

WEB PROGRAMMING & DEVELOPMENT

APPLICATION INSTRUCTION PACKET - Spring 2020

Please read through this entire packet very carefully. The application process for the MTECH Web Programming & Development Program must be completed by the dates listed below. MTECH may interview applicants after the application process is complete. Applicants that are accepted will be notified no later than 7 business days after the application period closes. The applications dates are as follows:

SPRING (January cohort): October 15–November 15 of applicable year.

FALL (August cohort): May 15–June 15 of applicable year.

Application Information

1. Incomplete applications, received at any time, will not be considered or scored.
2. Applicants must take the MTECH Career Ready 101 Math and Reading assessment and score a minimum of 4 for each section. The applicants have the best chance for admission if scores are higher than the minimum score for a combined Math and Reading comprehension assessment. This exam is free to take and can be completed during normal testing hours on a walk-in basis at the Lehi Thanksgiving Point Main Campus. You can attempt this assessment as many times you need for a higher score. There is a waiting period of at least 24 hours for any repeat attempts. Please call the MTECH Testing Center for more information at 801-753-4110.
3. Applicants must have successfully completed the Introduction to Programming prerequisite course before being eligible to apply for the Web Programming & Development Program. Students who have previous programming and educational experience are welcome to attempt the Web Programming and Development Competency Exam at the MTECH Testing Center. Only one attempt at the Competency Exam will be offered. If this exam is not passed with a percentage of 85% or better, the prospective applicant must enroll and successfully complete the prerequisite course. The Code to Success (High School summer program) certificate holders, can apply within one year of the certificate issue date.
4. **Submitting an application does not guarantee admission to the program.**
5. Entry into the program is determined by a competitive, points-based process.
6. A waiting list will be developed in the order of application point value until the 1st day of class should a student decide not to attend. Any applicants not accepted must reapply during the next application period to be considered again.
7. The application process will not discriminate based on race, color, national origin, religious background, sexual orientation, age or disability.
8. This is a 903 clock hour program, including a 240 hour externship.
9. All payments of tuition and fees must be made 2 weeks prior to class start date or program acceptance will be rescinded.
10. If you are applying for Federal Financial Aid, please go to <http://mtec.edu/financial-aid/> for more information. You must contact the Financial

Aid department immediately upon receiving acceptance to the program in order to have funding by the payment due date. If financial aid eligibility has not been established before this date, your program acceptance will be rescinded.

PROGRAM DESCRIPTION

This program provides students with the knowledge, computational, problem-solving and practical skills needed to integrate and deploy modern websites and web applications. Students will adapt and use industry-standard tools, including modern client-side and server-side languages, relational and non-relational database structures to frameworks used in the web industry today.

Experienced web developers and software engineers in the industry provide instruction, share knowledge, skill sets and mentor the students. This program is designed to give students the skills needed to be a Front-End, Junior-Level Web Developer or Quality Assurance Technician.

This program, in collaboration with Xactware and many other nearby technology companies, will provide students the foundation in web development so they can become an entry-level, junior-level web developer and find employment within the related technical industry. Students will learn theory and skills that will give real-world application to the concepts they have learned.

This course is taught by industry developers, engineers, project and/or department managers who all utilize what they teach daily. Students will learn basic Front End Development including IDE, Basic OS, Source Control, HTML, CSS, Bootstrap and Troubleshooting. Students will then spend the majority of the program learning LESS, SCSS, JavaScript, TypeScript, Angular and React. The remainder of the program will cover Back-End Development as it relates to Back-end servers, Database, Hosting, Deployment, Security and Automated QA.

Throughout the program students will complete a series of professional portfolio projects when they complete the program. Finally, students must complete a 240 hour externship in order to receive a certificate of completion for this program. By the end of this course, students will have the knowledge, confidence, and skills to be employed as an entry-level or junior-level web developer in today's job market.

