Campus Club Manager — Course Outline

Aug 11 – Sep 22, 2025 • 12 classes • 3 hrs each (≈90 min teach + ≈90 min build)

Phases & Milestones

- Phase 0 – Setup (Class 1): Repo, basic HTML/CSS, starter JS.
- Phase 1 – Foundations (Classes 2–3): Variables/strings/numbers → form, functions
- Phase 2 – Modeling & DOM (Classes 4–5): OOP classes, render from state, add m
- Phase 3 – Lists & UX (Classes 6–7): Loops, search/filter/sort, debounce utilities.
- Phase 4 – Structure & Dates (Classes 8–9): ES modules, dev server, Day.js/nanoid
- Phase 5 – Rules & Persistence (Classes 10–11): RSVP, roles, async/await, json-ser
- Phase 6 – Polish & Demo (Class 12): QA, stretch features, deploy, presentations.

Course Milestones

- M1 (end Class 5): Interactive front-end (add club/member; renders from JS state)
- M2 (end Class 9): Clean module structure; events with dates & IDs.
- M3 (end Class 11): Full CRUD persisted to mock backend; resilient async UX.
- Final (Class 12): Polished app + demo.

Class 1 — Kickoff & Setup

- Date: Mon, Aug 11, 2025
- Lesson: Kickoff & Setup
- Teach: How the web runs JS, DevTools, VS Code, Git basics, HTML/CSS refresher
- Build: index.html, styles.css, app.js scaffold; stub #club-info
- Deliverable: Page loads 'Campus Club Manager'; repo created

Class 2 — Variables, Numbers, Strings

- Date: Thu, Aug 14, 2025
- Lesson: Variables, Numbers, Strings
- Teach: let/const, template literals, basic math
- Build: Seed clubs, compute seats left, render text to page
- Deliverable: Static list with counts from variables/arrays

Class 3 — Booleans, Ifs, Functions (Create Club)

- Date: Mon, Aug 18, 2025
- Lesson: Booleans, If Statements, Functions
- Teach: Truthy/falsy, guards, pure functions
- Build: Create Club form, validation, duplicate-name check; renderClubs(), addClu
- Deliverable: Users can add valid clubs; errors display

Class 4 — OOP: Classes & Composition

- Date: Thu, Aug 21, 2025
- Lesson: OOP: Classes & Composition
- Teach: class, constructor, methods; composition over inheritance
- Build: Club, Member, Event classes; e.g., Club.addMember(), Event.toggleRsvp()
- Deliverable: State changes go through class APIs

Class 5 — DOM Rendering Patterns

- Date: Mon, Aug 25, 2025
- Lesson: DOM Rendering Patterns
- Teach: Query/create, event delegation, render-from-state
- Build: Dynamic club cards; Add Member UI; empty-state
- Deliverable: Members can be added; UI updates without reload

Class 6 — Arrays & Loops (Search/Filter/Sort)

- Date: Thu, Aug 28, 2025
- Lesson: Arrays & Loops (Search/Filter/Sort)
- Teach: map/filter/reduce, for…of, comparator functions
- Build: Search box, filter by category, sort by name/next event
- Deliverable: Live search/filter/sort

(No Class — Labor Day)

- Date: Mon, Sep 1, 2025
- Lesson: Holiday / Buffer
- Note: U.S. Holiday — skip / review / buffer

Class 7 — Advanced Functions (UX Helpers)

- Date: Thu, Sep 4, 2025
- Lesson: Advanced Functions (UX Helpers)
- Teach: Higher-order functions, closures; debounce vs throttle
- Build: Debounce search; small pipe()/compose() utility; tiny controller helpers
- Deliverable: Snappy search; tidy utilities

Class 8 — ES Modules & Dev Server

- Date: Mon, Sep 8, 2025
- Lesson: ES Modules & Dev Server
- Teach: export/import, file boundaries, index barrels, (optional) Vite
- Build: Split into models/, views/, controllers/, store/, ui/
- Deliverable: Same behavior, modular code; dev server running

Class 9 — External Libraries (Dates & IDs) + Ever

- Date: Thu, Sep 11, 2025
- Lesson: Dates & IDs with Libraries + Events
- Teach: Picking libs, Day.js basics, nanoid
- Build: Event form (title/date/desc); 'days until'; unique IDs
- Deliverable: Clubs have events; upcoming vs past clear

Class 10 — OOP Review: Rules, Roles & RSVP

- Date: Mon, Sep 15, 2025
- Lesson: OOP Review: Rules, Roles & RSVP
- Teach: Invariants, capacity checks, method chaining
- Build: RSVP toggles; capacity enforcement; simple roles (admin/member)
- Deliverable: Business rules enforced; UI reflects permissions

Class 11 — Async/Await & Persistence (json-serv

- Date: Thu, Sep 18, 2025
- Lesson: Async/Await & Persistence
- Teach: fetch, promises, async/await, optimistic UI + rollback
- Build: db.json + json-server; api/*.js wrappers; replace in-memory CRUD; loading
- Deliverable: Full CRUD persisted; resilient UX

Class 12 — Polish, Deploy, Demo Day

- Date: Mon, Sep 22, 2025
- Lesson: Polish, Deploy, Demo Day
- Teach: QA checklist, small perf wins, accessibility basics, deployment (GH Pages)
- Build: Delete/edit club; percentage full; empty-state visuals; pagination; rememb
- Deliverable: Deployed app + 3–5 min student demos

Repo Structure (by Class 8+)

```
/public/index.html
/src/
  app.js
  store/index.js
  models/Club.js
  models/Member.js
  models/Event.js
  controllers/clubsController.js
  views/ClubList.js
  views/MemberForm.js
  views/EventForm.js
  ui/Toast.js
  lib/pipe.js
/api/
  clubs.js
  members.js
  events.js
db.json
```

Data Shapes

```
// Club
{ id: "c_123", name: "Coding Club", category: "Tech", capacity: 25, members: ["m_1","m_2"],

// Member
{ id: "m_1", name: "Ava", role: "member" } // or "admin"

// Event
{ id: "e_1", clubId: "c_123", title: "Hack Night", date: "2025-09-10", rsvps: ["m_1","m_2"],
```

Assessment & Checkpoints

- Code Check-ins: tag each class (c01-setup, c03-create-club, c09-events, c11-pers
- Rubric (10 pts each class): 4 pts feature works, 3 pts organization, 2 pts readabil commit quality.
- Milestone demos: 5–10 min at end of Classes 5, 9, 11.

Stretch Ideas

- Dark mode toggle; keyboard focus states.
- CSV export of members/events.
- Hash-based routes (#/clubs/:id).
- Simple unit tests for model methods (Jest).