

ITI .NET, MERN Belt Program

A Two-Year Progressive Training for University Students

-  **Yellow Belt** → Phase 1
-  **Orange Belt** → Phases 2 & 3
-  **Green Belt** → Phase 4
- Blue Belt** → Phases 5 & 6





Program Progression Rules

To ensure mastery and readiness for the next level, our program has clear advancement criteria.

1

Mandatory Progression

You must successfully pass each phase to advance to the next.

2

Performance Requirement

Failure to meet the passing criteria in any phase will result in exit from the program.

Phase 1(.NET) Yellow Belt

When: Summer after 2nd Year of University

Duration: 126 hours – Onsite at ITI

Key Content Areas

- **OOP with C# (42 hrs):** Fundamental principles of Object-Oriented Programming.
- **C# Advanced (48 hrs):** Deep dive into complex C# features and paradigms.
- **Source Control – Git (12 hrs):** Mastering version control for collaborative development.
- **Agile (18 hrs):** Introduction to agile methodologies for efficient project management.

Assessment Breakdown

- **Tasks (40%):** Practical assignments to reinforce learned concepts.
- **Project (40%):** A comprehensive project demonstrating integrated skills.
- **Coding Challenges (20%):** 20 problems solved on platforms like HackerRank/LeetCode to sharpen problem-solving abilities.

Phase 1(MERN) Yellow Belt

Foundations of Client-Side Development

When: Summer after 2nd Year of University

Duration: 126 hours – Onsite at ITI

Core Content

- Client-Side Technologies
- HTML5/CSS3 Fundamentals
- JavaScript Basics & DOM Manipulation
- jQuery & Bootstrap Frameworks
- Version Control with Git

Assessment Breakdown

- 40% Tasks after each lecture
- 40% Final Project showcasing learned skills
- 20% Problem Solving: 20+ accepted problems on HackerRank/LeetCode ($\geq 70\%$ accuracy)



Phase 2(.Net) Orange Belt

Intro to Web & Databases

When: 1st Semester of 3rd Year

Duration: Full Semester – Online + Weekly Q&A (3–6 hours)

Core Content

- Database Fundamentals
- HTML & CSS

Assessment Breakdown

- 40% Tasks completed during Q&A sessions
- 30% Comprehensive Final Exam or Project
- 30% Problem Solving: 20+ accepted problems on HackerRank/LeetCode ($\geq 70\%$ accuracy)



Phase 2(MERN) Orange Belt

Deep Dive into Modern JavaScript & Databases

When: 1st Semester of 3rd Year

Duration: Full Semester – Online + Weekly Q&A (3–6 hours)

Core Content

- Advanced Modern JavaScript Features (ES6+)
- TypeScript for Scalable Applications
- MongoDB NoSQL Database Management

Assessment Breakdown

- 40% Tasks completed during Q&A sessions
- 30% Comprehensive Final Exam or Project
- 30% Problem Solving: 20+ accepted problems on HackerRank/LeetCode ($\geq 70\%$ accuracy)



Phase 3(.NET) Orange Belt

Foundations of Client-Side Development and Responsive Web

When: 2nd Semester of 3rd Year

Duration: Full Semester – Online + Weekly Q&A (3 hours)

Core Content

- JavaScript
- Bootstrap Framework

Assessment Breakdown

- 40% Tasks completed during Q&A sessions
- 30% Comprehensive Final Exam or Project
- 30% Problem Solving: 20+ accepted problems on HackerRank/LeetCode ($\geq 70\%$ accuracy)



Phase 3(MERN) Orange Belt

Mastering UI/UX & React.js

When: 2nd Semester of 3rd Year

Duration: Full Semester – Online + Weekly Q&A (3 hours)

Core Content

- Principles of UI/UX Design
- Building Dynamic Interfaces with React.js
- Component-Based Architecture

