

MASAI SCHOOL
COURSE CATALOG

16th May 2022 - 19th Jun 2022

Course Grading

Calculation

- Each Evaluation of the course will be graded on a scale of 0 to 10
- All the evaluations in the course will be assigned some weights based on the importance of topics covered in that particular evaluation
- The overall grade will be calculated based on the weighted average of the evaluation scores

Calculation Formula

- Course having 4 evaluations E1, E2, E3 & E4 with the respective weights W1, W2, W3 & W4
- Overall Scores - $((W1 * E1) + (W2 * E2) + (W3 * E3) + (W4 * E4)) / (W1 + W2 + W3 + W4)$

Sample Score Calculation

Student-A

- E1 - 7 W1 - 10
- E2 - 8 W2 - 15
- E3 - 5 W3 - 25
- E4 - 2 W4 - 50

Overall Score - $4.15 (10 \times 7 + 15 \times 8 + 25 \times 5 + 50 \times 2) / (10 + 15 + 25 + 50)$

Student-B

- E1 - 5 W1 - 10
- E2 - 6 W2 - 15
- E3 - 4 W3 - 25
- E4 - 4 W4 - 50

Overall Score - $4.4 (10 \times 5 + 15 \times 6 + 25 \times 4 + 50 \times 4) / (10 + 15 + 25 + 50)$

* In the above scenario even though the Student-A got more total score than Student-B the overall score of Student-B is more than Student-A

JS101

Introduction to Javascript

Course Details

Prerequisite - None

Instructor - Pulkrit Tyagi

Duration - 4 Weeks

Timings - 09:30 - 12:30

Course Topics

Javascript Introduction, Variables, Mathematical Operators, Conditional Statements, Loops, Arrays, Strings, Objects, Functions, Multi-Dimensional Arrays

Tools & Software

<https://replit.com/>

Evaluations

- JS101.E1
- JS101.E2
- JS101.E3
- JS101.EU

DSA101

Data Structures & Algorithms - Newbie

Course Details

Prerequisite - None

Instructor - Bicky Dutta

Duration - 3 Weeks

Timings - 14:00 - 16:00

Course Topics

Data Structures Introduction, Implementation, Arrays, Strings, Loops, Bruteforce,

Evaluations

- DSA101.E1
- DSA101.E2
- DSA101.EU

WEB101

Introduction to Web Development

Course Details

Prerequisite - JS101

Instructor - Chandrasekhar & Sourav Das

Duration - 4 Weeks

Timings - 14:00 - 17:00

Course Topics

HTML, CSS, DOM, Local Storage, GIT

Tools & Software

VSCode, GIT

Evaluations

- WEB101.E1
- WEB101.E2
- WEB101.E3
- WEB101.E4

DSA111

Data Structures & Algorithms - Newbie Booster

Course Details

Prerequisite - DSA101

Instructor - Varun Bhatt

Duration - 4 Weeks

Timings - 09:30 - 11:30

Course Topics

Booster - Objects, Implementation, Loops, Arrays, Strings, Brute Force, 2D Arrays

Evaluations

- DSA111.E1
- DSA111.E2
- DSA111.E3
- DSA111.E4
- DSA111.EU

DSA201

Data Structures & Algorithms - Pupil

Course Details

Prerequisite - DSA101

Instructor - Ankush Chimnani

Duration - 4 Weeks

Timings - 09:30 - 11:30

Course Topics

Key Value Pairs, Complexity Analysis, Two Pointer Technique, Sliding Window Technique, Selection Sort, Bubble Sort

Evaluations

- DSA201.E1
- DSA201.E2
- DSA201.E3
- DSA201.E4
- DSA201.EU

JS201

Advanced & Modern Javascript

Course Details

Prerequisite - JS101, WEB101

Instructor - Swanand & Aditya

Duration - 4 Weeks

Timings - 14:00 - 17:00

Course Topics

Fetch, Promises, OOPS, LLD, Closures, ES6, Modules, Import & Export

Tools & Software

VSCode, GIT

Evaluations

- JS201.E1
- JS201.E2
- JS201.E3
- JS201.E4

RCT101

React Essentials

Course Details

Prerequisite - JS101, WEB101, JS201

Instructor - Ritesh

Duration - 4 Weeks

Timings - 14:00 - 17:00

Course Topics

State, Props, Events, Styled Components, Routing, Redux

Tools & Software

VSCode, GIT, Node, NPM

Evaluations

- RCT101.E1
- RCT101.E2
- RCT101.E3
- RCT101.E4

DSA211

Data Structures & Algorithms - Pupil Booster

Course Details

Prerequisite - DSA201

Instructor - Venu

Duration - 4 Weeks

Timings - 09:30 - 11:30

Course Topics

Revisit - Key-Value Pairs, Complexity Analysis, Two Pointer Technique, Sliding Window Technique, Selection Sort, Bubble Sort

