

Homeschool Co-op Course Syllabus for Auto Upkeep

Course Description:

This course is intended to provide each student with the knowledge to make economical decisions and take preventative measures to enhance the overall satisfaction of being an automotive consumer. The class discussions and lab activities provide the fundamental knowledge and experience in owning and maintaining an automobile.

Credit:

½ Credit = 67.5 hours of instruction

1 Credit = 135 hours of instruction

Note to Instructor: Auto Upkeep can be either a ½ credit or 1 credit course. The following course outline (see page 3) covers 135 hours of instruction (18 weeks x 1.5 hours a day x 5 days a week). If you would like to run this as a ½ credit course, shorten the number of hours by reducing or eliminating the number of lab activities completed depending on your facility and available tools. Some activities can also be completed more than once to extend hours of instruction, enhancing the student's skill set. For example, "Fluid Level Check Activity" could be performed on multiple types of vehicles.

Course Goal:

This course is designed to advance each student's fundamental knowledge and understanding in owning, maintaining, and repairing the automobile.

Intended Competencies/Skills:

Please see the Excel spreadsheet titled *Auto Upkeep Competency Profile* on the Homeschool Resource CD.

Content Delivery Method:

This course includes in-class activities and lab/shop activities. In-class activities include lectures, discussions, student presentations, and research. Lab/shop activities include completing designated procedures that involve inspection, replacement, and identification of automotive components. During lab/shop activities students will apply knowledge obtained from in-class discussions and readings to further advance their understanding of the automobile.

Course Evaluation:

Students will be evaluated on the achievement of the tasks/skills as listed on the competency profile, study questions, lab activity participation, daily reflection logs, and exams.

Grade Distribution/Weight
 20% Competency Profile
 20% Study Questions
 20% Lab Activities
 20% Daily Reflection Logs
 20% Exams (Written and Practical)

Grades:

Assessments and assignments will be recorded in the grade book on a 4 point scale and averaged together within the main categories (competency profile, study questions, lab activities, daily reflection logs, and exams) to establish a final grade.

4.0 = A	2.7 = B-	1.3 = D+
3.7 = A-	2.3 = C+	1.0 = D
3.3 = B+	2.0 = C	0.7 = D-
3.0 = B	1.7 = C-	0 = F

Textbook:

Gray, M.E., & Gray, L.E. (2007). *Auto Upkeep: Basic Car Care, Maintenance, and Repair* (2nd Edition). Ozark, MO: Rolling Hills Publishing.

ISBN: 978-0-9740792-1-9 Paperback/978-0-9740792-6-4 Hardcover

Available at www.AutoUpkeep.com/kit

Workbook:

Gray, M.E., & Gray, L.E. (2007). *Auto Upkeep: Basic Car Care, Maintenance, and Repair Workbook* (2nd Edition). Ozark, MO: Rolling Hills Publishing.

ISBN: 978-0-9740792-2-6 Workbook.

Available at www.AutoUpkeep.com/kit

Safety:

It is essential that each student follow all safety guidelines, rules, and procedures as discussed in class and demonstrated in the lab/shop. Safety glasses are required for all lab activities.

**Course Outline:
18 Weeks**

<i>Week</i>	<i>Day</i>	<i>Topic</i>	<i>Read/ Discuss</i>	<i>Assignment/Lab/Log Test</i>
1	1	Introduction to the Class Course Syllabus Tour of Area		Daily Reflection Log
1	2	Chapter 1 Introduction and How Cars Work	Pages 8-11	Daily Reflection Log
1	3	Chapter 1 Introduction and How Cars Work	Pages 12-15	Study Questions Explore Web Links Daily Reflection Log
1	4	Chapter 1 Introduction and How Cars Work		Car Identification Activity Daily Reflection Log
1	5	Chapter 1 Introduction and How Cars Work		Review Chapter Test Daily Reflection Log
2	6	Chapter 2 Buying an Automobile	Pages 16-18	Daily Reflection Log
2	7	Chapter 2 Buying an Automobile	Pages 19-21	Study Questions Explore Web Links Daily Reflection Log
2	8	Chapter 2 Buying an Automobile		Buying an Automobile Activity Daily Reflection Log
2	9	Chapter 2 Buying an Automobile		Review Chapter Test Daily Reflection Log
2	10	Chapter 3 Automotive Expenses	Pages 22-25	Daily Reflection Log
3	11	Chapter 3 Automotive Expenses	Pages 26-27	Study Questions Explore Web Links Daily Reflection Log
3	12	Chapter 3 Automotive Expenses		Automotive Expenses Activity Daily Reflection Log
3	13	Chapter 3 Automotive Expenses		Review Chapter Test Daily Reflection Log
3	14	Chapter 4 Repair Facilities	Pages 28-31	Daily Reflection Log
3	15	Chapter 4 Repair Facilities	Pages 32-33	Study Questions Explore Web Links Daily Reflection Log
4	16	Chapter 4 Repair Facilities		Repair Facilities Activity Daily Reflection Log
4	17	Chapter 4 Repair Facilities		Review Chapter Test Daily Reflection Log
4	18	Chapter 5 Safety Around the Automobile	Pages 34-38	Daily Reflection Log
4	19	Chapter 5 Safety Around the Automobile	Pages 39-43	Study Questions Explore Web Links Daily Reflection Log