Assessment Breakdown

- 40% Tasks completed during Q&A sessions
- 30% Comprehensive Final Exam or Project
- 30% Problem Solving: 20+ accepted problems on HackerRank/LeetCode ($\geq 70\%$ accuracy)

Phase 4(.Net) Green Belt

Advanced Back-End & Development Practices

When: Summer after 3rd Year

Duration: 132 hours – Onsite at ITI

Core Content

- HTML5 & CSS3
- SQL Server
- LINQ & Entity Framework
- Material UI for Responsive Design
- ASP.NET MVC Core
- ASP.NET Web API

Assessment Breakdown

- 40% Tasks after each lecture
- 40% Final Project integrating all learned concepts
- 20% Problem Solving: 20+ accepted problems on HackerRank/LeetCode ($\geq 70\%$ accuracy)

Phase 4(MERN) Green Belt

Advanced Front-End & Development Practices

When: Summer after 3rd Year

Duration: 87 hours – Onsite at ITI

Core Content

- JavaScript Design Patterns
- CSS Preprocessors (Sass, Less)
- Unit Testing Methodologies
- Material UI for Responsive Design
- Next.js for Full-Stack React Apps
- Secure Coding Practices
- Agile Development Principles

Assessment Breakdown

- 40% Tasks after each lecture
- 40% Final Project integrating all learned concepts
- 20% Problem Solving: 20+ accepted problems on HackerRank/LeetCode ($\geq 70\%$ accuracy)

Phase 5(.NET) Blue Belt

Advanced Front-End & Freelance Readiness

When: 1st Semester of 4th Year

Duration: Full Semester – Online + Weekly Q&A (3 hours)

Core Content

- ECMAScript 6
- React JS
- Freelance Skills: Project Management, Client Communication, Pricing

Assessment Breakdown

- 30% Tasks during Q&A sessions
- 30% Final Exam or Project
- 40% Freelance Portfolio: Complete professional freelance profile + secure 1 paid job



Phase 5(MERN) Blue Belt

Back-End Development & Freelance Readiness

When: 1st Semester of 4th Year

Duration: Full Semester – Online + Weekly Q&A (3 hours)

Core Content

- Node.js for Server-Side Programming
- Building RESTful APIs
- Express.js Framework
- Freelance Skills: Project Management, Client Communication, Pricing

Assessment Breakdown

- 30% Tasks during Q&A sessions
- 30% Final Exam or Project
- 40% Freelance Portfolio: Complete professional freelance profile + secure 1 paid job



Phase 6 Blue Belt

Generative AI & Graduation Capstone

When: 2nd Semester of 4th Year – Final Graduation Project

Duration: Full Semester – Online + Weekly Q&A (3 hours)

Core Content

- Introduction to Generative AI Concepts
- Applying AI in Web Development
- Capstone Project: Develop a solution for GovTech or an Industry Case

Assessment Breakdown

- 10% Tasks during Q&A sessions
- 10% GitHub repository with comprehensive project history
- 80% Final Project Evaluation:
 - Innovation – 25%
 - Functionality – 25%
 - Industry Relevance – 30%
 - Presentation/Demo Clarity – 20%



Graduate Profile & Career Opportunities

Upon successful graduation, students will possess a versatile skill set and a robust professional portfolio.

Verified Problem-Solving

✂ Strong problem-solving skills with verified achievements on HackerRank/LeetCode.

Professional Freelance Standing

💼 Professional freelance profile with at least 1 paid job completed.

Comprehensive Portfolio

📁 Public GitHub portfolio showcasing all projects and contributions.

Real-World Impact

🌐 Real-world project experience solving GovTech, SDG, or industry challenges.

Career Opportunities

- MERN/ .NET Stack Developer
- Front-End Engineer (React.js)
- Back-End Engineer (Node.js / .NET)
- Freelance Web Developer

Average Starting Salary

- Egypt: **EGP 15k–25k/month**
- Remote/Freelance: \$800–\$1500/month