United Flight Services
Private Pilot Syllabus

Materials Needed:
FAR/AIM
Pilot's Operating Handbook
Airplane Flying Handbook
Pilots Handbook of Aeronautical Knowledge
Private Pilot Oral Guide and PTS

Optional Materials:
Rod Machado Private Pilot Handbook

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
<th>Ground</th>
<th>Dual</th>
<th>Solo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Discovering Flight</td>
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<td>2</td>
<td>Preflight, PIC, Aerodynamics</td>
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<td>Basic Maneuvers, Stability</td>
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<td>Patterns, POH &amp; Systems, Collision Avoidance</td>
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<td>Go/No-Go, Aeromedical Factors</td>
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<td>Spins, Emergencies, Pre-Solo</td>
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<td>Instruments</td>
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<td>FAR's, Endorsements, Solo</td>
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<td>Sectionals, Maneuvers, Solo</td>
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**Student will fly solo for between the next 5 stages**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
<th>Ground</th>
<th>Dual</th>
<th>Solo</th>
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<tbody>
<tr>
<td>13</td>
<td>Short Field T/O and Ldg, Publications</td>
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<td>14</td>
<td>Soft Field T/O and Ldg, Class D Operations</td>
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<td>Class C Operations, Hood Work</td>
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<td>1.5</td>
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<td>16</td>
<td>Flight Planning, Weather</td>
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<td>Weight &amp; Balance, Weather Briefing</td>
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<td>2</td>
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<td>18</td>
<td>Flight Plan, Solo Xcountry Endorsement</td>
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<td>19</td>
<td>Night Operations</td>
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<td>2</td>
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<tr>
<td>20</td>
<td>Flight Plan, Private Privileges &amp; Limitations</td>
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<td>21</td>
<td>PTS, Oral review</td>
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<td>1.5</td>
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Total Estimated Time: 20 25 15
<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
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<tbody>
<tr>
<td><strong>Reading</strong></td>
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<tr>
<td>FAR/AIM 91</td>
<td>Airplane Flying Handbook Ch3 (3-1 to 3-4, 3-10)</td>
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<tr>
<td>Airplane Flying Handbook Ch2</td>
<td>Pilots Hndbk of Aero Knowledge Ch1 (1-1 to 1-18)</td>
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<tr>
<td>Pilots Hndbk of Aero Knowledge Ch6 (6-14)</td>
<td>Pilot’s Operating Handbook Sect4</td>
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<td>Pilot’s Operating Handbook Sect1</td>
