

Date	QTY	Order Type	Deposit Paid (USD)	Full Course Fees Owed (USD)	Eventbrite Fees (USD)	CC Processing (USD)	Gross Totals	Attendee Status
Apr 2, 2012	1	Free Order	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	Attending
Apr 2, 2012	1	Free Order	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	Attending
Apr 2, 2012	1	Free Order	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	DROPPED OUT
Apr 3, 2012	1	Free Order	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	DROPPED OUT
Apr 5, 2012	1	Free Order	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	Attending
Apr 5, 2012	1	Free Order	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	Attending
Apr 8, 2012	1	Free Order	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	DROPPED OUT
Apr 11, 2012	1	Eventbrite Completed	\$50.00	\$475.00	\$2.24	\$1.50	\$521.26	Attending
Apr 11, 2012	1	Eventbrite Completed	\$50.00	\$0.00	\$2.24	\$1.50	\$46.26	DROPPED OUT
Apr 12, 2012	1	Free Order	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	Attending
Apr 16, 2012	1	Free Order	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	DROPPED OUT
Apr 19, 2012	1	Eventbrite Completed	\$50.00	\$475.00	\$2.24	\$1.50	\$521.26	Attending
Apr 19, 2012	1	Eventbrite Completed	\$50.00	\$0.00	\$2.24	\$1.50	\$46.26	DROPPED OUT
Apr 24, 2012	1	Eventbrite Completed	\$50.00	\$0.00	\$2.24	\$1.50	\$46.26	DROPPED OUT
May 22, 2012	1	Eventbrite Completed	\$50.00	\$0.00	\$2.24	\$1.50	\$46.26	DROPPED OUT
Jun 12, 2012	1	Eventbrite Completed	\$50.00	\$0.00	\$2.24	\$1.50	\$46.26	DROPPED OUT
Jun 22, 2012	1	Eventbrite Completed	\$50.00	\$475.00	\$2.24	\$1.50	\$521.26	Attending
Jun 27, 2012	1	Free Order	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	Attending
Jul 3, 2012	1	Eventbrite Completed	\$50.00	\$475.00	\$2.24	\$1.50	\$521.26	Attending
Jul 3, 2012	1	Eventbrite Completed	\$50.00	\$225.00	\$2.24	\$1.50	\$271.26	DROPPED OUT
Jul 31, 2012	1	Eventbrite Completed	\$50.00	\$475.00	\$2.24	\$1.50	\$521.26	Attending
Aug 9, 2012	1	Eventbrite Completed	\$50.00	\$475.00	\$2.24	\$1.50	\$521.26	Attending
Aug 10, 2012	1	Eventbrite Completed	\$50.00	\$475.00	\$2.24	\$1.50	\$521.26	Attending
Aug 16, 2012	1	Eventbrite Completed	\$50.00	\$475.00	\$2.24	\$1.50	\$521.26	Attending
	1		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	Attending
			\$700.00	\$4,025.00	\$31.36	\$21.00	\$4,672.64	

Dietary Preferences	Food Allergies: (Please list any food allergies or specific dietary requirements in the field below)	Food reminder	Camping
No Preference (omnivore)		Accepted	I do not wish to camp
No Preference (omnivore)		Accepted	I do not wish to camp
No Preference (omnivore)		Accepted	I do not wish to camp
No Preference (omnivore)		Accepted	I do not wish to camp
No Preference (omnivore)		Accepted	I do not wish to camp
No Preference (omnivore)		Accepted	I do not wish to camp
Vegetarian		Accepted	I do not wish to camp
No Preference (omnivore)		Accepted	I do not wish to camp
No Preference (omnivore)		Accepted	0
No Preference (omnivore)	Local food is preferred	Accepted	I wish to camp for an extra cost of \$10 per night
No Preference (omnivore)		Accepted	I do not wish to camp
No Preference (omnivore)		Accepted	I wish to camp for an extra cost of \$10 per night
No Preference (omnivore)		Accepted	I wish to camp for an extra cost of \$10 per night
Vegan	While I prefer vegan, I can be flexible regarding eggs,	Accepted	I do not wish to camp
No Preference (omnivore)		Accepted	0
Vegetarian		Accepted	I do not wish to camp
Gluten Free	i prefer gluten free when available, but have no dietary	Accepted	I do not wish to camp
No Preference (omnivore)	I used to have a gluten sensitivity but I think I cured it	Accepted	I do not wish to camp
No Preference (omnivore)		Accepted	I wish to camp for an extra cost of \$10 per night
No Preference (omnivore)		Accepted	0
No Preference (omnivore)		Accepted	I wish to camp for an extra cost of \$10 per night
Vegetarian		Accepted	I do not wish to camp
Gluten Free		Accepted	I wish to camp for an extra cost of \$10 per night
No Preference (omnivore)		Accepted	I do not wish to camp

Income	Amount	Expenses	Cost	Payments	Paid
Check	1425	CF Hosting	\$2,000.00	Materials - Dani	\$220.00
Cash	2605	Flight	\$1,705.70	Creation Flame	\$2,000.00
Eventbrite	647.64	Materials	\$445.72	Beth	\$365.00
		Printing	\$79.37	Printing	\$79.37
		Food	\$0.00	Flight	\$1,705.70
		Beth	\$500.00	Materials	\$225.72
		Chow	\$0.00		
Totals	4677.64	Totals	\$4,730.79	0	\$4,595.79

Time	Min	Schedule	Activity	Learning Outcomes	Materials	Setting & Preparations	Process	Teaching Notes
7:30 - 8:00 AM	30	Breakfast	Light Breakfast	Students will feel nourished with local, organic and fair traded foods.	Fruit, Juice, Toast, Cereal, Coffee, Tea, etc., Plates, bowls, utensils, napkins, etc...	Arrange a table with tasty bits and serving utensils. A sign that says PLEASE WASH UP AFTER YOURSELF!	Nourish your body!	
8:00 - 9:00 AM	60	Hands-on	Registration (time for mingling)	Students will have started to forge relationships with fellow students. Students be signed in, fully paid, have a name tag, and be ready to start the course.	Attendee list, registration table, supporters info...	Table arranged with registration information, handouts and supporters info.	Sign-in. Pay remaining course fees. Mingle and meet new friends	
9:00 - 9:30 AM	30	Review	Housekeeping	Students will have a clear understanding of where the bathrooms are, where the first aid is located and any other important housekeeping info. Students will also be oriented to the schedule of the course and the over all flow of each day as well as be introduced to the structure, format and goals of the course.	Daily Schedule handout	Arrange room with chairs in a large circle.	- Hung Naam "water room" (you don't have to ask to go) - Course & Daily Schedules (handout) - Meals & Breaks (Donations appreciated) - Morning hands-on (lend a hand throughout the day with small stuff) - Safety (first aid, fire extinguisher, etc...) - Structure, format and goals of course.	
9:30 - 11:00 AM	90	Session A	Ice Breaker - two circles	All students will have met each other.	Ball, Post-it Notes, Markers, whiteboard name tags	Keypoint position is marked on the ground. Everyone stands and forms two circles (inner and outer)	To the person in front of you, say your name and an animal or plant that best describes your current mood. After greeting, everyone takes a step to their right. At one point in the circle (keypoint) the two people swap circles allowing everyone the opportunity to meet everyone else.	Expression name circle.
	60	A - 2	Individual introductions	Students will begin to get to know each other and reinforce the memory of each other's names.	Ball	Sitting in the large circle with name tags visible.	Say your name, a little bit about yourself and what permaculture means to you. Then make eye contact with the next person, say their name and, if you can remember, what their animal or plant was before tossing the ball. Try to keep your intro to 1 minute	
		A - 3	Thinking and learning as a Community. (learning agreement exercise)	Students will have a clear understanding of their individual goals and desired outcomes for the course. Students will also recognize common group goals as well as the goals of the course facilitators.	Post-it Notes, Markers	Groups of 2. Hand out 3 post-its to every other person. Two of one color and the third a different color. After intro to section, tell the person with the post-its to turn to their right and everybody else turn to their left. On white board, myself and other co-teachers discuss OUR goals for teaching course. Leave room on white board for post-it notes	First 3 minutes: Person with the post-its talks about their top 3-5 goals for the course, what do they most want to get out of the course or what are they hoping to learn. The other person listens, maybe asks clarifying questions to help the person reach the root of their goals for the course. Second 5 minutes: Roles swap Third 5 minutes: Discuss shared goals. Goals that you might have both mentioned or something you heard the other person say that you agree with. Fourth 5 minutes: On the two post-its of the same color, list the most important personal goal (WRITE IN LARGE PRINT). One for each individual. On the third post-it write the one shared goal that is most important. All three your-its can have the same thing on them if the goals are that important and agreed upon) Fifth 5 minutes: All post-its put on whiteboard. Goals are organized, observed and discussed. Is there anything that stands out? Are there any questions that arose? What surprises you? What doesn't surprise you at all? (IMPORTANT: we want to respect each other's goals and our reasons for being here. This means that we should be open to the fact that others could be here for entirely different reasons than us, and that is ok!) Rest and relax	
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water			
11:30 - 1:00 PM	90	Session B	Host Location Introduction	Students will feel informed about the history and purpose of the host organization.	None		Wes describes Creation Flame	
	10	B - 1	Creation Flame intro by Wes.					
	40	B - 2	Site tour (exercise your skills of observation engaging all senses)	Students will become acquainted with the host space. Students will begin to exercise their observation skills.	Eyes, ears, nose, taste, feel	Guided site tour	Guided site tour, write down any interesting observations you notice along the way.	
	40	B - 3	Sharing observations	Students will begin to learn new ways of observation through the observation of their peers.	observations	seated in circle	Share observations made, what senses did you engage?	
1:00 - 2:30 PM	90	Lunch		Students will feel nourished with local, organic and fair traded foods. Students will have an opportunity to share a meal together and form and strengthen community bonds.	Local Wholesome food		Nourish your body, relax and commune.	
2:30 - 4:00 PM	90	Session C	Permaculture Introduction	Students will begin to learn, work and think as a group. Community connections will begin to establish and strengthen. The learning community will feel refreshed and ready to reengage their brains.				
	15	C - 1	Energizer			Knots of People	Divide the group into teams of 8 to 12 members (note: less people than this per group won't work) Have each person in the team raise their left hands in the air. Then have each person join right hands with another person in the team - but it must be someone that is NOT standing immediately to the left or right of them. Then have each person join left hands with another person in the team - but again it has to be someone who is NOT standing immediately to the left or right and it has to be a new person on the team than they already joined their right hands with. The teams have to untangle themselves free without letting go of hands. They may have to loosen their grips a little to allow for twisting and turning. They may also have to step over or under other people. The first group to untangle their knot is the winner. A brief history of permaculture Definition = Permanent Agriculture to Permanent Culture Bill Mollison and David Holmgren Learning from nature and indigenous cultures around the world. Why a PDC and not a College Course? Permaculture now has over one million PDC graduates (a group you will join by the end of this course) over 5,000 projects in over 150 countries worldwide. Show Greening The Desert	
	30	C - 2	Permaculture History	Students will come out with a firm understanding of the philosophy of Permaculture History as well as where Permaculture is today.	Whiteboard	Lecture	Permaculture now has over one million PDC graduates (a group you will join by the end of this course) over 5,000 projects in over 150 countries worldwide. Show Greening The Desert	
	30	C - 3	Permaculture Philosophy	Students will have a firm understanding of the philosophy of Permaculture is, and what it is not. Students will also understand situations where permaculture is effective, where it should be avoided and why it would be used in some areas and not others.	Whiteboard, laptop, greening the desert video.	Lecture & video	Geoff's Definition (one of many): "A design Science that seeks to create agriculturally productive systems with the diversity and sustainability of natural systems in order to provide food, water, shelter and all other needs in a sustainable (or even regenerative) way." Knowing when, where and why to disturb. Use of damaged land. Leaving undisturbed land undisturbed. Sustainable = just barely Regenerative = Abundance Science based... intentionally not spiritual or metaphysical. In order for permaculture to have the impact that the world is in need of, it has to be open to all cultures and belief systems. That being said, many people find very deep spiritual meaning through this work. It's important to recognize, but for the purpose of teaching, it is intentionally left out. Bill's definition: "Permaculture design is a system of assembling conceptual, material, and strategic components in a pattern, which functions to benefit life in all its forms. It seeks to provide a sustainable and secure place for living things on this earth." Summarize the session (history and philosophy) Open the floor for questions and feedback. Select a scribe and have students do a PML chart on the white board. Plus Interesting Rest and relax	
	15	Summary/ Review	Summary and observations	Students will have clear comprehension of all Learning Outcomes from this section and all previous sections.		Brief summary and chance for feedback		
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be ready to return to class refreshed.	Snacks, tea, coffee and water			
4:30 - 6:00 PM	90	Session D	Ethics	Students will have a clear understanding of why ethics are important. Students will come away knowing the three permaculture ethics and how they work together and support each other.	whiteboard	Lecture + human thermometer	What are ethics? Why are ethics important? Earth Care People Care Which is more important?? - Line people up based on which they think is more important or more urgent. engage the edges (why earth or why people) engage the center (why are you standing were you are?) So which of these two ethics is most important? Which should we be focusing on? The third ethic gives us an answer. RESOURCE SHARE! Draw arrows between Earth Care and People Care to show the feedback loop. People share resources with the earth, the earth returns the favor by sharing resources with us... as people are nourished, more people thrive. As the earth is cared for it becomes more capable of abundance. Self supporting positive feedback loop!	
	30	D - 2	Ethics Group Activity	Students will understand how ethics can be incorporated into everyday practice. Students will be able to use the ethics as a guide for judgments, decisions and design. Students will understand the importance of asking discriminating questions.	butcher paper, Markers	Class broken into 6 groups. Each group given two butcher paper sheets and markers. A recorder is selected from the group to write down the groups discussion.	Two groups for each ethic. One set of the ethics discusses the first action and the other discusses the second. ACTIONS: Buying a New Hybrid Car Buying a Used Fuel-Efficient Car Discuss for 15 minutes what questions they would ask to discover if this action meets that ethic or goes counter to it. (Refer: C.Pack Curriculum) WHAT ARE THE IMPORTANT QUESTIONS TO ASK? On first piece of butcher paper, write down all the questions that come up. Next 10 minutes, group discusses the top three most important questions that came out. Write these on the second piece of butcher paper Large and Neat. One person from each group asked to be the representative for the group	
	20	D - 3	Ethics Class Discussion	Students will have perspective on how ethics affect groups, communities and individual choices.	Results of Ethics Group Activity	full class in circle seating	Group representative presents the group's ethic and action and then top three questions the group decided on. Group discussion about asking important questions. Recap the day's lessons and ask the class in open format: What is something that went well for you today? Is there anything you would have changed about the class today if you could? What was something that surprised you?	
	10	Summary & Brief Daily	First day Summary and feedback	Students will have clear comprehension of all Learning Outcomes from this section and all previous sections.				