MTECH WEB PROGRAMMING & DEVELOPMENT - PLAN OF STUDY

PROGRAM COMPONENTS	LAB	LECTURE	HYBRID	TOTAL
Introduction to Front End Development; including IDE, Basic OS, HTML/CSS, LESS/SCSS, Bootstrap	50.4	21.6	23	95
JavaScript	98.7	42.3	25	166

TypeScript and Angular	77.7	33.3	26	137
React and Redux	56.7	24.3	9	90
Back End Development; including Automated QA, Servers, Database, Hosting, Deployment, Security	90.3	38.7	16	145
Workplace Relations/Soft Skills Training	10.5	4.5	15	30
Externship	240	0	0	240
Total	624.3	164.7	114	903

EXTERNSHIP POLICY

Upon satisfactory completion of all exams and payment of all college costs and fees, students are eligible for an externship. The externship of the program can only begin if the student has passed all module competencies. All students must be fully prepared, able, and willing to appropriately represent Mountainland Technical College. Students are encouraged to find their own externship site, however, MTECH can help if needed.

General Externship Guidelines

Upon completion of the classroom portion of the MTECH Web Programming & Development program, students will participate in a 240 hour externship. During the externship, students are given opportunities to apply their newly developed programming skills while working in a real-world software development environment.

Below are some of the primary components of the externship program.

- Students are embedded into existing development teams, or organized into small project groups with other students.
- Students may select a 20 hour or 40 hour work week schedule (totaling 240 hours).
- Students engage in tasks and assignments to support product development and/or other special development projects.
- Students are given the opportunity to shadow and collaborate with experienced developers.
- Students are assigned a supervisor or mentor who acts as a support resource.
- Students will submit a weekly report to the program coordinator to assess experience and progress toward objectives.
- Program coordinator will request for quarterly report from the externship supervisor to assess student performance and progress toward objectives.

Students will be required to successfully complete all 240 externship hours in order to complete the program and obtain a Certificate of Completion in Web Programming &

Development from Mountainland Technical College. Students must complete all externship hours within 15 weeks of completing the last day of instruction. Any hours not completed within this 15 weeks will could result in being ineligible for program completion and may result in being dropped from the program. Externship hours can be accomplished through a full-time (8 hours daily) or part-time (4 hours daily) schedule.

It is crucial that attendance, attitude, appearance and performance, while an extern, be exemplary; you are being evaluated. The on-site supervisor will be completing a review of your skills, appearance and dependability. Students are expected to present themselves in a manner as if they were an employee. If an employer gives an unsatisfactory evaluation at the conclusion of the externship, the student's progress will be evaluated and the student will be required to meet with the Program Coordinator. Any unprofessional behavior will result in being dropped from the program.

Students have options to make their own arrangement for externship hours or work toward the goal of having MTECH assist with placement. Any externship arrangements made by students must be communicated to the Program Coordinator for approval. All MTECH arranged externships will be determined by site availability over students preference. Students are responsible for reliable transportation to and from their externship site. Cooperation and flexibility is crucial.

MTECH Externship Placement Criteria

Students who score a total of 900 points or better at the end of the program and have no more than 3 absences throughout the entire program with less than two (2) academic improvement plans will receive assistance in finding unpaid externship placement through MTECH Program Coordinator. No promise or guarantee of employment and placement is expected but it is always a possibility.

Students who score less than 900 points overall and have more than 3 absences throughout the entire program will be required to find their own externship. The MTECH Program Coordinator will work together with students by providing business contacts, leads and job postings to assist students in finding their own externship. However, the ultimate responsibility for finding the required and approved externship will be transferred to the student.

<u>Externship Placement Criteria</u>	<u>Points</u>
Externship Placement assistance through MTECH (0-3 absences)	900 or higher
Provide contacts, guide and help students find their own Externship (more than 3 absences)	889-700

EXTERNSHIP STUDENT LEARNING OUTCOMES

Students are given opportunity to apply key skills obtained in the classroom portion of the program. The externship program is structured to meet and fulfill the following program objectives:

- Write, review and edit code using Webstorm or similar IDE.
- Use operating system commands and utilities to execute, test, troubleshoot and configure code and web applications.
- Use source control principles and technologies to track and manage code.
- Write, review, and edit code while completing assigned tasks.
- Troubleshoot and debug code.
- Utilize knowledge of back-end (server side) technologies while completing assigned tasks.
- Utilize knowledge of database technologies while completing assigned tasks.
- Collaborate with other team members while working to complete defined project goals.

BACKGROUND CHECKS

Prior to each student's externship, Web Programming & Development students may be required to complete a background check through the Utah Bureau of Criminal Identification. Any student found to have a misdemeanor or felony may not be allowed to participate in an externship.

