodologies and flows in a real-world setting. Throughout your career, you use these techniques to build meaningful and performant data-driven applications along with a subset of skills that you will pick up, such as refactoring and reworking bad/unperforming code into better, cleaner, and more well-managed code.

**Advanced Threads** **40 Hours**
You will learn how and when to use Executor Services, Futures, and Trees in a Thread Safe manner to allow you to gain a better understanding of their usage in a real-world setting to help consolidate your learning thus far.

**Relational Databases** **40 Hours**
You will learn Graphs and how to traverse them in a real-world setting. We will cover Service Design methodologies and get a first-hand experience with them. You will also learn structured query language and how it pertains to relational databases. Finally, we will review the subject matter you have already learned to solidify your understanding. All of the topics in this sprint help make you a complete software engineer and give you some ancillary knowledge.

**Applied Computer Science 4** **40 Hours**
Explore programming and problem solving skills that will prepare you to pass a technical exam and start working on your job search by completing career readiness activities.

## Applied Computer Science

*Prerequisite: Successful completion of all courses within Development Core*

**Applied Computer Science 5 - 8** **160 Hours**
Students will continue to build upon problem solving skills that will help improve their ability to solve coding challenges and attain higher scores on a technical exam. In

addition, students will receive personalized feedback on their career artifacts, opportunity to practice technical interviewing skills and attend information sessions offered by hiring partners.

**Bloom Institute of Technology Labs**

*Prerequisite: Successful completion of all courses within Development Core*

**BloomTech Labs: Labs 1 - 4** **160 Hours**

Bloom Institute of Technology offers students a professional immersive experience during Labs. They gain valuable experiential practice that solidifies their core skill learnings. They learn how to operate in an agile environment and follow a standard development process.

# MANAGEMENT AND FACULTY

## BOARD OF TRUSTEES

JOHN DANNER, Dunce Capital - Board Member
STEPHEN OSKOUI, Managing Partner at Gigafund - Board Member
AUSTEN ALLRED, Bloom Institute of Technology Co-Founder and CEO - Board Member
ELIAS TORRES, Drift - Board Member

## MANAGEMENT

AUSTEN ALLRED, Co-Founder/CEO
ZORAN Martinovic, Chief Operating Officer
JOSH KNELL, Chief Academic Officer
XIMENA FLORES, Deputy General Counsel and Head of HR

## FACULTY

| Instructor Name | Courses Taught | Education / Experience |
|---|---|---|
| **ADITYA GUPTA** | Data Science + ACS | Visveswaraya Technological University - Bachelors of Engineering in Electronics and Communication<br>4+ years of industry experience |
| **ASGHAR NAZIR** | Enterprise Backend Development + ACS | National University of Computer & Emerging Sciences - Bachelor of Computer Engineering<br>5 years of industry experience |
| **CHIMZI CHIORLU** | Full Stack Web Development + ACS | University of Lagos - Bachelor of Science in Chemical Engineering<br>4+ years of industry experience |

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|---|---|---|
| **DANIEL GEMARA** | Data Science + ACS | University of Toronto - Masters of Industrial Engineering and Data Science<br>York University - Bachelors of Applied Mathematics<br>4 years of industry experience |
| **DEREK PETERS** | BloomTech Labs | King University – Masters of Business Administration<br>King University – Bachelors of Arts in Business Management, & BTECH – Computer Science Engineering<br>9 years of industry experience |
| **ESRAA IBRAHIM** | Applied Computer Science (ACS) | Arizona State University - Masters of Software Engineering<br>6 years of industry experience |
| **GABRIEL BARROS** | Full Stack Web Development + ACS | Federal University of Rio de Janeiro - Bachelor of Civil Engineering in Structure and Materials<br>3+ years of industry experience |
| **JACOB PLUMB** | Full Stack Web Development + ACS | 5+ years of industry experience |
| **JEFF BRICKER** | Data Science + ACS | University of Michigan - Masters of Business Administration<br>Michigan Tech. - Bachelors of Electrical Engineering<br>14+ years of industry experience |
| **JULIA PERRY** | Applied Computer Science (ACS) | Alliance Theological Seminary - Master of Arts in Intercultural Studies<br>3 years of industry experience |
| **KEVIN LIU** | Enterprise Backend Development + ACS | University of California, San Diego - Bachelor of Science in Human Biology; Pre Med<br>8 years of industry experience |
| **OMER HALIT** | Enterprise Backend Development + ACS | Multimedia University - Bachelor of Software Engineering and Game Design<br>9+ years of industry experience |
| **PARSHVI SRIVASTAV** | Full Stack Web Development + ACS + BloomTech Labs | Birla Institute of Technology - Bachelor of Engineering<br>4 years of industry experience |
| **POOJA THAKUR** | Data Science + ACS | Ryerson University - PhD in Aerospace Engineering<br>University of Toronto - Master's of Science in Aerospace Engineering<br>7 years of industry experience |
| **RAY DE LA PAZ** | Full Stack Web Development + ACS + BloomTech Labs | 14 years of industry experience |