Time	Min	Schedule	Activity	Learning Outcomes	Materials	Setting & Preparations	Process	Teaching Notes	Likes Best/Next Times
7:30 - 8:00 AM	30	Breakfast	Light Breakfast	Students will feel nourished with local, organic and fair traded foods.	Fruit, Juice, Toast, Cereal, Coffee, Tea, etc., Plates, bowls, utensils, napkins, etc...	Arrange a table with tasty bits and serving utensils. A sign that says PLEASE WASH UP AFTER YOURSELF!	Nourish your body!		
8:00 - 9:00 AM	60	Hands-on	Registration (time for mingling)	Students will have started to forge relationships with fellow students. Students be signed in, fully paid, have a name tag, and be ready to start the course.	Attendee list, registration table, supporters info...	Table arranged with registration information, handouts and supporters info.	Sign-in. Pay remaining course fees. Mingle and meet new friends.	Learning Agreement: - We are all teachers and learners. - Everyone has the right to speak (respect the airspace) - Stick to the topic - We are all at different places on the learning journey. - cooperation not competition - Secrets stay here - confidentiality please. - Speak only for yourself - Everyone has the right to pass (no peer pressure please).	
9:00 - 9:30 AM	30	Review	Housekeeping	Students will have a clear understanding of where the bathrooms are, where the first aid is located and any other important housekeeping info. Students will also be oriented to the schedule of the course and the over all flow of each day as well as be introduced to the structure, format and goals of the course.	Daily Schedule handout	Arrange room with chairs in a large circle. Learning agreement written on whiteboard.	- Hung Naam "water room" (you don't have to ask to go) - Course & Daily Schedules (handout) - Meals & Breaks (Donations appreciated) - Morning hands-on (lend a hand throughout the day with small stuff) - Review Learning agreement, structure, format and goals of course.	- list of locations for field trip (what you can expect to see there) for voting.	
9:30 - 11:00 AM	90	Session A	Ice Breaker - two circles	All students will have met each other.	Ball, Post-it Notes, Markers, whiteboard	Keypoint position is marked on the ground. Everyone stands and forms two circles (inner and outer)	To the person in front of you, say your name and an animal or plant that best describes your current mood. After greeting, everybody takes a step to their right. At one point in the circle (keypoint) the two people swap circles allowing everyone the opportunity to meet everyone else.	Expression name circle.	
	60	A - 2	Individual introductions	Students will begin to get to know each other and reinforce the memory of each other's names.	Ball	Sitting in the large circle.	Say your name, a little bit about yourself and what permaculture means to you. Then make eye contact with the next person, say their name and, if you can remember, what their animal or plant was before tossing the ball. Try to keep your intro to 1 minute		
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water				
11:30 - 1:00 PM	90	Session B	Continued Introductions - Thinking and learning as a Community. (learning agreement exercise)	Students will have a clear understanding of their individual goals and desired outcomes for the course. Students will also recognize common group goals as well as the goals of the course facilitators.	Post-it Notes, Markers	Groups of 2. Hand out 3 post-its to every other person. Two of one color and the third a different color. After intro to section, tell the person with the post-its to turn to their right and everybody else turn to their left. Chow and I will also right out our goals but on different colors so they stand out.	First 3 minutes: Person with the post-its talks about their top 3-5 goals for the course, what do they most want to get out of the course or what are they hoping to learn. The other person listens, maybe asks clarifying questions to help the person reach the root of their goals for the course. Second 3 minutes: Roles swap Third 5 minutes: Discuss shared goals. Goals that you might have both mentioned or something you heard the other person say that you agree with. On the (single color) post-it list the goal that stands out as most important and that is easiest to agree upon. Fourth 3 minutes: On the two post-its of the same color, list the most important personal goal (WRITE IN LARGE PRINT). One for each individual. all three post-its can have the same thing on them if the goals are that important and agreed upon)	Work to come to agreement quickly. Watch the TIME!	
	10	B - 2	Goals organized	Students will observe the various goals of other students and how they relate to their own. Students will observe the facilitators goals for the course.	White board, post-its, goals	Facing the whiteboard, one person elected to organize post-it notes on board.	All goals are organized and observed is there anyone here that is a great organizer and would like to arrange and group these goals really quickly?	TO ORGANIZER: You have a very important job. You have to let the group and use your own judgment to organize and categorize these goals as best you can. You have to be clear with the group what your are doing and why and also listen to feedback and adjust. TO THE GROUP: You also have a very important job. You're is to speak clearly and calmly and find ways to come to agreement about how things should be organized so that you speak as close as possible to speaking with a single voice about what you'd like to see on the board. 7 minutes is a very short time to accomplish this work. Let's see how we go. (IMPORTANT: we want to respect each other's goals and our reasons for being here. This means that we should be open to the fact that others could be here for entirely different reasons than us, and that is ok! - on the other hand you can see that many of us are here for very similar reasons. This is an opportunity for us to work together to build relationships that will help to achieve our goals both individually and as a whole.) 1976 - publication of Permaculture One (1978) & Permaculture Two (1979) first design course, January 1981 first international meeting and award of diplomas October 1984 - design course handbook "the 1985 curriculum" Designer's Manual, 1988 Introduction to Permaculture, 1991 - other introductory and resource texts that have followed - Publication of Permaculture Principles & Pathways Beyond Sustainability 2002	
	45	B - 3	Goals discussion	Students will have a firm set of goals, reinforced by their peers, shared and personal. Students will have a clear understanding of the facilitators goals and have an opportunity to question them.	Whiteboard, post-its, goals	Facing the whiteboard, discussion	Is there anything that stands out? Are there any questions that arise? What surprises you? What doesn't surprise you at all?		
	15	B - 4	Name game	Students will review and recall the names of everyone in the room. Every student should be able to go around the circle and say everybody's name.	Ball or other throwing object	Standing in circle	Make eye contact and say the name of the person you are tossing the ball to. Everyone's name gets said at least twice.		
1:00 - 2:30 PM	90	Lunch		Students will feel nourished with local, organic and fair traded foods. Students will have an opportunity to share a meal together and form and strengthen community bonds.	Local Wholesome food		Nourish your body, relax and commune.		
2:30 - 4:00 PM	90	Session C	Host Introduction	Students will feel informed about the history and purpose of the host organization.	None		Wes, Summer and Bunny describe Creation Flame		
	10	C - 1	Creation Flame intro						
	45	C - 2	Site tour (exercise your skills of observation engaging all senses)	Students will become acquainted with the host space. Students will begin to exercise their observation skills.	Eyes, ears, nose, taste, feel	Guided site tour	Guided site tour, write down any interesting observations you notice along the way.		
	30	C - 3	Sharing observations	Students will begin to learn new ways of observation through the observation of their peers.	observations	seated in circle	Share observations made, what senses did you engage?	ONLY ONE MINUTE PER PERSON. Watch time and cut off if needed.	
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be ready to return to class refreshed.	Snacks, tea, coffee and water				
4:30 - 6:00 PM	90	Session D	Permaculture Introduction	Students will come out with a firm understanding of the philosophy of Permaculture History as well as where Permaculture is today. Students will also understand situations where permaculture is effective, where it should be avoided and why it would be used in some areas and not others.	Whiteboard	Lecture	A brief history of permaculture Definition = Chew to do PRE permaculture Permanent Agriculture to Permanent Culture 1972 - Club of Rome (a meeting of global leaders to do an energy audit of the planet - produced the "Limits to Growth" book) Bill Mollison and David Holmgren met at university and shared a house for 2 years learning from each other. Bill taught on radio and eventually told David there was so much interest that they needed to write a book. David was writing this thesis - this became "Permaculture One" Bill then went out learning from nature and indigenous cultures around the world and not a College Course? Permaculture now has over one million PDC graduates (a group you will join by the end of this course) over 3,000 projects in over 150 countries worldwide. Show Greening The Desert	David's Definition: "Consciously designed landscapes which mimic the patterns and relationships found in nature to yield an abundance of food, fiber and shelter for the provision of local needs." If Permaculture had a vision statement. The real Definition - "The use of systems thinking and design principles that provide a framework for implementing the above vision."	
	15	Summary/ Review	Summary and observations	Students will have clear comprehension of all Learning Outcomes from this section and all previous sections.	None	Brief summary and chance for feedback			