PROGRESSION PROCEDURE

All students must maintain a progress rate of 85% (B grade) or better. Failing to do so will result in the student being placed on an Academic Improvement Plan by the instructor. If the Academic Improvement Plan is not followed and achieved in the time frame allotted, the student will be put on a probationary contract by the MTECH Academic and Career counselor. If the student does not meet the conditions of the probationary contract by the date indicated, the student may be dismissed from the program.

STUDENT ATTENDANCE POLICY

Due to the lectures and hands-on nature of the training received, attendance is very important in all MTECH programs. It is very difficult to make up missed training and as a result, 85% attendance is required in all MTECH programs. However, due to state licensure requirements, some programs have stricter attendance rules that must be met in order to receive the license. These rules will be explained by the instructors of those programs. It is the responsibility of the student to notify the instructor as soon as possible, as to upcoming absences or emergencies that may arise causing them to miss class.

MTECH WEB PROGRAMMING & DEVELOPMENT CLASS SCHEDULE (EXTERNSHIP TIMES WILL VARY)

DAYS	TIMES
Monday	7:30 am-10:30 am
Tuesday	7:30 am-10:30 am
Wednesday	7:30 am-10:30 am
Thursday	7:30 am-10:30 am
Friday	7:30 am-10:30 am

WEB PROGRAMMING & DEVELOPMENT PROGRAM COSTS

(This cost breakdown covers the entire program)

TUITION	\$1,896.30
Fees	<p>Option 3: \$1,850.00 Program fee includes: 13.3" MacBook Air (1.6GHz dual-core 8th-generation Intel Core i5 processor, Turbo Boost up to 3.6GHz, Retina display, 8GB 2133MHz LPDDR3 memory, 128GB SSD storage, Intel UHD Graphics 617, Touch ID, Force Touch trackpad, Two Thunderbolt 3 ports, Backlit Keyboard. *Please note, once the student receives, opens and starts the computer for the first time, the device now belongs to the student and cannot be returned to MTECH for a refund. Apple Care available through the Apple Store 60 days after the purchase date, receipt available through the Web Programming & Development Coordinator.</p>
	<p>Option 2: \$1,000.00: To be eligible for this fee, students must have their own Apple device that meets the minimum specification: 8GB Memory; 128GB SSD or better; USB and HDMI ports. Students must contact the Web Programming & Development Coordinator to be approved for this.</p>

	<p>Option 1: \$2,250: Program fee includes: 13" MacBook Pro (2.3GHz quad-core 8th-generation Intel Core i5 processor, Turbo Boost up to 3.8GHz, Intel Iris Plus Graphics 655, 8GB 2133MHz LPDDR3 memory, 256GB SSD storage¹, Retina display with True Tone, Touch Bar and Touch ID, Four Thunderbolt 3 ports. *Please note, once the student receives, opens and starts the computer for the first time, the device now belongs to the student and cannot be returned to MTECH for a refund. Apple Care available through the Apple Store 60 days after the purchase date, receipt available through the Web Programming & Development Coordinator.</p>
TRAINING MATERIALS AND LEARNING RESOURCES	INCLUDED IN FEES
MTECH FACILITY FEE	\$50.00
MTECH REGISTRATION FEE	\$40.00
TOTAL	Determined by Program Fee Option Choice (see above)

Please Note:

1. Tuition and Fees are DUE once admitted to the Web Programming & Development Program.
2. If you are accepted you will be notified by email or phone, of the due dates for the fees.
3. Tuition rates generally change annually on July 1st, and may increase from current rates.
4. The above costs are estimates only. The cost for fees, tuition and any other associated costs are subject to change at any time and without notice.
5. Please note, if the student is accepted into the program and chooses to pay program fees that include a computing device, once the student receives, opens and starts the

computer for the first time, the device now belongs to the student and cannot be returned to MTECH for a refund.

HOW TO APPLY

Only applicants who have successfully completed the Introduction to Programming prerequisite course or successfully passed the Competency Exam can apply. The applicants who have completed Code to Success will need to pass the Competency Exam before they apply.

Prerequisites to apply:

1. Take and pass the *MTECH Career Ready Assessment* in math and reading with a minimum score of 4 on each section. The higher the score the better.
2. Take and pass the [Introduction to Programming](#) OR *Competency Exam* at the MTECH Testing. This exam cannot be retaken. Candidates have two hours to complete this exam with a score of 85% or better.