Evaluations

- DSA211.E1
- DSA211.E2
- DSA211.E3
- DSA211.E4
- DSA211.EU

DSA301

Data Structures & Algorithms - Specialist

Course Details

Prerequisite - DSA201

Instructor - Aishwarya

Duration - 4 Weeks

Timings - 09:30 - 11:30

Course Topics

Stacks, Queues, Linked Lists

Evaluations

- DSA301.E1
- DSA301.E2
- DSA301.E3
- DSA301.E4
- DSA301.EU

RCT121

React Booster

Course Details

Prerequisite - RCT101

Instructor - Albert & Santhi

Duration - 4 Weeks

Timings - 14:00 - 17:00

Course Topics

React Revisit, React UI Libraries,

Tools & Software

VSCode, GIT, Node, NPM

Evaluations

- RCT121.E1
- RCT121.E2
- RCT121.E3
- RCT121.E4

DSA311

Data Structures & Algorithms - Specialist Booster

Course Details

Prerequisite - DSA301

Instructor - Ankush

Duration - 4 Weeks

Timings - 09:30 - 11:30

Course Topics

Revisit - Stacks, Queues, Linked Lists

Evaluations

- DSA311.E1
- DSA311.E2
- DSA311.E3
- DSA311.E4
- DSA311.EU

DSA401

Data Structures & Algorithms - Expert

Course Details

Prerequisite - DSA401

Instructor - Akshay

Duration - 4 Weeks

Timings - 09:30 - 11:30

Course Topics

Backtracking, Merge Sort, Quick Sort, Binary Search

Evaluations

- DSA401.E1
- DSA401.E2
- DSA401.E3
- DSA401.E4
- DSA401.EU

RCT201

React Advanced

Course Details

Prerequisite - RCT101

Instructor - Prabhanjan

Duration - 2 Weeks

Timings - 09:30 - 13:00

Course Topics

React Optimisation, Testing, Cypress, Typescript

Tools & Software

VSCode, GIT, Node, NPM

Evaluations

- RCT201.E1
- RCT201.E2

NEM101

Node Express Mongo Introduction

Course Details

Prerequisite - RCT101/RCT121/RCT201

Instructor - Prabhanjan

Duration - 2 Weeks

Timings - 09:30 - 13:00

Course Topics

Node, Express, MongoDB

Tools & Software

VSCode, GIT, Node, NPM, MongoDB

Evaluations

- NEM101.E1
- NEM101.E2

DSA421.M

Data Structures & Algorithms - Expert Comprehensive

Course Details

Prerequisite - DSA401

Instructor - Venu

Duration - 4 Weeks

Timings - 09:30 - 11:30

Course Topics

Implementation, Arrays, Stacks & Queues, Recursion, Backtracking, Binary Search, Linked List

Evaluations

- DSA421.M.E1
- DSA421.M.E2
- DSA421.M.E3
- DSA421.M.E4
- DSA421.M.EU

DSA421.E

Data Structures & Algorithms - Expert Comprehensive

Course Details

Prerequisite - DSA401

Instructor - Akshay

Duration - 4 Weeks

Timings - 14:00 - 16:00

Course Topics

Implementation, Arrays, Stacks & Queues, Recursion, Backtracking, Binary Search, Linked List

Evaluations

- DSA421.E.E1
- DSA421.E.E2
- DSA421.E.E3
- DSA421.E.E4
- DSA421.E.EU

DSA621

Data Structures & Algorithms - Master

Course Details

Prerequisite - DSA501

Instructor - Lohit

Duration - 2 Weeks

Timings - 14:00 - 17:00

Course Topics

Graphs, Trees

Evaluations

- DSA621.E1
- DSA621.E2

JA111

Java Comprehensive

Course Details

Prerequisite - JS201

Instructor - Ratan

Duration - 5 Weeks

Timings - 14:00 - 17:00

Course Topics

Java, OOPS, Collections, Packages, SQL Basics

Tools & Software

Java, SQL

Evaluations

- JA111.E1
- JA111.E2
- JA111.E3
- JA111.E4
- JA111.E5

SB101

Spring Boot Essentials

Course Details

Prerequisite - **JA111**

Instructor - **Arjun**

Duration - **3 Weeks**

Timings - **09:30 - 13:00**

Course Topics

Java, OOPS, Collections, Packages, SQL Basics

Tools & Software

Java, SQL

Evaluations

- SB101.E1
- SB101.E2
- SB101.E3

OS101

Operating Systems & System Design Essentials

Course Details

Prerequisite - SB101

Instructor - Arjun

Duration - 2 Weeks

Timings - 09:30 - 13:00

Course Topics

OS Basics, Networking, LLD

Tools & Software

Java, SQL

Evaluations

- OS101.E1
- OS101.E2

DSA 501

Data Structures & Algorithms - Candidate Master

Course Details

Prerequisite - DSA 401

Instructor - Anand

Duration - 4 Weeks

Timings - 14:00 - 17:00

Course Topics

DP, Graphs, Trees

Evaluations

- DSA501.E1
- DSA501.E2
- DSA501.E3
- DSA501.E4
- DSA501.EU

SB201

Spring Boot Project

Course Details

Prerequisite - SB101

Instructor - Ratan

Duration - 2 Weeks

Timings - 09:30 - 13:00