Time	Min	Schedule	Activity	Learning Outcomes	Materials	Setting & Preparations	Process	Teaching Notes
7:30 - 8:00 AM	30	Breakfast	Light Breakfast	Students will feel nourished with local, organic and fair traded foods.	Fruit, Juice, Toast, Cereal, Coffee, Tea, etc... Plates, bowls, utensils, napkins, etc...	Arrange a table with tasty bits and serving utensils. A sign that says PLEASE WASH UP AFTER YOURSELF!	Nourish your body!	
8:00 - 9:00 AM	60	Hands-on	Decided in advance	Students will gain hands-on experience in a variety of farm activities.		Be ready to break people into teams to perform farm tasks. Make sure all materials and tools are available and ready.	Break into teams and perform tasks... if the teams don't have a leader they may have to figure out how they will accomplish their task as a group. (last 15 minutes clean and put tools away)	
9:00 - 9:30 AM	30	Review	Name Game Review	Students will have a connection with their community reinforced. Students will recall moments from the previous day's lessons.	Ball	Sit in circle	Start with yourself, say one thing you enjoyed about yesterday, one thing you found challenging and one thing that you are excited to learn more about. Say the name of the next person and pass them the ball... they continue.	
9:30 - 11:00 AM	90	Session A	Intro Continued					
	10	A - 1	Identifying the issues - discussion	Students will feel introduced to some of the challenges the world faces.	None	Sit in circle	Discuss the challenges we face as a world community today: peak energy peak water peak soil mass extinction loss of biodiversity climate change food security (famine) Pollution (landfills) Environmental destruction	
	15	A - 2	Worst Possible Outcomes	Students will have share their fears for the world and have them clearly understood and represented. Students will have practiced compassionate and open listening.	Butcher Paper, markers	Break into groups of 4 or 5. One person assigned as the recorder and one person a time keeper.	Individuals in the group each take a moment to describe what they imagine to be the WORST possible outcome for humanity on this planet while the recorder attempts to capture their thoughts verbatim. Time keeper insures everyone has the opportunity to respond. After the section has ended, the worst possible outcomes are collected and disposed.	
	15	A - 3	Best Possible Outcomes	Students will have an opportunity to creatively imagine a future they would like to live in. Students will continue practicing compassionate and open listening. Students will have had an opportunity to exercise their visioning mind.	Butcher Paper, markers	Same Groups... facilitator and recorder roles shift.	Individuals in the group each take a moment to describe what they imagine to be the BEST possible outcome for humanity on this planet while the recorder attempts to capture their thoughts verbatim. Time keeper insures everyone has the opportunity to respond. (IMPORTANT: Reinforce the groups power to create their own reality. This is their opportunity to vision the BEST POSSIBLE world... not "good enough" or "if we don't kill ourselves first"... What does the MOST FANTASTIC WORLD YOU WANT TO LIVE IN look like?)	
	15	A - 4	Beliefs & Behaviors	Students learn a process to ground their visions and make them real.	Butcher Paper, markers	Same Groups... facilitator and recorder roles shift.	Individuals in the group now each take a moment to discuss the their Beliefs and Behaviors that support these possible outcomes (positive).	
	35	A - 5	Presentations	Students will come out with a sense of shared vision.	none	Groups select someone to present their view	Presenter from each group discusses the best possible outcomes of each individual and their beliefs and the behaviors that they see supporting these outcomes. If times allows, take a moment for reflections regarding the process. Use David Holmgren's Line graph of best and worst possible outcomes	
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be ready to return to class refreshed.	Snacks, tea, coffee and water		Relax	
11:30 - 1:00 PM	90	Session B	Permaculture Principles Intro					
	30	B - 1	Introduce Permaculture Principles	Students will feel acquainted with the many design principles in permaculture.	Butcher paper with Permaculture Principles	presentation and discussion of Permaculture Principles	Permaculture is based on a set of design principles that responsibly guide our design process and give us direction in all that we do in permaculture. It's a big part of what makes Permaculture such a powerful design system. We are all constantly guided by principles in our lives. From a very early age we are just learning to walk... with each step our young mind is learning to practice the principles of walking. "How stable is the ground in front of me, is there enough ground for me to maintain my balance, how far out should I step?" are their any rocks in from of me?" all these things we are constantly monitoring as well learn to walk... once we get going... we don't have to think about each one of these things so consciously... it becomes intuitive. Present the Principles from David Holmgren and discuss some of the other principles there are somewhere over 50 principles you could find out there). Why I like David's (because they are well thought out and very inclusive).	From Permaculture, ADM by Bill Mollison: - Work with nature rather than against nature (we are nature working) - The problem is the solution - Make the least change for the greatest possible effect - The yield of a system is theoretically unlimited - Everything Gardens
	50	B - 2	Permaculture Principles and their meaning	Students will have a more in depth understanding of the principles, what they mean and how they guide design choices.	Butcher paper with Permaculture Principles	presentation and discussion of Permaculture Principles	Go over each of the principles in detail. Give examples, tell stories, ask questions, personalize the principles.	From Introduction to Permaculture By Bill and Reny Mia Slay - Relative Location - Each element performs many functions - Each important function is supported by many elements - Efficient energy planning: Zone Sector and Slope - Use biological resources - Cycling of energy, nutrients and resources - Small scale intensive systems, including plant stacking and time stacking - Accelerating succession and evolution - Diversity, including guilds - Edge effects
	10	B - 3	Morning review	Students will begin to make a connection with the permaculture principles. Students will have clear comprehension of all Learning Outcomes from this section and all previous sections.	Thoughts from the day	Review	Quick morning review	David Holmgren - Observe and Interact - Catch and store energy - Obtain a yield - Apply self-regulation and accept feedback - Produce no waste - Design from patterns to Details - Integrate rather than segregate - Use Small and Slow Solutions - Use and value diversity - Use edges and value the marginal - Creatively Use and Respond to Change
1:00 - 2:30 PM	90	Lunch	Lunch	Students will feel nourished with local, organic and fair traded foods. Students will have an opportunity to share a meal together and form and strengthen community bonds.	Local Wholesome food		Nourish your body, relax and commune.	
2:30 - 4:00 PM	90	Session C	Methods of Design					
	40	C - 1	Design Process	Students will understand what a design process is and why it is important.	Design process handout		Brainstorm list of elements	
	10	C - 2	Elements of design					
	40	C - 3	Input output	Students will learn to do input and output analysis of multiple elements. Students see the connections and interrelationships between elements.	Butcher paper, Markers or crayons	Groups of 5	input and output analysis of any element (Classic: chicken)	
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be ready to return to class refreshed.	Snacks, tea, coffee and water		Relax	
4:30 - 6:00 PM	90	Session D	Methods of Design Zones and Sectors					
	30	D - 1	Zones Introduction		Whiteboard	A/V Lecture	Introduce Zones by drawing a diagram on the whiteboard. Show how Zones fit into centers of human activity (paths, houses, etc.) draw all these things into different maps on the white board. Groups get a map with zones already laid out and a bunch of cards with elements on them. Groups then place the elements where they feel like they would best fit based on the zones. Simply, what zone does this element go in. (Point out that their are really no right or wrong answers.) Show what sectors are and how they affect design. Flows into, through and out of a system. noisy neighbor, waste runoff, fire hazard, sun, etc...	
	20	D - 2	Zones Group activity		Zones maps and element cards	Groups of 4 - 5	Break into groups of 5. Each group has a butcher paper with two columns of elements drawn on them. On the left the title reads "Inputs" and on the right the title reads "Outputs", have the groups discuss and list the inputs of each element for 5 minutes. Switch to outputs for 5 minutes. For 10 minutes have students connect inputs and output together by drawing lines between them. 15 minutes review as a whole class.	
	10	D - 3	Sectors Described					
	15	Summary	HOMEWORK ASSIGNMENT!!	Students will have clear comprehension of all Learning Outcomes from this section and all previous sections. Student understand and be excited about their homework assignment.		Present homework	Have students draw a picture that represents one of the permaculture Principles to be presented during review tomorrow. It can be as silly or off the wall as you want to make it... just be sure you have an explanation as to why you feel it represents the principle.	

Time	Min	Schedule	Activity	Learning Outcomes	Materials	Setting & Preparations	Process	Teaching Notes
7:30 - 8:00 AM	30	Breakfast	Light Breakfast	Students will feel nourished with local, organic and fair traded foods.	Fruit, Juice, Toast, Cereal, Coffee, Tea, etc... Plates, bowls, utensils, napkins, etc...	Arrange a table with tasty bits and serving utensils. A sign that says PLEASE WASH UP AFTER YOURSELF!	Nourish your body!	
8:00 - 9:00 AM	60	Hands-on	Decided in advance	Students will gain hands-on experience in a variety of farm activities.		Be ready to break people into teams to perform farm tasks. Make sure all materials and tools are available and ready.	Break into teams and perform tasks... if the teams don't have a leader they may have to figure out how they will accomplish their task as a group. (last 15 minutes clean and put tools away)	
9:00 - 9:30 AM	30	Review	Name Game Review	Students will have a connection with their community reinforced. Students will recall moments from the previous day's lessons.	Ball	stand in circle	Say the name of the person, make eye contact, toss the ball. ALT: Start with yourself, say one thing you enjoyed about yesterday, one thing you found ONE THING challenging and one thing that you are excited to learn more about. Say the name of the next person and pass them the ball... they continue.	Try to move quickly, if there is time, have each person go around the circle and say everybody's name once.
9:30 - 11:00 AM	90	Session A	Ethics					
	30	A - 1	Permaculture Ethics Human Thermometer	Students will have a clear understanding of why ethics are important. Students will come away knowing the three permaculture ethics and how they work together and support each other.	whiteboard	Lecture + human thermometer	What are ethics? Why are ethics important? Earth Care People Care Community Care Which is more important?? - Line people up based on which they think is more important more urgent, engage the edges (why earth or why people) engage the center (why are you standing where you are?) So which of these two ethics is most important? Which should we be focusing on? The third ethic gives us an answer... RESOURCE SHARE! Draw arrows between Earth Care and People Care to show the feedback loop. People share resources with the earth, the earth returns the favor by sharing resources with us... as people are nourished, more people thrive. As the earth is cared for it becomes more capable of abundance. Self supporting positive feedback loops -- and it is all supported and reinforced by the sharing of resources!	ALT QUESTIONS: Buying carbon credits that go to planting trees to offset carbon footprint. vs. Planting trees in your neighborhood.
	30	A - 2	Ethics Group Activity	Students will understand how ethics can be incorporated into everyday practice. Students will be able to use the ethics as a guide for judgements, decisions and design. Students will understand the importance of asking discriminating questions.	butcher paper, Markers	Class broken into 6 groups. Each group given two butcher paper sheets and markers. A recorder is selected from the group to write down the groups discussion. ACTIONS: Buying a New Hybrid Car Buying a Used Fuel-Efficient Car	Two groups for each ethic. One set of ethics discusses the first action and the other discusses the second. ACTIONS: Discuss for 15 minutes what questions they would ask to discover if this action meets that ethic or goes counter to it. (Refer: C.Peck Gutierrez) WHAT ARE THE IMPORTANT QUESTIONS TO ASK? On first piece of butcher paper, write down all the questions that come up. Next 10 minutes, group discusses the top three most important questions that came out. Write these on the second piece of butcher paper Large and Neat. One person from each group asked to be the representative for the group	Buying a namebrand product from a local store. vs. Buying locally produced product from the farmers market.
	20	A - 3	Ethics Class Discussion	Students will have perspective on how ethics affect groups, communities and individual choices.	Results of Ethics Group Activity	full class in circle seating	Group representative presents their group's ethic and action and then top three questions the group decided on. Group discussion about asking important questions. Relax	Each group has 3 minutes to present... WATCH TIME!
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be ready to return to class refreshed.	Snacks, tea, coffee and water		Relax	
11:30 - 1:00 PM	90	Session B	Best Worst Cases					
	10	B - 1	Identifying the issues - discussion	Students will feel introduced to some of the challenges the world faces.	Whiteboard	Brainstorm	Brainstorm a list of the challenges we face as a world community today: peak energy peak water peak soil mass extinction loss of biodiversity climate change food security (famine) Pollution (landfills) Environmental destruction	We know what the challenges are... they are everpresent around us! This course is not about challenges, it's about solutions... but we need to know what the challenges are if we are going to be able to creatively design appropriate solutions. THAT is what permaculture design is for ME - a creative solutions design process to meet the challenges we face in the world today... it's only partly about land and water and food/using gardening!
	15	B - 2	Worst Possible Outcomes	Students will have share their fears for the world and have them clearly understood and represented. Students will have practiced compassionate and open listening.	Butcher Paper, markers	Break into groups of 4 or 5. One person assigned as the recorder and one person a time keeper.	Individuals in the group each take a moment to describe what they imagine to be the WORST possible outcome for humanity on this planet while the recorder attempts to capture their thoughts verbatim. Time keeper insures everyone has the opportunity to respond. After the section has ended, the worst possible outcomes are collected and disposed.	
	15	B - 3	Best Possible Outcomes	Students will have an opportunity to creatively imagine a future they would like to live in. Students will continue practicing compassionate and open listening. Students will have had an opportunity to exercise their visioning mind.	Butcher Paper, markers	Same Groups... facilitator and recorder roles shift.	Individuals in the group each take a moment to describe what they imagine to be the BEST possible outcome for humanity on this planet while the recorder attempts to capture their thoughts verbatim. Time keeper insures everyone has the opportunity to respond. (IMPORTANT: Reinforce the groups power to create their own reality. This is their opportunity to vision the BEST POSSIBLE world... not "good enough" or "if we don't kill ourselves first"... What does the MOST FANTASTIC WORLD YOU WANT TO LIVE IN look like?)	
	15	B - 4	Beliefs & Behaviors	Students learn a process to ground their visions and make them real.	Butcher Paper, markers	Same Groups... facilitator and recorder roles shift.	Individuals in the group now each take a moment to discuss the their Beliefs and Behaviors that support these possible outcomes (positive).	
	35	B - 5	Presentations	Students will come out with a sense of shared vision.	none	Groups select someone to present their view	Presenter from each group discusses the best possible outcomes of each individual and their beliefs and the behaviors that they see supporting these outcomes. If times allows, take a moment for reflections regarding the process. Use David Holmgren's Line graph of best and worst possible outcomes	6 groups have 3 minutes to present 7 groups have 2.5 minutes
1:00 - 2:30 PM	90	Lunch	Lunch	Students will feel nourished with local, organic and fair traded foods. Students will have an opportunity to share a meal together and form and strengthen community bonds.	Local Wholesome food		Nourish your body, relax and commune.	
2:30 - 4:00 PM	90	Session C	Permaculture Principles Intro					
	30	C - 1	Introduce Permaculture Principles	Students will feel acquainted with the many design principles in permaculture.	Butcher paper with Permaculture Principles	presentation and discussion of Permaculture Principles	Permaculture is based on a set of design principles that responsibly guide our design process and give us direction in all that we do in permaculture. It's a big part of what makes Permaculture such a powerful design system. We are all constantly guided by principles in our lives. From a very early age we are just learning to walk... with each step our young mind is learning to practice the principles of walking. "How stable is the ground in front of me, is there enough ground for me to maintain my balance, how far out should I step?" are their any rocks in from of me?" all these things we are constantly monitoring as well learn to walk... once we get going... we don't have to think about each one of these things so consciously... it becomes intuitive. Present the Principles from David Holmgren and discuss some of the other principles there are somewhere over 50 principles you could find out there). Why I like David's (because they are well thought out and very inclusive).	From Permaculture, ADM by Bill Mollison: - Work with nature rather than against nature (we are nature working) - The problem is the solution - Make the least change for the greatest possible effect - The yield of a system is theoretically unlimited - Everything Gardens
	60	C - 2	Permaculture Principles and their meaning	Students will have a more in depth understanding of the principles, what they mean and how they guide design choices. Students will begin to make a connection with the permaculture principles.	Butcher paper with Permaculture Principles	presentation and discussion of Permaculture Principles	Go over each of the principles in detail. Give examples, tell stories, ask questions, personalize the principles.	From Introduction to Permaculture By Bill and Reny Mia Slay Relative Location - Each element performs many functions - Each important function is supported by many elements - Efficient energy planning: Zone Sector and Slope - Use biological resources - Cycling of energy, nutrients and resources - Small scale intensive systems, including plant stacking and time stacking - Accelerating succession and evolution - Diversity, including guilds - Edge effects
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be ready to return to class refreshed.	Snacks, tea, coffee and water		Relax	
4:30 - 6:00 PM	90	Session D	Methods of Design					
	40	D - 1	Design Process	Students will understand what a design process is and why it is important.	Design process handout		Show on the board a basic design process. Goals -> Analyze & Assess -> Design -> Implement -> Evaluate -> Goals -> Implement	Goals -> Critical THIS IS THE FOUNDATION OF ALL THE WORK YOU WILL DO!!
	40	D - 3	Input output	Students will learn to do input and output analysis of multiple elements. Students see the connections and interrelationships between elements.	Butcher paper, Markers or crayons	Groups of 5	input and output analysis of any element (Classic: chicken)	Have one input - output list for full class review.
	10	Summary	HOMEWORK ASSIGNMENT!!	Students will have clear comprehension of all Learning Outcomes from this section and all previous sections. Student understand and be excited about their homework assignment.		Present homework	Have students draw a picture that represents one of the permaculture Principles to be presented during review tomorrow. It can be as silly or off the wall as you want to make it... just be sure you have an explanation as to why you feel it represents the principle.	