Apply:

3. Complete the *Code Challenge* at the MTECH Testing Center. Candidates have two hours to complete this challenge with a score of 85% or better.
4. Fill out web application provided at the end of completing the *Code Challenge*. Upload all supporting computer programming, computer technology or information technology documentation showing previous experience at the same time you fill out the online web application.

WHAT HAPPENS AFTER YOU APPLY

Once the application period is closed, the MTECH Web Programming & Development Coordinator will review all submissions. Applicants may be called in for a personal interview.

Applications will be evaluated using a point system with a standard rubric to select candidates based on the MTEC Math and Reading comprehension assessment scores, introduction to programming course or competency exam and the outcome of the coding challenge.

Applicants with the highest overall scores, will be offered acceptance in the program. All other qualified applicants will be placed on the alternate list. The Web Programming & Development faculty, Program Coordinator and Program Director reserves the right to interview additional qualified applications if the initial interviewees do not meet minimum

standards. Other seats may become available as additional facilities are secured for externship slots.

Code to Success Eligibility

The 90 hour web programming prerequisite course completion and certification of the most recent Code to Success summer program may result in the student being able to apply for the Mountainland Technical College (MTECH) Web Programming & Development program without having to complete the prerequisite requirements. Code to Success completion and certification is for application activities only and does not guarantee admittance to the Web Programming & Development program at Mountainland Technical College.

Prospective students must take certificate obtained from Code to Success to the MTECH Student Services office to waive the prerequisite requirements for the fall and spring semester program application dates (i.e. 2019 Code to Success certificate qualifies for the January 2020 and/or August 2020 application period). If the student does not pass the application process, the prerequisite process will be instituted for all other application attempts.

WEB PROGRAMMING & DEVELOPMENT APPLICATION POINT BREAKDOWN

Component	Maximum Point Value
MTECH entrance assessment results minimum score of 4 for both Math and Reading (<i>MTECH Testing Center</i>) * <ul style="list-style-type: none"> ● Score of 0-3 = retake assessment ● Score of 4 = 1 ● Score of 5 = 2 ● Score of 6 = 3 ● Score of 7 = 4 	4
Complete <u>one</u> of the following before doing Code Challenge <ol style="list-style-type: none"> 1). Intro. to Programming prerequisite course * <ul style="list-style-type: none"> ● Score of less than 70% = 0 ● Score of 70%-84% = 1 ● Score of 85%-90% = 2 ● Score of 90%-95% = 3 ● Score of 95%-100% = 4 	4
or 2). Competency Exam (<i>MTECH Testing Center</i>) *	

<ul style="list-style-type: none"> ● Score of less than 70% = 0 ● Score of 70%-84% = 1 ● Score of 85%-90% = 2 ● Score of 90%-95% = 3 ● Score of 95%-100% = 4 	
or 3). Code to Success	
Code Challenge (<i>MTECH Testing Center-cannot retake</i>) <ul style="list-style-type: none"> ● Score of less than 70% = 0 ● Score of 70%-84% = 1 ● Score of 85%-90% = 2 ● Score of 90%-95% = 3 ● Score of 95%-100% = 4 	4
Web Application (<i>This application can be completed at home and must be submitted within 3 days after taking the Code Challenge</i>)	1
TOTAL	13

Note: * prerequisite requirements.

Applications are only good for one application period. If you apply, but are not accepted, you must reapply at another time. Students need a score of total points of 15 out of 18 will be considered for admission into the program.

ADDITIONAL INFORMATION YOU WILL NEED IF YOU ARE ACCEPTED:

Interview and alternate notices will be sent out no later than 7 days after the application closing date. Acceptance notifications will be made available after the interviews are conducted and scored.

If you are an alternate you may be notified of an available seat as late as the first day of class.

NOTE: Admission to the program is contingent on:

1. Full payment of tuition, fees and registration with Student Services due two (2) weeks prior to the first day of class.

* Mountainland Technical College and the Web Programming & Development Program reserve the right to make changes to the program and the application criteria at any time based on requirements from the institutional accrediting body (The Council on Occupational Education), and the Program Advisory Committee.