<td>Rod Machado B1-6</td>
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<table>
<thead>
<tr>
<th>Ground - 1 hr</th>
<th>Ground - 1 hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to flight training.</td>
<td>Aircraft documents: maintenance and inspections.</td>
</tr>
<tr>
<td>Aircraft preflight.</td>
<td>Aircraft preflight.</td>
</tr>
<tr>
<td>Collision avoidance and right-of-way.</td>
<td>Postflight procedures.</td>
</tr>
<tr>
<td>Positive exchange of flight controls.</td>
<td>Takeoffs and climbs.</td>
</tr>
<tr>
<td>Cockpit management.</td>
<td>Forces acting on the airplane in flight.</td>
</tr>
<tr>
<td><strong>Dual Flight - 1 hr</strong></td>
<td>Responsibility of the Pilot in Command (PIC).</td>
</tr>
<tr>
<td>Checklist familiarization.</td>
<td><strong>Dual Flight - 1 hr</strong></td>
</tr>
<tr>
<td>Taxi and runup.</td>
<td>Student makes takeoff.</td>
</tr>
<tr>
<td>Demonstrate takeoff procedure.</td>
<td>Climb to 3000’, 30° bank turns.</td>
</tr>
<tr>
<td>Demonstrate flight control functions: ailerons (roll), power (climb/descend), elevator (airspeed), trim, and flaps.</td>
<td>Demonstrate climb/level off and descent/level off (straight ahead and turning).</td>
</tr>
<tr>
<td>5-10 minutes free time.</td>
<td>Demonstrate rudder coordination.</td>
</tr>
<tr>
<td>Demonstrate traffic pattern.</td>
<td>5-10 minutes free time.</td>
</tr>
<tr>
<td>Demonstrate landing.</td>
<td>Power off glide - trim.</td>
</tr>
<tr>
<td>Student makes first unassisted takeoff.</td>
<td>Follow river 600-800’.</td>
</tr>
<tr>
<td>Student controls power for landing.</td>
<td>2-3 landings.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Stage 4</td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Reading</strong></td>
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</tr>
<tr>
<td>Airplane Flying Handbook Ch 4 and Ch 5 (5-1)</td>
<td>FAR/AIM 4-3</td>
</tr>
<tr>
<td>Pilots Hndbk of Aero Knowledge Ch 1 (1-9 to 1-17)</td>
<td>Airplane Flying Handbook Ch 5 (5-2), Ch 6 (6-1), Ch 7 (7-1 to 7-3, 7-11)</td>
</tr>
<tr>
<td>Rod Machado B 34-36</td>
<td>Pilot’s Operating Handbook Sect 3</td>
</tr>
<tr>
<td>Rod Machado B 14-19, G 7-15</td>
<td></td>
</tr>
<tr>
<td><strong>Ground - 1 hr</strong></td>
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</tr>
<tr>
<td>Basic flight maneuvers.</td>
<td>Stalls</td>
</tr>
<tr>
<td>Slow flight.</td>
<td>Ground reference maneuvers.</td>
</tr>
<tr>
<td>Torque.</td>
<td>Load factor.</td>
</tr>
<tr>
<td>Airplane stability.</td>
<td>Introduce to radio.</td>
</tr>
<tr>
<td>Supervise pre-flight.</td>
<td>Introduce to traffic patterns.</td>
</tr>
<tr>
<td>Situational Awareness</td>
<td>Emergency procedures</td>
</tr>
<tr>
<td><strong>Dual Flight - 1 hr</strong></td>
<td><strong>Dual Flight - 1 hr</strong></td>
</tr>
<tr>
<td>Climb to 3,000’ towards Moss Landing.</td>
<td>Student begins use of radio in flight.</td>
</tr>
<tr>
<td>30° bank turns</td>
<td>Introduce to stall orientation and recovery</td>
</tr>
<tr>
<td>Introduce 45° bank turns</td>
<td>Forced landing procedure (MBA).</td>
</tr>
<tr>
<td>Slow flight with and w/o flaps, level and 20-30° bank turns.</td>
<td>Ground reference maneuvers (S turns and turns about a point)</td>
</tr>
<tr>
<td>2-3 landings.</td>
<td>2-3 landings.</td>
</tr>
</tbody>
</table>
Stage 5