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8:00 - 9:00 AM	60	Hands-on	Decided in advance	Students will gain hands-on experience in a variety of farm activities.		Be ready to break people into teams to perform farm tasks. Make sure all materials and tools are available and ready.	Break into teams and perform tasks... if the teams don't have a leader they may have to figure out how they will accomplish their task as a group. (last 15 minutes clean and put tools away)	
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9:30 - 11:00 AM	90	Session A	Ethics					
	30	A - 1	Permaculture Ethics Human Thermometer	Students will have a clear understanding of why ethics are important. Students will come away knowing the three permaculture ethics and how they work together and support each other.	whiteboard	Lecture + human thermometer	What are ethics? Why are ethics important? Earth Care People Care Community Care Which is more important?? - Line people up based on which they think is more important more urgent, engage the edges (why earth or why people) engage the center (why are you standing where you are?) So which of these two ethics is most important? Which should we be focusing on? The third ethic gives us an answer... RESOURCE SHARE! Draw arrows between Earth Care and People Care to show the feedback loop. People share resources with the earth, the earth returns the favor by sharing resources with us... as people are nourished, more people thrive. As the earth is cared for it becomes more capable of abundance. Self supporting positive feedback loops -- and it is all supported and reinforced by the sharing of resources!	ALT QUESTIONS: Buying carbon credits that go to planting trees to offset carbon footprint. vs. Planting trees in your neighborhood.
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	20	A - 3	Ethics Class Discussion	Students will have perspective on how ethics affect groups, communities and individual choices.	Results of Ethics Group Activity	full class in circle seating	Group representative presents their group's ethic and action and then top three questions the group decided on. Group discussion about asking important questions. Relax	Each group has 3 minutes to present... WATCH TIME!
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be ready to return to class refreshed.	Snacks, tea, coffee and water		Relax	
11:30 - 1:00 PM	90	Session B	Best Worst Cases					
	10	B - 1	Identifying the issues - discussion	Students will feel introduced to some of the challenges the world faces.	Whiteboard	Brainstorm	Brainstorm a list of the challenges we face as a world community today: peak energy peak water peak soil mass extinction loss of biodiversity climate change food security (famine) Pollution (landfills) Environmental destruction	We know what the challenges are... they are everpresent around us! This course is not about challenges, it's about solutions... but we need to know what the challenges are if we are going to be able to creatively design appropriate solutions. THAT is what permaculture design is for ME - a creative solutions design process to meet the challenges we face in the world today... it's only partly about land and water and food/using gardening!
	15	B - 2	Worst Possible Outcomes	Students will have share their fears for the world and have them clearly understood and represented. Students will have practiced compassionate and open listening.	Butcher Paper, markers	Break into groups of 4 or 5. One person assigned as the recorder and one person a time keeper.	Individuals in the group each take a moment to describe what they imagine to be the WORST possible outcome for humanity on this planet while the recorder attempts to capture their thoughts verbatim. Time keeper insures everyone has the opportunity to respond. After the section has ended, the worst possible outcomes are collected and disposed.	
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	15	B - 4	Beliefs & Behaviors	Students learn a process to ground their visions and make them real.	Butcher Paper, markers	Same Groups... facilitator and recorder roles shift.	Individuals in the group now each take a moment to discuss the their Beliefs and Behaviors that support these possible outcomes (positive).	
	35	B - 5	Presentations	Students will come out with a sense of shared vision.	none	Groups select someone to present their view	Presenter from each group discusses the best possible outcomes of each individual and their beliefs and the behaviors that they see supporting these outcomes. If times allows, take a moment for reflections regarding the process. Use David Holmgren's Line graph of best and worst possible outcomes	6 groups have 3 minutes to present 7 groups have 2.5 minutes
1:00 - 2:30 PM	90	Lunch	Lunch	Students will feel nourished with local, organic and fair traded foods. Students will have an opportunity to share a meal together and form and strengthen community bonds.	Local Wholesome food		Nourish your body, relax and commune.	
2:30 - 4:00 PM	90	Session C	Permaculture Principles Intro					
	30	C - 1	Introduce Permaculture Principles	Students will feel acquainted with the many design principles in permaculture.	Butcher paper with Permaculture Principles	presentation and discussion of Permaculture Principles	Permaculture is based on a set of design principles that responsibly guide our design process and give us direction in all that we do in permaculture. It's a big part of what makes Permaculture such a powerful design system. We are all constantly guided by principles in our lives. From a very early age we are just learning to walk... with each step our young mind is learning to practice the principles of walking. "How stable is the ground in front of me, is there enough ground for me to maintain my balance, how far out should I step?" are their any rocks in from of me?" all these things we are constantly monitoring as well learn to walk... once we get going... we don't have to think about each one of these things so consciously... it becomes intuitive. Present the Principles from David Holmgren and discuss some of the other principles there are somewhere over 50 principles you could find out there). Why I like David's (because they are well thought out and very inclusive).	From Permaculture, ADM by Bill Mollison: - Work with nature rather than against nature (we are nature working) - The problem is the solution - Make the least change for the greatest possible effect - The yield of a system is theoretically unlimited - Everything Gardens
	60	C - 2	Permaculture Principles and their meaning	Students will have a more in depth understanding of the principles, what they mean and how they guide design choices. Students will begin to make a connection with the permaculture principles.	Butcher paper with Permaculture Principles	presentation and discussion of Permaculture Principles	Go over each of the principles in detail. Give examples, tell stories, ask questions, personalize the principles.	From Introduction to Permaculture By Bill and Reny Mia Slay Relative Location - Each element performs many functions - Each important function is supported by many elements - Efficient energy planning: Zone Sector and Slope - Use biological resources - Cycling of energy, nutrients and resources - Small scale intensive systems, including plant stacking and time stacking - Accelerating succession and evolution - Diversity, including guilds - Edge effects
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be ready to return to class refreshed.	Snacks, tea, coffee and water		Relax	
4:30 - 6:00 PM	90	Session D	Methods of Design					
	40	D - 1	Design Process	Students will understand what a design process is and why it is important.	Design process handout		Show on the board a basic design process. Goals -> Analyze & Assess -> Design -> Implement -> Evaluate -> Goals -> Implement	Goals -> Critical THIS IS THE FOUNDATION OF ALL THE WORK YOU WILL DO!!
	40	D - 3	Input output	Students will learn to do input and output analysis of multiple elements. Students see the connections and interrelationships between elements.	Butcher paper, Markers or crayons	Groups of 5	input and output analysis of any element (Classic: chicken)	Have one input - output list for full class review.
	10	Summary	HOMEWORK ASSIGNMENT!!	Students will have clear comprehension of all Learning Outcomes from this section and all previous sections. Student understand and be excited about their homework assignment.		Present homework	Have students draw a picture that represents one of the permaculture Principles to be presented during review tomorrow. It can be as silly or off the wall as you want to make it... just be sure you have an explanation as to why you feel it represents the principle.	