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|---|---|---|
| **RITA ALFONSO** | Full Stack Web Development + ACS + BloomTech Labs | Stony Brook University - PhD of Philosophy<br>5 years of industry experience |
| **SARAH ABDU** | Enterprise Backend Development + ACS | Ain Shams University - Masters of Computer Engineering<br>Ain Shams University - Bachelors of Computer Engineering<br>7+ years of industry experience |
| **SARAH CALANDE** | Full Stack Web Development + ACS | University of Southern California - Bachelors of Psychology<br>3 years of industry experience |
| **SOUMYA GHOSH** | Enterprise Backend Development + ACS | West Bengal University of Technology - Bachelors of Computer Science and Engineering<br>5+ years of industry experience |
| **THOMAS DILLARD** | Full Stack Web Development + ACS | 5+ years of industry experience |
| **TOM TARPEY** | Enterprise Backend Development + ACS | 23 years of industry experience |
| **VERONICA EYO** | Data Science + ACS | University of Florida - Masters of Electrical and Computer Engineering<br>Federal University of Technology Minna - Bachelors of Electrical and Computer Engineering<br>11+ years of industry experience |
| **WAQAS AHMED** | Data Science + ACS | Virtual University of Pakistan - Masters of Computer Science<br>University of Engineering and Technology - Masters of Science in Mining Engineering<br>3+ years of industry experience |

## STATE OF CALIFORNIA CONSUMER INFORMATION

As a prospective student, you are encouraged to review this catalog prior to signing an enrollment agreement. You are also encouraged to review the School Performance Fact Sheet, which must be provided to you prior to signing an enrollment agreement.

The programs offered at Bloom Institute of Technology are not designed nor lead to positions in a profession, occupation, trade, or career field requiring licensure in the state of California.

Any questions a student may have regarding this catalog that have not been satisfactorily answered by the institution may be directed to the Bureau for Private Postsecondary Education at p.o Box 980818, West Sacramento, CA 95798-0818 , www.bppe.ca.gov, toll-free telephone number (888) 370-7589 or by fax (916) 263-1897.

Bloom Institute of Technology has never filed a bankruptcy petition, operated as a debtor in possession or had a petition of bankruptcy filed against it within the preceding five years that resulted in reorganization under Chapter 11 of the United States Bankruptcy Code (11 U.S.C. Sec. 1101 et seq.).

Bloom Institute of Technology does not participate in federal or state financial aid programs.

Bloom Institute of Technology is not accredited by an agency recognized by the United States Department of Education (USDE) and students are not eligible for federal financial aid programs.

## STUDENT TUITION RECOVERY FUND

The State of California established the Student Tuition Recovery Fund (STRF) to relieve or mitigate economic loss suffered by a student in an educational program at a qualifying institution, who is or was a California resident while enrolled, or was enrolled in a residency program, if the student enrolled in the institution, prepaid tuition, and suffered an economic loss. Unless relieved of the obligation to do so, you must pay the state-imposed assessment for the STRF, or it must be paid on your behalf, if you are a student in an educational program, who is a California resident, or are enrolled in a residency program, and prepay all or part of your tuition.

You are not eligible for protection from the STRF and you are not required to pay the STRF assessment, if you are not a California resident, or are not enrolled in a residency program.

It is important that you keep copies of your enrollment agreement, financial aid documents, receipts, or any other information that documents the amount paid to the school. Questions regarding the STRF may be directed to the Bureau for Private Postsecondary Education, 1747 N Market blvd.,  Suite 225, Sacramento, CA 95834, (916) 431-6959 or (888) 370-7589.

To be eligible for STRF, you must be a California resident or are enrolled in a residency program, prepaid tuition, paid or deemed to have paid the STRF assessment, and suffered an economic loss as a result of any of the following:

1. The institution, a location of the institution, or an educational program offered by the institution was closed or discontinued, and you did not choose to participate in a teach-out plan approved by the Bureau or did not complete a chosen teach-out plan approved by the Bureau.

2. You were enrolled at an institution or a location of the institution within the 120 day period before the closure of the institution or location of the institution, or were enrolled in an educational program within the 120 day period before the program was discontinued.

3. You were enrolled at an institution or a location of the institution more than 120 days before the closure of the institution or location of the institution, in an educational program offered by the institution as to which the Bureau determined there was a significant decline in the quality or value of the program more than 120 days before closure.

4. The institution has been ordered to pay a refund by the Bureau but has failed to do so.

5. The institution has failed to pay or reimburse loan proceeds under a federal student loan program as required by law, or has failed to pay or reimburse proceeds received by the institution in excess of tuition and other costs.

6. You have been awarded restitution, a refund, or other monetary award by an arbitrator or court, based on a violation of this chapter by an institution or representative of an institution, but have been unable to collect the award from the institution.

7. You sought legal counsel that resulted in the cancellation of one or more of your student loans and have an invoice for services rendered and evidence of the cancellation of the student loan or loans.

To qualify for STRF reimbursement, the application must be received within four (4) years from the date of the action or event that made the student eligible for recovery from STRF.

A student whose loan is revived by a loan holder or debt collector after a period of noncollection may, at any time, file a written application for recovery from STRF for the debt that would have otherwise been eligible for recovery. If it has been more than four (4) years since the action or event that made the student eligible, the student must have filed a written application for recovery within the original four (4) year period, unless the period has been extended by another act of law.