Reading
FAR/AIM 4-3
Airplane Flying Handbook Ch8
Pilots Hndbk of Aero Knowledge Ch6 (6-14 to 6-14)
Pilot's Operating Handbook Sect1, 2, 4, and 7
Rod Machado C15-24; G7-15; G24-27; L46-50

Ground - 1 hr
Airport traffic patterns.
Approaches and landings.
POH: general, limitations, normal procedures, airplane and systems
Collision avoidance, windshear avoidance, and wake turbulence avoidance

Dual Flight - 1 hr
45° bank power turns with reversals.
Slow flight.
Approach and departure stall recoveries.
Forced landing.
Ground reference maneuvers.
2-3 landings.

Stage 6

Reading
Airplane Flying Handbook Ch7 (7-8)
Pilots Hndbk of Aero Knowledge Ch2
Rod Machado B14-19; C1-15; N14-15

Ground - 1 hr
Airplanes, engines, and systems.
Slips (forward and side)

Dual Flight - 1 hr
Review turning slow flight.
Review turning stall and recovery.
Introduce skids & slips, forward & side.
Stage 7

**Reading**

FAR/AIM 7-1 and 8-1
Pilots Hndbk of Aero Knowledge Ch2 (2-18 to 2-22), Ch5, and Ch9

**Ground - 1 hr**

Aeronautical decision making.
Aero-medical factors.
Weather

**Dual Flight - 1 hr**

Review stall recovery from slips & skids.
Ground reference maneuvers.

Stage 8

**Reading**

FAR/AIM 61
Airplane Flying Handbook Ch5 (5-11 to 5-12) and Ch12 Review
Pilot's Operating Handbook Sect3
Rod Machado B37

**Ground - 1 hr**

Review spins.
Review emergency operations.
Review pre-solo written.
Review solo requirements.

**Dual Flight - 2 hr**

Left downwind departure and climb to 3,500'
Strange airport entry procedure (South County), 3-4 landings.
Return to Watsonville - introduce basic instrument procedures (turns, descents, & climbs)
Spin recovery - demonstrate, then student completes 3 turn spin.
Forced landing from 3,000' to WVI.

**NOTE - medical exam must be completed in next 2 stages.**
Stage 9

Reading
Airplane Flying Handbook  Ch9 and Ch11
Pilots Hndbk of Aero Knowledge Ch3
Rod Machado E1-36

Ground - 1 hr
Flight instruments.
Flight by reference to instruments.
Schedule stage check.

Dual Flight - 1 hr
4 engine failures in traffic pattern.
2 go-arounds.
2 electrical failures in traffic pattern.

Stage 10

First Supervised Solo!

Ground - 1 hr
Review records & compliance w/ FARs.
Review endorsements.

Dual - .5 hr & Solo Flight - .5 hr
3 dual takeoffs & landings - taxi-backs.
3 solo takeoffs & landings - taxi-backs.

COMPLETE PRE SOLO STAGE CHECK BEFORE NEXT STAGE!
Stage 11
Second Supervised Solo!

Dual - 1 hr & Solo Flight - .5 hr
2 dual takeoffs & landings.
1 go-around.
1 engine failure, laning on Rwy 26.
1 electrical failure.
5 solo touch and go landings.

Stage 12
Third Supervised Solo!

Reading
Pilots Hndbk of Aero Knowledge Ch7 and Ch8 (8-1 to 8-5)

Ground - 1 hr
Introduce sectionals.
Review local training area.
Review first 10 hours of student solo training. Give student all maneuvers for first 10 ours of local solo practice.

Dual - 1 hr & Solo Flight - 1 hr
Student makes proper entry into traffic pattern.
1 solo touch and go landing.
30mins solo time in local training area.

NOTE - student flies solo between next 5 stages.
<table>
<thead>
<tr>
<th>Stage 13</th>
<th>Stage 14</th>
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<tbody>
<tr>
<td><strong>Reading</strong></td>
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<tr>
<td>Airplane Flying Handbook Ch3 (3-6) and Ch7 (7-14)</td>
<td>FAR/AIM 3-2</td>
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<tr>
<td>Pilots Hndbk of Aero Knowledge Ch7 and Ch8 (8-1 to 8-5)</td>
<td>Airplane Flying Handbook Ch3 (3-7) and Ch7 (7-15)</td>
</tr>
<tr>
<td>Rod Machado O1-26; Ch J</td>
<td>Rod Machado L19-21</td>
</tr>
<tr>
<td><strong>Ground - 1 hr</strong></td>
<td><strong>Ground - 1 hr</strong></td>
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<tr>
<td>Short field takeoffs and landings.</td>
<td>Soft field takeoffs and landings.</td>
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<tr>
<td>Publications: AFD, sectionals.</td>
<td>Class D airspace - SNS.</td>
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<tr>
<td></td>
<td>Airport operations.</td>
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<tr>
<td><strong>Dual Flight - 1 hr</strong></td>
<td><strong>Dual Flight - 2 hr</strong></td>
</tr>
<tr>
<td>Introduce short field takeoffs &amp; landings.</td>
<td>.5 hour IFR hood.</td>
</tr>
<tr>
<td>Clearing turns.</td>
<td>Frazier Lake - 2 soft field takeoffs &amp; landings.</td>
</tr>
<tr>
<td>Medium and steep turns.</td>
<td>Introduce to Class D - SNS.</td>
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<tr>
<td>Slow flight.</td>
<td>Introduce VOR tracking back to WVI</td>
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<tr>
<td>Power off stall straight ahead.</td>
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<tr>
<td>1-2 landings.</td>
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</table>
Stage 15