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8:00 - 9:00 AM	60	Hands-on	Decided in advance	Students will gain hands-on experience in a variety of farm activities.		Be ready to break people into teams to perform farm tasks. Make sure all materials and tools are available and ready.	Break into teams and perform tasks... if the teams don't have a leader they may have to figure out how they will accomplish their task as a group. (last 15 minutes clean and put tools away)	
9:00 - 9:30 AM	30	Review	Homework Presentation	Students will have put at least one permaculture principle into their own language and helped to cement that into their memory.	Students homework	Previous day's homework assignment presented	Students take one minute to present their drawing and quickly explain why they feel it represents the principle they chose. Principles displayed on walls if possible.	
9:30 - 11:00 AM	90	Session A	Principles Continued					
	15	A - 1	Principles Activity - Breaking into groups	Students will continue to recode permaculture principles into their own language and understanding, further helping them to cement them into their memory.	Writing materials for each group	Designate each corner of the room as one of the four activities (Song, Dance, Story, Drawing) Ask students to gather in the corner they are most drawn to. Separate groups that are too large (no more than 5 - 6 people per group no less than 3). The Permaculture Principles will be broken up between the groups so that all principles are covered and each group has a random assortment of principles available to them.	Students will spend 15 minutes gathering into groups and getting their principles. Based on the number of groups let students know how long they will have to present.	
	40	A - 2	Principles activity - Creating art	Students will translate the permaculture principles into an art of their choice.	Writing materials for each group	Students will need to self organize their group art	Students will spend the next 30 minutes coming up with a GROUP presentation of their set of principles. Drawing group will need to be instructed NOT to reproduce any of the work already presented. Use the art form you've selected to represent the permaculture principles you've been given and how they fit together.	
	35	A - 3	Principles activity - Presentation	Students will gain practice presenting in front of their peers in a creative way.		Presentations - Groups split up and listen fully to presenting group. All group work should stop so that listening can take place	Students present their art to the class (break the time up between the number of groups available so everyone gets the same amount of time to present).	
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
11:30 - 1:00 PM	90	Session B	Patterns - Intro					
	15	B - 1	Patterns Video	Students will be introduced the incredible number of patterns in nature.	Projector, internet, youtube, doodling in math patterns video	Students seated to watch video	Short videos on patterns.	
	45	B - 2	Patterns walk	Students will discover the patterns of their natural environment		Student sent outside to discover patterns in their natural environment.	Look for natural patterns in your environment. Bring back one pattern that you feel is unique or that you haven't seen before. The pattern you bring can either be a physical thing or an observation. Look for other people who have patterns that are similar to yours. Take 10 minutes to come up with a general description of your pattern. What do all the patterns of this group have in common? How might a child describe these patterns? Each group presents what their basic pattern is to the class.	
	30	B - 3	Patterns group discovery	Students will begin to recognize the similarities of patterns		Students gather into groups based on similar patterns they have discovered		
1:00 - 2:30 PM	90	Lunch	Lunch	Students will feel nourished with local, organic and fair traded foods. Students will have an opportunity to share a meal together and form and strengthen community bonds.	Local Wholesome food		Nourish your body, relax and commune.	
2:30 - 4:00 PM	90	Session C	Patterns - Activity					
	15	C - 1	Patterns Video and Intro	Students will be introduced the incredible number of patterns in nature.	Projector, internet, youtube, doodling in math patterns video	Students seated to watch video	Short videos on patterns.	
	45	C - 2	Patterns - Group Linking Discipline - pg 71 PDM	Students will reflect on the patterns that are inherent in the activities or lifestyles that they nourish.	paper, big sheets of poster board	Groups of 4 - 5	Students will share, listen, and learn about patterns through each other.	
	30	C - 3	Patterns - Group Share of Linking Disciplines and Discoveries	Students will share, listen, and learn about patterns through each other.		Groups present their pattern projects for 4-5 minutes for each group.		
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
4:30 - 6:00 PM	90	Session D	Patterns - Use in design					
	15	D - 1	(cont) Patterns - Group Share of Linking Disciplines and Discoveries	Students will share, listen, and learn about patterns through each other.		Groups present their pattern projects for 4-5 minutes for each group.		
	45	D - 2	Patterns in Design	Students will see how patterns can be applied for a permaculture design	projector, powerpoint of pictures, pictures with pattern usage			
	15	Extra Time	Patterns - False Positives and False Negatives	Students should be aware of the pattern of self-deception.	projector, TED talk, speakers, electricity			
	15	Homework	Patterns activity	Students will begin to look at patterns in their natural environment. Students will exercise their pattern eye	Patterns	Your everyday environment.		

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7:30 - 8:00 AM	30	Breakfast	Light Breakfast	Students will feel nourished with local, organic and fair traded foods.	Fruit, Juice, Toast, Cereal, Coffee, Tea, etc... Plates, bowls, utensils, napkins, etc...	Arrange a table with tasty bits and serving utensils. A sign that says PLEASE WASH UP AFTER YOURSELF!	Nourish your body!	
8:00 - 9:00 AM	60	Hands-on	Decided in advance	Students will gain hands-on experience in a variety of farm activities.		Be ready to break people into teams to perform farm tasks. Make sure all materials and tools are available and ready.	Break into teams and perform tasks... if the teams don't have a leader they may have to figure out how they will accomplish their task as a group. (last 15 minutes clean and put tools away)	
9:00 - 9:30 AM	30	Review	Homework Presentation	Students will have put at least one permaculture principle into their own language and helped to cement that into their memory.	Students homework	Previous day's homework assignment presented	Students take one minute to present their drawing and quickly explain why they feel it represents the principle they chose. Principles displayed on walls if possible.	
9:30 - 11:00 AM	90	Session A	Methods of Design Zones and Sectors					
	15	A - 1	Principles Activity - Breaking into groups	Students will continue to recode permaculture principles into their own language and understanding, further helping them to cement them into their memory.	Writing materials for each group	Designate each corner of the room as one of the four activities (Song, Dance, Story, Drawing) Ask students to gather in the corner they are most drawn to. Separate groups that are too large (no more than 5 - 6 people per group no less than 3). The Permaculture Principles will be broken up between the groups so that all principles are covered and each group has a random assortment of principles available to them.	Students will spend 15 minutes gathering into groups and getting their principles. Based on the number of groups let students know how long they will have to present.	
	40	A - 2	Principles activity - Creating art	Students will translate the permaculture principles into an art of their choice.	Writing materials for each group	Students will need to self organize their group art	Students will spend the next 30 minutes coming up with a GROUP presentation of their set of principles. Drawing group will need to be instructed NOT to reproduce any of the work already presented. Use the art form you've selected to represent the permaculture principles you've been given and how they fit together.	
	35	A - 3	Principles activity - Presentation	Students will gain practice presenting in front of their peers in a creative way.		Presentations - Groups split up and listen fully to presenting group. All group work should stop so that listening can take place	Students present their art to the class (break the time up between the number of groups available so everyone gets the same amount of time to present).	
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
11:30 - 1:00 PM	90	Session B	Patterns - Intro					
	30	B - 1	Zones Introduction	Students will have an overview of what zones are and why they are useful in design.	Whiteboard	AV Lecture	Students will have an overview of what zones are and why they are useful in design.	
	20	B - 2	Zones Group activity	Students get an opportunity to apply zone analysis and element connections, etc...	Butcher paper with zone maps drawn on them. Picture cards with elements on them.	Groups of 4 - 5	Students get an opportunity to apply zone analysis and element connections, etc...	
1:00 - 2:30 PM	90	Lunch	Lunch	Students will feel nourished with local, organic and fair traded foods. Students will have an opportunity to share a meal together and form and strengthen community bonds.	Local Wholesome food		Nourish your body, relax and commune.	
2:30 - 4:00 PM	90	Session C	Patterns - Activity					
	15	C - 1	Patterns Video and Intro	Students will be introduced the incredible number of patterns in nature.	Projector, internet, youtube, doodling in math patterns video	Students seated to watch video	Short videos on patterns.	
	45	C - 2	Patterns - Group Linking Discipline - pg 71 PDM	Students will reflect on the patterns that are inherent in the activities or lifestyles that they nourish.	paper, big sheets of poster board	Groups of 4 - 5	Students will share, listen, and learn about patterns through each other.	
	30	C - 3	Patterns - Group Share of Linking Disciplines and Discoveries	Students will share, listen, and learn about patterns through each other.		Groups present their pattern projects for 4-5 minutes for each group.		
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
4:30 - 6:00 PM	90	Session D	Patterns - Use in design					
	15	D - 1	(cont) Patterns - Group Share of Linking Disciplines and Discoveries	Students will share, listen, and learn about patterns through each other.		Groups present their pattern projects for 4-5 minutes for each group.		
	45	D - 2	Patterns in Design	Students will see how patterns can be applied for a permaculture design	projector, powerpoint of pictures, pictures with pattern usage			
	15	Extra Time	Patterns - False Positives and False Negatives	Students should be aware of the pattern of self-deception.	projector, TED talk, speakers, electricity			
	15	Homework	Patterns activity	Students will begin to look at patterns in their natural environment. Students will exercise their pattern eye	Patterns	Your everyday environment.		

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8:00 - 9:00 AM	60	Hands-on	Decided in advance	Students will gain hands-on experience in a variety of farm activities.		Be ready to break people into teams to perform farm tasks. Make sure all materials and tools are available and ready.	Break into teams and perform tasks... if the teams don't have a leader they may have to figure out how they will accomplish their task as a group. (last 15 minutes clean and put tools away)	
9:00 - 9:30 AM	30	Review	Homework Presentation	Students will have put at least one permaculture principle into their own language and helped to cement that into their memory.	Students homework	Previous day's homework assignment presented	Students take one minute to present their drawing and quickly explain why they feel it represents the principle they chose. Principles displayed on walls if possible.	
9:30 - 11:00 AM	90	Session A	Principles Continued					
	15	A - 1	Principles Activity - Breaking into groups	Students will continue to recode permaculture principles into their own language and understanding, further helping them to cement them into their memory.	Writing materials for each group	Designate each corner of the room as one of the four activities (Song, Dance, Story, Drawing) Ask students to gather in the corner they are most drawn to. Separate groups that are too large (no more than 5 - 6 people per group no less than 3). The Permaculture Principles will be broken up between the groups so that all principles are covered and each group has a random assortment of principles available to them.	Students will spend 15 minutes gathering into groups and getting their principles. Based on the number of groups let students know how long they will have to present.	
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11:30 - 1:00 PM	90	Session B	Methods of Design Zones and Sectors					
	20	B - 2	Zones Group activity	Students get an opportunity to apply zone analysis and element connections, etc...	Butcher paper with zone maps drawn on them. Picture cards with elements on them.	Groups of 4 - 5	Students get an opportunity to apply zone analysis and element connections, etc...	
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	45	C - 2	Patterns - Group Linking Discipline - pg 71 PDM	Students will reflect on the patterns that are inherent in the activities or lifestyles that they nourish.	paper, big sheets of poster board	Groups of 4 - 5	Students will share, listen, and learn about patterns through each other.	
	30	C - 3	Patterns - Group Share of Linking Disciplines and Discoveries	Students will share, listen, and learn about patterns through each other.		Groups present their pattern projects for 4-5 minutes for each group.		
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4:30 - 6:00 PM	90	Session D	Patterns - Use in design					
	15	D - 1	(cont) Patterns - Group Share of Linking Disciplines and Discoveries	Students will share, listen, and learn about patterns through each other.		Groups present their pattern projects for 4-5 minutes for each group.		
	45	D - 2	Patterns in Design	Students will see how patterns can be applied for a permaculture design	projector, powerpoint of pictures, pictures with pattern usage			
	15	Extra Time	Patterns - False Positives and False Negatives	Students should be aware of the pattern of self-deception.	projector, TED talk, speakers, electricity			
	15	Homework	Patterns activity	Students will begin to look at patterns in their natural environment. Students will exercise their pattern eye	Patterns	Your everyday environment.		