4	20	Chapter 5 Safety Around the Automobile		Automotive Safety Activity Daily Reflection Log
5	21	Chapter 5 Safety Around the Automobile		Review Chapter Test Daily Reflection Log
5	22	Chapter 6 Basic Tools	Pages 44-51	Daily Reflection Log
5	23	Chapter 6 Basic Tools	Pages 52-57	Study Questions Explore Web Links Daily Reflection Log
5	24	Chapter 6 Basic Tools		Basic Tools Activity Daily Reflection Log
5	25	Chapter 6 Basic Tools		Review Chapter Test Daily Reflection Log
6	26	Chapter 7 Auto Care and Cleaning	Pages 58-63	Daily Reflection Log
6	27	Chapter 7 Auto Care and Cleaning	Pages 64-65	Study Questions Explore Web Links Daily Reflection Log
6	28	Chapter 7 Auto Care and Cleaning		Interior Cleaning Activity Exterior Cleaning Activity Daily Reflection Log
6	29	Chapter 7 Auto Care and Cleaning		Waxing Activity Daily Reflection Log
6	30	Chapter 7 Auto Care and Cleaning		Review Chapter Test Daily Reflection Log
7	31	Chapter 8 Fluid Level Check	Pages 66-69	Daily Reflection Log
7	32	Chapter 8 Fluid Level Check	Pages 70-73	Study Questions Explore Web Links
7	33	Chapter 8 Fluid Level Check		Fluid Level Check Activity Daily Reflection Log
7	34	Chapter 8 Fluid Level Check		Review Chapter Test Daily Reflection Log
7	35	Chapter 9 Electrical System	Pages 74-79	Daily Reflection Log
8	36	Chapter 9 Electrical System	Pages 80-83	Study Questions Explore Web Links Daily Reflection Log
8	37	Chapter 9 Electrical System		Battery Activity Daily Reflection Log
8	38	Chapter 9 Electrical System		Charging Activity Starting Activity Daily Reflection Log
8	39	Chapter 9 Electrical System		Review Chapter Test Daily Reflection Log

8	40	Chapter 10 Lubrication System	Pages 84-87	Daily Reflection Log
9	41	Chapter 10 Lubrication System	Pages 88-89	Study Questions Explore Web Links Daily Reflection Log
9	42	Chapter 10 Lubrication System		Oil and Filter Change Activity Daily Reflection Log
9	43	Chapter 10 Lubrication System		Review Chapter Test Daily Reflection Log
9	44	Careers Paths Chapters 1-10 Review Chapters 1-10 for Mid-Term Exam		Discuss Career Paths Review for Mid-Term Exam Daily Reflection Log
9	45	Mid-Term Exam		Mid-Term Exam Daily Reflection Log
10	46	Chapter 11 Fuel System	Pages 90-94	Daily Reflection Log
10	47	Chapter 11 Fuel System	Pages 95-99	Study Questions Explore Web Links Daily Reflection Log
10	48	Chapter 11 Fuel System		Fuel System Activity Daily Reflection Log
10	49	Chapter 11 Fuel System		Review Chapter Test Daily Reflection Log
10	50	Chapter 12 Cooling System and Climate Control	Pages 100-105	Daily Reflection Log
11	51	Chapter 12 Cooling System and Climate Control	Pages 106-109	Study Questions Explore Web Links Daily Reflection Log
11	52	Chapter 12 Cooling System and Climate Control		Air Conditioning Activity Cabin Air Filter Activity Daily Reflection Log
11	53	Chapter 12 Cooling System and Climate Control		Cooling System Activity Daily Reflection Log
11	54	Chapter 12 Cooling System and Climate Control		Review Chapter Test Daily Reflection Log
11	55	Chapter 13 Ignition System	Pages 110-113	Daily Reflection Log
12	56	Chapter 13 Ignition System	Pages 114-115	Study Questions Explore Web Links Daily Reflection Log
12	57	Chapter 13 Ignition System		Ignition System Activity Daily Reflection Log
12	58	Chapter 13 Ignition System		Review Chapter Test Daily Reflection Log
12	59	Chapter 14 Suspension, Steering, and Tires	Pages 116-119	Daily Reflection Log
12	60	Chapter 14 Suspension, Steering, and Tires	Pages 120-123	Study Questions Explore Web Links Daily Reflection Log