Ground - 1 hr
Radar and air traffic control.
Radio procedures.
Lost procedures and diversion.

Dual Flight - 1 hr
Introduce to Class C - MRY.
Short & soft field takeoffs and landings.
IFR hood work.

Stage 16

Night cross-country
WVI-MOD/OAK-overfly SJC-WVI

Reading
FAR/AIM 7-1
Airplane Flying Handbook Ch10
Pilots Hndbk of Aero Knowledge Ch5, Ch6 (6-4 to 6-8), and Ch8
Pilots Operating Handbook Sect5
Rod Machado I22-24; Ch H; M1-38; Q8-10; Ch P

Ground - 1 hr
Flight plan, weather briefing.
Aircraft performance charts.
Night operations.

Dual Flight - 1 hr
Flight following.
VFR navigation.
1 hour hood (MOD-SJC)
Lost procedure using VOR's, MRY Approach radar.
Stage 17

Dual cross-country
WVI-SNS-PXN-FAT

Reading
Airplane Flying Handbook Ch5 (5-14)
Pilots Hndbk of Aero Knowledge Ch4
Pilot's Operating Handbook Sect5 and 6

Ground - 1 hr
Weight and balance.
Weather briefing.
Flight plan (airplane performance, weight & balance, wind correction)

Dual Flight - 2 hr
True air and ground speed calculations.
Navigation by pilotage, dead-reckoning, and VOR.
Flight following.
Lunch in FAT.
Student plans FAT-Gustine (don't land)-MOD with no assistance from instructor.
Student completes flight on his/her own - instructor only observes for later critique. If successful, then student is ready for solo cross-country.
Return to WVI via MOD 210° radial; .5 hour IFR.
Pull hood - student has 15 minutes to find WVI and land.

COMPLETE PRE SOLO X-COUNTRY STAGE CHECK BEFORE NEXT STAGE!

Stage 18

1st Solo cross-country
WVI-PRB-SNS/MRY-WVI

Ground - 1 hr
Review flight plan.
Solo cross-country endorsements.

Dual Flight - 2 hr
WVI-PRB-SNS/MRY/WVI
**Stage 19**

Complete night training  
(2 hours, 10 landings)

**Ground - 1 hr**
Review night operations.

**Dual Flight - 2 hr**
Takeoff and climb to 4,500' towards Santa Cruz  
45° bank turns, 360° in each direction.  
Stall recovery.  
.2 hours hood time, unusual attitude recoveries.  
Return to WVI without help.  
Complete landings, last landing with complete electrical failure.

**Stage 20**

2nd Solo cross-country (150nm)  
WVI-SCK-MER-WVI

**Reading**
FAR/AIM 61, 91

**Ground - 1 hr**
Review flight plan, systems, aerodynamics.  
Private pilot privileges and limitations.

**Solo Flight - 3 hr**
WVI-SCK-MER-WVI

COMPLETE PRE CHECKRIDE STAGE CHECK!

**Stage 21**

Ground - 1 hr
Review PTS and POH.  
Review for oral exam.

**Dual Flight - 1.5 hr**
Prep for checkride.

COMPLETE PAPERWORK AND REVIEW WITH EXAMINER.