

Electric Car Class Outline / Curriculum:

I. Introduction & Overview:

Why choose electric?
Hybrids?

II. Choosing the right platform:

Donor vehicle / conversion
Modification of a donor vehicle
Build your own from scratch

III. Parts needed for an electric vehicle:

Motor: A/C vs D/C?
Horsepower
Controllers:
Batteries:
Charger and Electrical System
Transmission or direct drive?
Putting it all together / Diagramming the build-out

IV. Sourcing / Where to find the parts you'll need:

V. Planning your build-out:

Things to think about:
Budgeting
Desired speed
Desired mileage per charge
Efficiency: Weight – the lighter the better
Rolling efficiency:
Aerodynamics / wind drag – the less the better
Rolling resistance – the less the better: Tires
Braking system: stock or vacuum assist?

VI. Road Testing/ Tuning:

First Road Test:
Tuning The Controller
Adjusting the throttle
Monitoring Amperes
Final Adjustments

VII. Driving Your EV

Hypermiling: the act of driving using techniques that maximize fuel economy.
Driving and braking for max range and power.