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8:00 - 9:00 AM	60	Hands-on	Decided in advance			Be ready to break people into teams to perform farm tasks. Make sure all materials and tools are available and ready.	Break into teams and perform tasks... if the teams don't have a leader, I would still plant this apple tree as a group. (last 15 minutes clean NEVER STOP AND DROP IN THE MIDDLE!)	
9:00 - 9:30 AM	30	Review	Pattern recognition - homework present		Pattern examples	sitting in a circle	ask who has brought a pattern with them that they would like to share. What did they find unique about this pattern? Ask if there was anyone else how has the same or similar pattern. Brief wrap up on the similarity of patterns in nature.	
9:30 - 11:00 AM	90	Session A	Trees & Forest Systems	Students will understand the importance of trees and forest systems within the ecosystem of the planet. Students will understand the devastation caused by destruction of forest systems.	whiteboard	lecture format	Forest systems are amazingly important to the ecosystems of the planet. What are some of the important things trees do for our environment? (Create a list on whiteboard) Drive the conversation toward the water cycle talk and what happens when trees are removed from an environment.	"Wenn ich wusste, dass die Welt morgen untergeht, würde ich denoch heute einen Apfelbaum pflanzen" (Translation: "Even if I should learn that the world would end tomorrow, I would still plant this apple tree today.") - Martin Luther WHAT TREES DO: - Build Soils (second only to marsh and swamp in soil production) - Habitat for huge range of plants and animals - Play a huge role in our water cycle WHAT HAPPENS WHEN TREES ARE LOST - Droughts and Floods - water retention ability of the soil literally evaporates - Soils dry and crack - Rivers and streams dry up - Ground water levels drop - Even the air dries out - Nutrients quickly leach out and top soils erode (with the forest's ability to regenerate) - Habitat is damaged and lost and whole ecosystems disrupted and destabilized - Over time, soils become salinated (salty) which makes forest regeneration (even with human intervention) even more difficult. - Deforestation has impoverished entire nations - Haiti - Ethiopia and much of africa We can see the effects of deforestation in these areas as well. Seyway (Is the more reason for Martin Luther to plant that apple tree, eh?) Start with the basic drawing of a tree (Stem and Crown) "We all know what this is... it's a tree!" What kind of life might we expect to find here? - Birds - Bugs - Squirrels This is known as the stem and crown and is only one part of a much larger system that is a tree. Draw the Detritus biomass zone. "What is this? Leaf litter layer - detritus. What sort of life might we find in this biomass zone?" "And finally, we have the roots zone" Draw roots on the board. "What kind of life might we find here?" Explain the rhizosphere.
	30	A - 2	Biomass drawing	Students will learn about the three biomass zones of a tree and how they are interconnected with each other and the environment around them.	Whiteboard	Draw a picture of a Tree on the whiteboard. Brainstorm/ Discussion/Lecture	Start with the basic drawing of a tree (Stem and Crown) "We all know what this is... it's a tree!" What kind of life might we expect to find here? - Birds - Bugs - Squirrels This is known as the stem and crown and is only one part of a much larger system that is a tree. Draw the Detritus biomass zone. "What is this? Leaf litter layer - detritus. What sort of life might we find in this biomass zone?" "And finally, we have the roots zone" Draw roots on the board. "What kind of life might we find here?" Explain the rhizosphere.	Trees literally grow out of a layer of their own waste (Detritus) - fallen trees, etc... that fungi and bacteria decompose) Trees shed their own weight in leaf litter many times over the course of their life Bacteria, fungi, and other types of organisms help to decompose this material and make it available again to the trees, other plants, animals and other organisms This builds soil, sequesters carbon on the forest floor and helps to provide much of the biomass of the forest. (forests are making their own compost right there where it's needed) Roots and woody material also die back underground which leaves pathways for water and soil microbes that help to build humus under the surface. BUILDING SOIL, FROM ABOVE AND BELOW!
	30	A - 3		Students will understand how trees modulate sun, rainfall, temperature and wind energies.	Whiteboard	Lecture/Discussion format	From all this it's really hard to determine where the tree ends and other life begins. Trees are pretty amazing and they do a lot... but this is only half of it! Trees are major modulators of energy on this planet. They modulate four distinct energy systems: Sun, Rain, Wind and Temperature. Here is how: Solar Solar energy is captured by the leaves and turned into simple and complex sugars through the process of photosynthesis. These solar energies then go on to provide much of the biomass of the rest of the planet. 1000's of years of solar energy may exist in the soils of old growth forests. These solar energies, in the form of simple and complex sugars, are also the food source of trillions of microbes in the soil. Rainfall Six effects of forests on precipitation: 1. Compression - (draw on white board) Ocean evaporation -> Condensation (generally 20x the height of the trees on the mountain) 2. Transpiration - 50% of water in clouds comes from the trees transpiring - can increase to as much as 100% as you move inland especially if you cross more mountain ranges! 3. Condensation - accounts for a huge amount of water falling - can outweigh precipitation in some areas (rainforest in central america) 4. Insulate - Snow and meltwater are stored and dispersed over a longer time period because of trees. Trees also reduce evaporation in the same ways 5. Protection of Nuclei - bacteria living in forests help to seed the clouds. Living on the leaves -> transpired into atmosphere -> water molecules condense around them until they are too heavy to stay in atmosphere -> rain falls -> bacteria end back up on the leaves where the process begins again. 6. Slows water flows and sinks water into soils - humus acts like a sponge and holds water from evaporation and leaching shade also reduces evaporation this creates a slow release system that supports and sustains life throughout the forest ecosystem In addition, water that does flow through these forest systems is about 50% richer in MO when it finally does flow out. Temperature Ever walk into a forest and notice a significant temperature shift? Transpiration - cooling 3. Condensation - heat moderation (cools on hot days and heats on cold days -- the transfer of heat) - An average elm tree will evaporate up to 15,000 lbs of water on a clear hot day. 8000 liters in one day! this creates a very cooling effect! - Condensation off the leaves at night warms cold surrounding air. condensation needs surface area to condense on and the surface area of a tree is immense! - Thermal Mass Leaves are 86% water water stores a lot of heat and radiates it slowly this effect further regulates the forest temperature and keeps it cooler by day and warmer by night - Humidification/Dehumidification by taking up moisture or producing moisture all these things help to change and modulate temperatures Wind Trees clearly break up wind patterns In response to increasing winds, branches and leaves deform	
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
11:30 - 1:00 PM	90	Session B	Succession	Students will understand the intelligence of natural systems to apply exactly what is needed to the system and produce the next stages of successional development.	Whiteboard	Lecture format	We've looked at what forests do on many different levels but to truly understand a forest, we need to understand how they work over time. This section is going to be about succession!	There are many stages of succession but it can basically be broken down into to main phases - Primary Succession and Secondary Succession Primary Succession is the process of raw materials in rock being broken down into soil... this is done by lichens and bacteria and takes hundreds to thousands of years. Secondary Succession is where plants are able to colonize and come into the process... this, depending on conditions, speeds the process significantly, bare ground can become mature "climax" forest in as little as 300 years - to a few thousand years. 1. Thin net like roots. (draw on whiteboard) these have the loose growing medium... their roots get to spread out and exhibit their natural behavior of netting together... they love disturbed loose soils, and they are doing something amazing! These net like roots are gripping the loose gravel material on top of the gravel driveway and preventing it from eroding away in heavy rains. As they spread and die back, they set up the conditions for other life to enter the system. Even when their dead, these net like roots are still holding things together! 2. Next comes another important player... can anyone guess what other type of root structure would like this environment? Lets look a little closer at what is happening. On the surface there is a lack of nutrient, important minerals have leached away with the rain. The soil under the surface is dense and heavily compacted, but the seeds from a particular type of plant would find this environment the perfect place to germinate. It's a minor miracle... it's the tap root! The tap root mines minerals from the depths of the subsoils and brings them to the surface. to do this they send a single root down deep through the compacted layers and open up the soils. This makes channels for water and opens the soil further... 3. So now we have soil that is starting to look more like a garden and less like a driveway. What enters the picture next? More herbaceous pioneers that are now able to get their roots in their own soil. Some of these are dynamic accumulators (like the tap roots but maybe different roots and growing habits) Some of these might be another class of pioneers... the legumes. (define legumes) Legumes serve a VERY important role in succession. These plants have nitrogen fixing bacteria in their roots. These are natural fertilizers! all these plants are setting feeding this push from a gravel driveway at this point! 4. Next we have a new comer on to the scene... Woody pioneers. Many of these are also nitrogen fixing (mesquite). Often times, these woody perennials see an opportunity (fresh soils prepared for them by the previous phases) and they get aggressive, they take over everything and crowd and shade out the layers below... then they get greedy and eat up all the resources until they can no longer support themselves... capricious! These guys are called the fast carbon pathways... fast aggressive growth that results in competition for resources and, ultimately, collapse. The whole time, their body mass is accumulating minerals, energy from the sun, carbon AND they are putting high amounts of nitrogen into their roots, stems and leaves. As they die back, unable to get any more resources from the earth for their own growth, they leave behind rich rich rich that allows for another step in fertility and yet another phase of the successional pathway. Does anybody recognize the gravel driveway at this point? 5. Next, we tend to seem mid to large trees appear... usually conifers. these guys also grow tap roots and grow very fast, they'll stick around for a few hundred years or more... And finally, if conditions are right we come to a stage where hardwood, deciduous trees develop. These come in and begin to create beautiful, abundant food, fiber, habitat and much more for a huge diversity of life. If you look at this on a big scale... you'll notice that, along the way... you have things coming up, dying back rising and falling but... all these stages can and often do exist together in time. At the end, you might still have patches were the loose netlike roots are needed. When a tree falls over it tears up the ground and erosion control comes back into play. In a truly mature forest, you will see spaces for all these stages of succession... sometimes very close to each other. In permaculture, and after lunch, we are going to talk about we can use our understanding of this process to create dynamic, abundant, diverse and highly fertile systems systems that take us from gravel to forest MUCH faster than nature can do on her own.
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
11:30 - 1:00 PM	90	Session B	Succession	Students will understand the intelligence of natural systems to apply exactly what is needed to the system and produce the next stages of successional development.	Whiteboard	Lecture format	We've looked at what forests do on many different levels but to truly understand a forest, we need to understand how they work over time. This section is going to be about succession!	There are many stages of succession but it can basically be broken down into to main phases - Primary Succession and Secondary Succession Primary Succession is the process of raw materials in rock being broken down into soil... this is done by lichens and bacteria and takes hundreds to thousands of years. Secondary Succession is where plants are able to colonize and come into the process... this, depending on conditions, speeds the process significantly, bare ground can become mature "climax" forest in as little as 300 years - to a few thousand years. 1. Thin net like roots. 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1:00 - 2:30 PM	90	Lunch		Students will feel nourished with local, organic and fair traded foods.	Local Wholesome food		Nourish your body, relax and connect.	
2:30 - 4:00 PM	90	Session C	Guides & Food Forests	Students will have an understanding of how succession is not a linear thing... only described that way here to make it easy. Students will have an opportunity to ask questions if time allows.	Whiteboard	Discussion/Lecture	Succession is not linear. It is easier to explain it and understand it in a linear format... but the reality is that all these stages may be present at any given time and space.	
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4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
4:30 - 6:00 PM	90	Session D	Animal Systems	Students will gain an understanding of what food forest systems are and why we would work with them.	Whiteboard	Discussion/Brainstorm	Draw and describe the spectrum of Conventional Ag vs. Natural Forests What are some of the properties of conventional Ag? Natural Forests? Where does Organic Ag fit on this spectrum? We need Organic Ag but it starts at this end and pushes that way... GREAT! That's important stuff! Food forests on the other hand... start at the natural forest end of the spectrum and asks, "how can we tip this back toward high yields while holding on to all these other benefits?" Food forests use the systems and ideas we discussed before but they design systems that are MORE diverse and abundant. We use plants natural habits and behaviors to speed the hand of succession in the directions that we want, here's how: A forest is made up of layers. In the food forest we want to mimic those layers, at least seven (draw on board) 1. Ground cover - very important, establish early - first stage of succession... even better if it is nitrogen fixing... but should be mixed if possible.) 2. Root layer - serves multiple functions, starch crops, can also be ground covers, etc... 3. Herbaceous - non-woody plants (most of our food plants), beneficials, insectary, medicinal, food, dynamic accumulators, N2 Fixers, etc... These should also be established early... favor perennials! 4. Woody perennials - N2 Fixers, berries, shrubs, beneficials, etc... 5. Understory trees - Dwarf fruit, nut trees, N2 Fixers, etc... 6. Canopy trees - N2, fruits and nuts, timber, etc... 7. Climbers - food, rope, N2 fixers, etc... Doesn't the pattern look familiar? Go back through the succession process and describe how all these things can be stacked together using Patch Dynamics and guilds. Notice the use of N2 fixers in almost every layer. Legumes are a huge plant family (largest?) they cross all layers of the forest and should be a major part of your food forest design, why? because these guys are nature's fertilizer! And these are the things that are going to take what takes nature 300 to a few thousand years to create in 30 - 50 years... we can regenerate the forests of the world, with even greater abundance, in one generation! Here is how: By overstacking these N2 Fixers, the fast carbon pathways, 100,000 in the ground cover, 10,000 in the herbaceous layer, 1,000 in the shrub layer, 100 in the Understory, 10 in the overstory, 1 fruit tree, 90% N2 fixers = 10% fruit after 10 - 15 years... this ratio flips. You selectively remove and "chop and drop" they N2 Fixers building soils both above and below the surface. Giving your productive species a boost. The N2 Fixers will both compete themselves out while making fertile soils) and you will be favoring the productive species. In this climate it is important to note that chop and drop should be done sparingly (until you really get things cranking, and then only during cool wet times of year... NEVER CHOP AND DROP IN THE SUMMER HERE. Shade in high evaporative climates is FAR more important than much!) Patch Dynamics. Start Small. If you have one fruit tree... Start there and create a guild around that tree. Use sheet mulching, cover crops, etc... Using animal tractor systems to help establish and maintain food forests.	
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
4:30 - 6:00 PM	90	Session D	Animal Systems	Students will understand why animals are important (even if not eaten) in permacultural systems	whiteboard	Discussion/Lecture	Animals are important because: Outputs match with inputs and vice versa with plants.	
	20	D - 2	Micro livestock	Students will gain an understanding of micro livestock systems and strategies		Discussion/brainstorm/lecture	What are the micro livestock? Here is how we use them?	Tractor systems
	25	D - 3	Livestock and broad acre	Students will understand livestock grazing strategies on broad acre		Discussion/Lecture	Live stock grazing strategies.	Grazing systems
	15	Summary	Daily review	Students will review the day		Question/Answer		