13	61	Chapter 14 Suspension, Steering, and Tires		Suspension and Steering Activity Daily Reflection Log
13	62	Chapter 14 Suspension, Steering, and Tires		Tire Inspection and Rotation Activity Daily Reflection Log
13	63	Chapter 14 Suspension, Steering, and Tires		Review Chapter Test Daily Reflection Log
13	64	Chapter 15 Braking System	Pages 124-127	Daily Reflection Log
13	65	Chapter 15 Braking System	Pages 128-129	Study Questions Explore Web Links Daily Reflection Log
14	66	Chapter 15 Braking System		Brake Inspection Activity Daily Reflection Log
14	67	Chapter 15 Braking System		Review Chapter Test Daily Reflection Log
14	68	Chapter 16 Drivetrain	Pages 130-133	Daily Reflection Log
14	69	Chapter 16 Drivetrain	Pages 134-135	Study Questions Explore Web Links Daily Reflection Log
14	70	Chapter 16 Drivetrain		Drivetrain Activity Daily Reflection Log
15	71	Chapter 16 Drivetrain		Review Chapter Test Daily Reflection Log
15	72	Chapter 17 Exhaust and Emission System	Pages 136-139	Daily Reflection Log
15	73	Chapter 17 Exhaust and Emission System	Pages 140-141	Study Questions Explore Web Links Daily Reflection Log
15	74	Chapter 17 Exhaust and Emission System		Exhaust and Emission Activity Daily Reflection Log
15	75	Chapter 17 Exhaust and Emission System		Review Chapter Test Daily Reflection Log
16	76	Chapter 18 Alternative Fuels and Designs	Pages 142-147	Daily Reflection Log
16	77	Chapter 18 Alternative Fuels and Designs	Pages 148-151	Study Questions Explore Web Links Daily Reflection Log
16	78	Chapter 18 Alternative Fuels and Designs		Payback Period Activity Daily Reflection Log
16	79	Chapter 18 Alternative Fuels and Designs		Review Chapter Test Daily Reflection Log
16	80	Chapter 19 Automotive Accessories	Pages 152-157	Daily Reflection Log
17	81	Chapter 19 Automotive Accessories	Pages 158-163	Study Questions Explore Web Links Daily Reflection Log
17	82	Chapter 19 Automotive Accessories		Automotive Accessories Activity Daily Reflection Log

17	83	Chapter 19 Automotive Accessories		Review Chapter Test Daily Reflection Log
17	84	Chapter 20 Common Problems and Roadside Emergencies	Pages 164-169	Daily Reflection Log
17	85	Chapter 20 Common Problems and Roadside Emergencies	Pages 170-177	Study Questions Explore Web Links Daily Reflection Log
18	86	Chapter 20 Common Problems and Roadside Emergencies		Changing a Flat Tire Activity Replacing Wipers Activity Daily Reflection Log
18	87	Chapter 20 Common Problems and Roadside Emergencies		Jump-Starting Activity Lighting Activity Daily Reflection Log
18	88	Chapter 20 Common Problems and Roadside Emergencies		Review Chapter Test Daily Reflection Log
18	89	Careers Paths Chapters 11-20 Review for Final Exam		Discuss Career Paths Review for Final Exam Daily Reflection Log
18	90	Final Exam		Final Exam Daily Reflection Log