

Amazon-PIRE 2008 Course: SCHEDULE

DAY 1 (Sunday, Jul. 13) – INTRODUCTION & OVERVIEW

MORNING

10:00: Depart hotel to base camp, settle into rooms

AFTERNOON

12:00 - 13:00: Lunch/Almoço at base camp

13:00: *Introduction to the course and Amazon-PIRE* (**Scott Saleska**)
Individual Introductions and background (**Students & Faculty**)

14:00: *Introduction to the Amazon Basin* (**Plínio de Camargo**)
Part 1: Introduction to Brazil: historical and cultural background
Part 2: [Geography and formation of Amazon](#)

17:00 - 17:30: *Evaluating Amazon-PIRE and the field course experience* (**Ralph Renger**)

EVENING

18:00 - 19:00: Dinner/Jantar

19:30: [Staying Safe in the Forest, Making Tree Measurements](#) (**Joost van Haren**)

DAY 2 (Monday, July 14)

MORNING

07:00: Breakfast/Café da manhã

07:30: Field/Lab Session: **Forest inventory measurements** (km 67 site, 5 groups)
-- Led by: Joost van Haren, Scott Saleska, Plínio Camargo, Hudson Silva, Scott Stark
Botanist Chieno moves among groups

AFTERNOON

12:00 – 13:00: Lunch/Almoço
(shower and change after lunch)

14:30-17:00: Lecture series – **TROPICAL SOILS, NUTRIENTS, & TRACE GAS FLUXES**

Part 1: [Basic Soil Physics and water balance](#) (**Joost van Haren**)

Part 2: Soil nutrient dynamics (**Plínio de Camargo**)

Part 3: [Trace gas dynamics](#) (**Joost van Haren** and **Hudson da Silva**)

EVENING:

18:00 – 19:00: Dinner/Jantar

19:00: FREE

Mini-project (for interested students): calculate tree growth-rates via comparison to previous inventory

DAY 3 (Tuesday, July 15)

MORNING

07:00: Breakfast/Café da manhã

07:30: Field/Lab Session: Divide into two groups, go to one station

1. Forest station (km 83): (a) measuring soil, soil water potential, and gas fluxes (**Joost**)
(b) measuring forest light environments and LAI (**Scott Stark**)
2. Agricultural station (km 77): measuring ecosystem fluxes via eddy covariance, radiation and energy measurements (**Shirley and Rodrigo**)

AFTERNOON

12:00 - 13:00: Lunch/Almoço (shower and change after lunch)

13:30-17:00: **LEAF-LEVEL ECOPHYSIOLOGY (Travis Huxman)**

Lecture 1: Plant Water Relations

Field demo: Ecophys measurement techniques (at Basecamp station)

Lecture 2 (part a): Plant Photosynthesis

EVENING

18:00 – 19:00: Jantar/Dinner

DAY 4 (Wednesday, July 16)

MORNING

07:00: Breakfast/Café da manhã

07:30: Field/Lab Session: Two groups switch to opposite stations they went to on Tuesday

AFTERNOON

12:00 -13:00: Lunch/Almoço (shower and change after lunch)

13:30 - 17:00: Lecture series: **BIOSPHERE-ATMOSPHERE EXCHANGE (Shirley Kurc & Rodrigo da Silva)**

Lecture 1: Carbon, Water and Energy at the ecosystem scale

Lecture 2: Measurement methods and partitioning of fluxes to ecosystem components

EVENING

18:00 - 19:00: Jantar/Dinner

19:00: Datalogger lab session at basecamp: using the CR10X (**Shirley Kurc**)

DAY 5 (Thursday, July 17) (Jim Shuttleworth arrives)

MORNING

07:00: Breakfast/Café da manhã

08:00: Field Projects: Discussion and organization of group projects

(Mentors: **Kurc, Camargo/van Haren/Hudson, Saleska/Stark, Huxman**)

AFTERNOON

12:00 - 13:00: Lunch/Almoço

13:30 - 17:00: Lecture series: **SCALING UP: FOREST LIGHT ENVIRONMENTS AND CANOPY GAPS**

Lecture 1: Scaling: Light environments and Leaf function (**Scott Stark**)

Lecture 2: Scaling: Gap dynamics, size distributions, and carbon fluxes (**Scott Saleska**)

EVENING

18:00 - 19:00: Dinner/Jantar

19:00: Free or project planning

DAY 6 (Friday, July 18)

MORNING

07:00: Breakfast/Café da manhã

08:00: Work on Field Projects (in groups with mentors)

AFTERNOON

12:00 - 13:00: Lunch/Almoço

13:30 - 17:00: Lecture series: **WHAT ARE HYDROMETEOROLOGY AND ECOSYSTEM SCIENCE TEACHING US ABOUT THE AMAZON?**

Lecture 1: The water balance of the Amazon and what controls it (**Jim Shuttleworth**)

EVENING

18:00 - 19:00: Dinner/Jantar

19:00: Free or project planning

Day 7 (Saturday, July 19)

MORNING

08:30: Breakfast/Café da manhã

10:00: Depart to Alter do Chão

Rest day: trip to Alter do Chão beach.

Day 8 (Sunday, July 20)

Project fieldwork/data analysis.

Day 9 (Monday, July 21) (Jim Shuttleworth departs)

Project fieldwork/data analysis.

Day 10 (Tuesday, July 22) (Travis Huxman departs)

MORNING: Complete Project data analysis/presentation preparation.

AFTERNOON/EVENING: Student Final Presentations (15 minutes each)

- Amazon soldiers

- Cool cupims

- Red bull

- [Go bicho!](#)

- [Lidar girls+Aleix](#)

- Huxman's marionettes

Day 11 (Wednesday, July 23)

MORNING

8:00: Breakfast/Café da manhã

9:00: Depart to boat dock in Santarém

10:30: Depart on daylong boat trip on the Amazon River