Time	Min	Schedule	Activity	Learning Outcomes	Materials	Setting & Preparations	Process	Teaching Notes
7:30 - 8:00 AM	30	Breakfast	Light Breakfast	Students will feel nourished with local, organic and fair traded foods.	Fruit, Juice, Toast, Cereal, Coffee, Tea, etc... Plates, bowls, utensils, napkins, etc...	Arrange a table with tasty bits and serving utensils. A sign that says PLEASE WASH UP AFTER YOURSELF!	Nourish your body!	
8:00 - 9:00 AM	60	Hands-on	Decided in advance			Be ready to break people into teams to perform farm tasks. Make sure all materials and tools are available and ready.	Break into teams and perform tasks... if the teams don't have a leader they may have to figure out how they will accomplish their task as a group. (last 15 minutes clean and put tools away)	
9:00 - 9:30 AM	30	Review	Trees and forest systems review					
9:30 - 11:00 AM	90	Session A	Climate					
	10	A - 1	Climate Intro	Students will learn what climate is and why it is important to design		Lecture formate		Climate is defined as the "long term state of the atmosphere." It is determined by: Solar Radiation Air masses Pressure systems (and cyclone bets Ocean Currents Topography The atmosphere is changing rapidly and so are the climates... We need to design for extremes!
	15	A - 1	Global Climate	Students will understand global climate classifications and how they relate to design.		Lecture formate	Talk about the main climate types	Tropical Rain Forest Monsoon Wet/Dry Desert Arid Mediterranean or Dry Summer Subtropic Mid Lat Desert Temperate Humid Subtropic Humid Continental Cold Subarctic Polar Tundra Ice Cap
	45	A - 2	Local Climate	Students will be connected with the climate of Texas and Austin Students will see the variety of climates that exist in Texas Students will understand Austin as a City of Edge!	Climate maps of Texas	Slideshow or maps of Texas showing different climate and geology factors	Show climate and geology maps of Texas. Explain how all these things point to Austin as a city of edge. Talk about shifting weather patterns and how they are effecting local climate. Deserts of the west pushing east, Austin on the edge... We need to push back! A lot of this we can combat by increasing vegetation, decreasing heat island effects, proper animal husbandry and grazing strategies.	
	30	A - 3	Micro Climate	Students will understand what a micro climate is and how it can work for you.		Lecture formate	Discuss using rocks and water bodies to create pockets of climate to stretch your growing area. Creating frost pockets. Shade is crucial in our brutal texas sun. Shade by plants that evapotransperate water and moisten the air.	Sepp Holzer's work. Easier to shift from cold to warm... harder to shift from warm to cool.
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
11:30 - 1:00 PM	90	Session B	Design Intro & Design Time					
	15	B - 1	Mini-Design Introduction	Students will be broken into teams and have a clear understanding of the design objective.	6 butcher paper base maps. 6 design scenarios. Markers, colored pencils, rulers, pens, pencils, scratch paper.	6 groups of 5 people each. Each group is given a base map, a design scenario and all the materials they need for design.	Start by introducing the basics of design. Scale, a box for name of project, design team, etc. What a trees, shrubs etc might look like. Encourage functional design over too many elements.	
	75	B - 2	Mini-Design - Design time	Students will have an opportunity to practice what they have learned so far by creating their first design. Students will begin to explore their "group think" and group dynamics through creating and designing together. Students will have the opportunity to practice design before the final design project.	6 butcher paper base maps. 6 design scenarios. Markers, colored pencils, rulers, pens, pencils, scratch paper.	Groups find a comfortable space to work on their design.	Design time	
1:00 - 2:30 PM	90	Lunch		Students will feel nourished with local, organic and fair traded foods. Students will have an opportunity to share a meal together and form and strengthen community bonds.	Local Wholesome food		Nourish your body, relax and commune.	
2:30 - 4:00 PM	90	Session C	Design Time					
	80	C - 1	Design time Continued	Students will have an opportunity to practice what they have learned so far by creating their first design. Students will begin to explore their "group think" and group dynamics through creating and designing together. Students will have the opportunity to practice design before the final design project.	6 butcher paper base maps. 6 design scenarios. Markers, colored pencils, rulers, pens, pencils, scratch paper.	Groups find a comfortable space to work on their design.	Design time	
	10	C - 2	Design Time Wrap up	Students will finish their designs as best they can. Students will come up with a plan for how they are going to present			Groups will wrap up their designs and discuss how they would like to present. Each group will have about 10 minutes to present their design.	
	30	C - 3						
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
4:30 - 6:00 PM	90	Session D	Presentations					
	5	D - 1	Design Presentations - intro	Students will understand the process for presentations	Completed designs, flash cards (half way, 2 minutes, 1 minute, TIMES UP!)	Presentations - facilitator seated in audience. Facilitator has flash cards to prompt presenters.	Introduce timing procedure. Follow each presentation with very brief feedback.	Timing Procedure: Halfway - are you ahead or behind in your presentation? 2 minutes - make sure you have a plan to cover any remaining major points 1 minute - Start wrapping up your presentation TIMES UP! - finish you last sentence.
	85	D - 2	Design Presentations	Students will develop their presentation skills	Completed designs, flash cards (half way, 2 minutes, 1 minute, TIMES UP!)	Presentations - facilitator seated in audience. Facilitator has flash cards to prompt presenters.	Groups present designs followed by brief feedback from facilitators	

Time	Min	Schedule	Activity	Learning Outcomes	Materials	Setting & Preparations	Process	Teaching Notes
7:30 - 8:00 AM	30	Breakfast	Light Breakfast	Students will feel nourished with local, organic and fair traded foods.	Fruit, Juice, Toast, Cereal, Coffee, Tea, etc... Plates, bowls, utensils, napkins, etc...	Arrange a table with tasty bits and serving utensils. A sign that says PLEASE WASH UP AFTER YOURSELF!	Nourish your body!	
8:00 - 9:00 AM	60	Hands-on	Decided in advance			Be ready to break people into teams to perform farm tasks. Make sure all materials and tools are available and ready.	Break into teams and perform tasks... if the teams don't have a leader they may have to figure out how they will accomplish their task as a group. (last 15 minutes clean and put tools away)	
9:00 - 9:30 AM	30	Review	Design Review	Students will have the opportunity to review the previous day's design process. Students will work on their open sharing and listening skills.		Break into pairs. try to pair with someone who was not in your design group yesterday.	Have one person for each group raise their hand. This is the first listener. For 2 minutes, talk about what you enjoyed most about yesterday's design activity. Then swap. Next 2 minutes, talk about the things you would like to improve on your next design. Then swap. If there is still time, spend 2 minutes each talking about what they found interesting about the design process.	
9:30 - 11:00 AM	90	Session A	Catch-up Opportunity					
	15	A - 1						
	45	A - 2						
	30	A - 3						
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
11:30 - 1:00 PM	90	Session B	Field Trip					
	10	B - 1						
	50	B - 2						
	40	B - 3						
1:00 - 2:30 PM	90	Lunch		Students will feel nourished with local, organic and fair traded foods. Students will have an opportunity to share a meal together and form and strengthen community bonds.	Local Wholesome food		Nourish your body, relax and commune.	
2:30 - 4:00 PM	90	Session C	Field Trip					
	15	C - 1						
	30	C - 2						
	30	C - 3						
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
4:30 - 6:00 PM	90	Session D	Field Trip					
	30	D - 1						
	20	D - 2						
	25	D - 3						
	15	Summery						

Time	Min	Schedule	Activity	Learning Outcomes	Materials	Setting & Preparations	Process	Teaching Notes
7:30 - 8:00 AM	30	Breakfast	Light Breakfast	Students will feel nourished with local, organic and fair traded foods.	Fruit, Juice, Toast, Cereal, Coffee, Tea, etc... Plates, bowls, utensils, napkins, etc...	Arrange a table with tasty bits and serving utensils. A sign that says PLEASE WASH UP AFTER YOURSELF!	Nourish your body!	
8:00 - 9:00 AM	60	Hands-on	Decided in advance			Be ready to break people into teams to perform farm tasks. Make sure all materials and tools are available and ready.	Break into teams and perform tasks... if the teams don't have a leader they may have to figure out how they will accomplish their task as a group. (last 15 minutes clean and put tools away)	
9:00 - 9:30 AM	30	Review	FIRST WEEK REVIEW	Students have the opportunity to review and share their experiences from the first week. Students will practice their open sharing and listening skills		Pairs	Break the class into pairs. Two minutes each talking about what you enjoyed about last week. Two minutes each talking about what you didn't enjoy. and two minutes each talking about what you found interesting. Class share: anything you want to share?	
9:30 - 11:00 AM	90	Session A	Water on this Planet					
	25	A - 1	Apple break down	Students will have a clear understanding of the little water that is available for human use.	Apple, sharp knife			Percentages of water in different forms on the planet. Only 3% of water on the planet is fresh water. 75% frozen in snow and ice 14% in deep underground aquifers 11% is in shallow aquifers .3% is in lakes and ponds .3% in forest soils and biology .2% in rivers .2% in the atmosphere 1 in 5 people lack access to adequate and safe drinking water. The majority of water we have is used for agriculture: only 8% is municipal (residential) 23% is for Industry and 69% for agriculture!
	35	A - 2	Water fertility		Whiteboard	Lecture/Discussion	Now that we see how much water we have available to us we can see how important it is to use this water effectively and efficiently. of the water that is accessible (aquifers, lakes & ponds, rivers, atmosphere) which do you think is the most efficient to use in a design project? The answer will likely be a combination of these. however it is easy to see how rivers, and rain might be more efficient than groundwater and lakes. The most efficient irrigation is the passive harvesting of rain water. The most efficient place to store water is below ground. can anyone tell me why? Safe from evaporation, Benefits the whole local area and raises water tables reduces soil erosion, flooding and drought, the water is available over a longer period of time comparatively cheap to install and maintain! remember that what we want to do is pacify water flows to increase fertility	Geoff Lawton's water principle: Water, traveling over the longest path; over the most distance; moving as slowly as possible; over the most time; with the greatest passive friction; affecting as many living things as possible; <i>Is the most fertile!</i> 40 - 60% of the water used in overhead irrigation NEVER REACHES THE PLANT ROOTS!
	30	A - 3	Local water		Whiteboard	Lecture/Discussion/Brainstorm	So obviously, we need to utilize the rainfall to our best possible ability. Does anybody know what the average rainfall is in Austin? about 34 inches Does anybody know what the average rainfall in Seattle is? about 36 in So what is different? Water comes in downpours Evaporation is MUCH higher and water flows through the landscape faster. It doesn't help that city planners have designed Austin similar to how they designed cities like Houston that are much wetter. The design, in most modern city landscapes is to move water away from the city as quickly as possible. Storm water can cause flooding and destroy property. Our cities are designed around a culture of water phobia! In most of Austin, we have shallow limestone bedrock. This causes underground water to move through the landscape much faster than in other areas. Water traveling the same distance might take a week in places with deep bed rock takes only 24hours or less here. The more we can slow this down and the more we can infiltrate water into our landscapes, the more fertile and abundant life will be in this, or any, region. What are some ways we can slow water down?	Brainstorm ways water can be slowed to create more fertility.
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
11:30 - 1:00 PM	90	Session B	Water Catchment Systems	Guest Presenter - Dani				
	10	B - 1					Go over various water catchment systems - advantages/ disadvantages Talk about first flush diversion give the equation for water catchment: 1" over 1000 sq ft = 600 gal catchment	Adapt/Use Dani's powerpoint
	50	B - 2					Have groups go out and design catchment systems on the property.	
	40	B - 3					Present designs Do water budget	
1:00 - 2:30 PM	90	Lunch		Students will feel nourished with local, organic and fair traded foods. Students will have an opportunity to share a meal together and form and strengthen community bonds.	Local Wholesome food		Nourish your body, relax and commune.	
2:30 - 4:00 PM	90	Session C	Water in the landscape	Guest Presenter - Dani				
	15	C - 1						
	30	C - 2						
	30	C - 3						
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
4:30 - 6:00 PM	90	Session D	Aquaculture	Guest Presenter - Dani				
	30	D - 1						10-15% of your property - that is a lot! Highly productive systems! Chinampas Gleying Aquaponics
	20	D - 2						
	25	D - 3						
	15	Summary						

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8:00 - 9:00 AM	60	Hands-on	Decided in advance			Be ready to break people into teams to perform farm tasks. Make sure all materials and tools are available and ready.	Break into teams and perform tasks... if the teams don't have a leader they may have to figure out how they will accomplish their task as a group. (last 15 minutes clean and put tools away)	
9:00 - 9:30 AM	30	Review						
9:30 - 11:00 AM	90	Session A	Soil Chemistry					
	15	A - 1			Mason jars with lids, soil samples. Image of the soil pyramid.		Take people out on the land and look at places that have different soils... Why? Do soil tests. The best soil textures are around 30 - 50% sand, 30 - 50% silt and 20 - 30% clay. Show a picture of the soil pyramid. Talk about soil minerals and testing. Why it's important/helpful. Talk about the solutions to soil infertility.	one part of humus can hold up to 4 parts water.
	45	A - 2					Talk about soil minerals and testing. Why it's important/helpful. Talk about the solutions to soil infertility.	
	30	A - 3					Talk about remediation systems Talk about the soil food web. Soil biology basics Anaerobic vs. Aerobic soils What to look for.	
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water			
11:30 - 1:00 PM	90	Session B	Soils Biology					
	10	B - 1					Talk about sheet mulching, soil amendments, etc...	
	50	B - 2						
	40	B - 3						
1:00 - 2:30 PM	90	Lunch		Students will feel nourished with local, organic and fair traded foods. Students will have an opportunity to share a meal together and form and strengthen community bonds.	Local Wholesome food		Nourish your body, relax and commune.	
2:30 - 4:00 PM	90	Session C	Soils Compost Building					
	15	C - 1						
	30	C - 2						
	30	C - 3						
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
4:30 - 6:00 PM	90	Session D	Humid Tropics					
	30	D - 1						
	20	D - 2						
	25	D - 3						
	15	Summery						

Time	Min	Schedule	Activity	Learning Outcomes	Materials	Setting & Preparations	Process	Teaching Notes
7:30 - 8:00 AM	30	Breakfast	Light Breakfast	Students will feel nourished with local, organic and fair traded foods.	Fruit, Juice, Toast, Cereal, Coffee, Tea, etc... Plates, bowls, utensils, napkins, etc...	Arrange a table with tasty bits and serving utensils. A sign that says PLEASE WASH UP AFTER YOURSELF!	Nourish your body!	
8:00 - 9:00 AM	60	Hands-on	Decided in advance			Be ready to break people into teams to perform farm tasks. Make sure all materials and tools are available and ready.	Break into teams and perform tasks... if the teams don't have a leader they may have to figure out how they will accomplish their task as a group. (last 15 minutes clean and put tools away)	
9:00 - 9:30 AM	30	Review						
9:30 - 11:00 AM	90	Session A	Earthworks					
	15	A - 1						
	45	A - 2						
	30	A - 3						
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
11:30 - 1:00 PM	90	Session B	Earthworks Continued					
	10	B - 1						
	50	B - 2						
	40	B - 3						
1:00 - 2:30 PM	90	Lunch		Students will feel nourished with local, organic and fair traded foods. Students will have an opportunity to share a meal together and form and strengthen community bonds.	Local Wholesome food		Nourish your body, relax and commune.	
2:30 - 4:00 PM	90	Session C	Earthworks Hands On					
	15	C - 1						
	30	C - 2						
	30	C - 3						
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
4:30 - 6:00 PM	90	Session D	Humid Cool & Cold					
	30	D - 1						
	20	D - 2						
	25	D - 3						
	15	Summery	Homework	Students will have the opportunity to offer up their space for design. Students will create a design brief.			If you have a real property or space you'd like to design, create a brief on the design, (Location, size, name and vision) bring a map and have materials ready for the review session tomorrow morning.	8 - 10 designs needed. Groups of 3 - 4 people optimum.

Time	Min	Schedule	Activity	Learning Outcomes	Materials	Setting & Preparations	Process	Teaching Notes
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8:00 - 9:00 AM	60	Hands-on	Decided in advance			Be ready to break people into teams to perform farm tasks. Make sure all materials and tools are available and ready.	Break into teams and perform tasks... if the teams don't have a leader they may have to figure out how they will accomplish their task as a group. (last 15 minutes clean and put tools away)	
9:00 - 9:30 AM	30	Review	Design groups	Students will have the opportunity to choose a design project that appeals to them.	8 - 10 design projects listed on the board with a brief and client name.		Ask people to work in groups of about 3 - 4 ideally. Ask who wants to work on each project and list their name next to the project.	
9:30 - 11:00 AM	90	Session A	Appropriate Tech	CHOW				
	15	A - 1						
	45	A - 2						
	30	A - 3						
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
11:30 - 1:00 PM	90	Session B	Natural Building	DANIEL				
	10	B - 1						
	50	B - 2						
	40	B - 3						
1:00 - 2:30 PM	90	Lunch		Students will feel nourished with local, organic and fair traded foods. Students will have an opportunity to share a meal together and form and strengthen community bonds.	Local Wholesome food		Nourish your body, relax and commune.	
2:30 - 4:00 PM	90	Session C	Design intro/ Map reading & Tools					
	15	C - 1						
	30	C - 2						
	30	C - 3						
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
4:30 - 6:00 PM	90	Session D	Design					
	30	D - 1						
	20	D - 2						
	25	D - 3						
	15	Summery						

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7:30 - 8:00 AM	30	Breakfast	Light Breakfast	Students will feel nourished with local, organic and fair traded foods.	Fruit, Juice, Toast, Cereal, Coffee, Tea, etc... Plates, bowls, utensils, napkins, etc...	Arrange a table with tasty bits and serving utensils. A sign that says PLEASE WASH UP AFTER YOURSELF!	Nourish your body!	
8:00 - 9:00 AM	60	Hands-on	Decided in advance			Be ready to break people into teams to perform farm tasks. Make sure all materials and tools are available and ready.	Break into teams and perform tasks... if the teams don't have a leader they may have to figure out how they will accomplish their task as a group. (last 15 minutes clean and put tools away)	
9:00 - 9:30 AM	30	Review						
9:30 - 11:00 AM	90	Session A	Dryland Strategies					
	15	A - 1						
	45	A - 2						
	30	A - 3						
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
11:30 - 1:00 PM	90	Session B	Community Cultivating					
	10	B - 1				Lecture	Write on the board "Cultivate Abundance; Cultivate Community" Talk about Cooperation vs. Competition. Ask "What does a cooperative society look like?" We've learned through permaculture how important our ethics are. What part do they play in community cooperation? Bill Mollison says in the designers manual: "Strategies for change in the social and economic areas of society... may in fact, be of more assistance to real change than the skills of land management." So if you leave here knowing only how to grow food you will have entirely missed the point of this course... Permaculture is more than just about how to cultivate the soil, it's about how we cultivate community!	Principle of Competition - "Survival of the fittest!" "Dog eat dog world" Principle of Cooperation - "All organisms are preconditioned to seek to limit and avoid stress" Competition creates stress in an ecosystem whereas the path to limiting stress is through cooperation.
	15	B - 2				Discussion / Brainstorm	Discuss strategies for cultivating community	Bioregion, Watershed, Foodshed and community. Alternative economies, farmers markets, cooperative organizations, CSA's
	30	B - 3	Eagle eyes / future world envisioning			Envisioning	We're going to take a moment to envision our future world. Imagine if all the things you learned through this course were applied, what would that world look like? So take a moment and close your eyes. Imagine you are an eagle, perched right where you sit. You have feathers, a tail and powerful wings. Take a moment to spread out your wings, feel them and the air flowing under them, the strength of their design. Now feel yourself lifting off from where you sit. long deep flaps of your wings lift you off the ground and you begin to spiral upward. As you ascend, you see the property here and the surrounding areas - look at all the details of the landscape. As you continue to climb you begin to travel forward in time... below you you are seeing the landscape change based on the work we've discussed here. 5 years - 10 years -15 years. How does this world look to you? What do you see? Continue to ascend, how is the community changing, the bio-region? You can see the city of Austin now and all of Texas, how have they transformed through the work we've done here? 30 years? 45 years? Soar up here as long as you need or want. Really use those eagle eyes and see the details below you. How is the landscape changing? What are the communities working on? Now it's time to begin your decent. And as you come back down, stay in this future world, you've created this world and it's real. Descend slowly and stay in this world for as long as you can. And as you come back to your body, the world around you has changed. This vision that you've created is real and as you open your eyes you will see this evolved world around you...	
	35		Sharing the vision			Group activity	Get together in groups of 4 - 5. Take the time to write down what you saw that stood out to you. What are the characteristics of this world? Next take the time to write down what emotions you felt arise as you explored this world. Were there any challenges that you observed? How were these challenges met?	
1:00 - 2:30 PM Day 6 Rev 0 - Field Trip	90	Lunch		Students will feel nourished with local, organic and fair traded foods. Students will have an opportunity to share a meal together and form and strengthen community bonds.	Local Wholesome food		Nourish your body, relax and commune.	
2:30 - 4:00 PM	90	Session C	Design					
	15	C - 1						
	30	C - 2						
	30	C - 3						
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
4:30 - 6:00 PM	90	Session D	Design					
	30	D - 1						
	20	D - 2						
	25	D - 3						
	15	Summary						

Time	Min	Schedule	Activity	Learning Outcomes	Materials	Setting & Preparations	Process	Teaching Notes
7:30 - 8:00 AM	30	Breakfast	Light Breakfast	Students will feel nourished with local, organic and fair traded foods.	Fruit, Juice, Toast, Cereal, Coffee, Tea, etc... Plates, bowls, utensils, napkins, etc...	Arrange a table with tasty bits and serving utensils. A sign that says PLEASE WASH UP AFTER YOURSELF!	Nourish your body!	
8:00 - 9:00 AM	60	Hands-on	Decided in advance			Be ready to break people into teams to perform farm tasks. Make sure all materials and tools are available and ready.	Break into teams and perform tasks... if the teams don't have a leader they may have to figure out how they will accomplish their task as a group. (last 15 minutes clean and put tools away)	
9:00 - 9:30 AM	30	Review						
9:30 - 11:00 AM	90	Session A	Design					
	15	A - 1						
	45	A - 2						
	30	A - 3						
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
11:30 - 1:00 PM	90	Session B	Design					
	10	B - 1						
	50	B - 2						
	40	B - 3						
1:00 - 2:30 PM	90	Lunch		Students will feel nourished with local, organic and fair traded foods. Students will have an opportunity to share a meal together and form and strengthen community bonds.	Local Wholesome food		Nourish your body, relax and commune.	
2:30 - 4:00 PM	90	Session C	Present					
	15	C - 1						
	30	C - 2						
	30	C - 3						
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
4:30 - 6:00 PM	90	Session D	Present					
	30	D - 1						
	20	D - 2						
	25	D - 3						
	15	Summery						

Time	Min	Schedule	Activity	Learning Outcomes	Materials	Setting & Preparations	Process	Teaching Notes
7:30 - 8:00 AM	30	Breakfast	Light Breakfast	Students will feel nourished with local, organic and fair traded foods.	Fruit, Juice, Toast, Cereal, Coffee, Tea, etc... Plates, bowls, utensils, napkins, etc...	Arrange a table with tasty bits and serving utensils. A sign that says PLEASE WASH UP AFTER YOURSELF!	Nourish your body!	
8:00 - 9:00 AM	60	Hands-on	Decided in advance			Be ready to break people into teams to perform farm tasks. Make sure all materials and tools are available and ready.	Break into teams and perform tasks... if the teams don't have a leader they may have to figure out how they will accomplish their task as a group. (last 15 minutes clean and put tools away)	
9:00 - 9:30 AM	30	Review						
9:30 - 11:00 AM	90	Session A	Present					
	15	A - 1						
	45	A - 2						
	30	A - 3						
11:00 - 11:30 AM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
11:30 - 1:00 PM	90	Session B	Where next					
	10	B - 1						
	50	B - 2						
	40	B - 3						
1:00 - 2:30 PM	90	Lunch		Students will feel nourished with local, organic and fair traded foods. Students will have an opportunity to share a meal together and form and strengthen community bonds.	Local Wholesome food		Nourish your body, relax and commune.	
2:30 - 4:00 PM	90	Session C	Feedback & Closing Circle					
	15	C - 1						
	30	C - 2						
	30	C - 3						
4:00 - 4:30 PM	30	Break	Break	Students will feel rested and relaxed and be return to class refreshed.	Snacks, tea, coffee and water		Relax	
4:30 - 6:00 PM	90	Session D	Awards					
	30	D - 1						
	20	D - 2						
	25	D - 3						
	15	Summery						

Day One:	Combine Permaculture History w/ Permaculture Ethics			
Day Two	Separate Ethics from Best/Worst activities			

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Next Times:

Track "Likes best / Next times" more directly and immediately throughout process.