Ecosystem Ecology
Biology 476
Fall semester, 2003
Terry Chapin

I. CONTEXT
The Ecosystem concept (Chapter 1)
Climate and ocean circulation (Chapter 2)
Geology and soils (Chapter 3)

II. MECHANISMS
Ecosystem Water and Energy Balance (Chapter 4)
Photosynthesis (Chapters 5)

MID-TERM EXAM
Plant production processes (Chapter 6)
Decomposition (Chapter 7)
Plant nutrient use (Chapter 8)
Nutrient cycling (Chapter 9)
Aquatic Biogeochemistry (Chapter 10)
Trophic Dynamics (Chapter 11)
Community Effects on Ecosystem Processes (Chapter 12)

MID-TERM EXAM

III. PATTERNS
Temporal variation (Chapter 13)
Landscape heterogeneity (Chapter 14)

IV. INTEGRATION
Global cycles (Chapter 15)
Ecosystem sustainability (Chapter 16)

Review
Final exam

Date
(1) Sept. 5
(2) Sept. 8-10
(2) Sept. 12-15
(2) Sept. 17-19
(2) Sept. 22-24

(2) Oct. 10-13
(3) Oct. 15-20
(2) Oct. 22-24
(3) Oct. 27-31
(2) Nov. 3-5

Nov. 7
(3) Nov. 10-14
(3) Nov. 17-21
(3) Nov. 24-Dec. 1
(3) Dec. 3-8

Dec. 10
Dec. 17
I. CONTEXT
   The Ecosystem concept (Chapter 1)                     Date
   Climate and ocean circulation (Chapter 2)            (1) Sept. 5
   Geology and soils (Chapter 3)                        (2) Sept. 8-10

II. MECHANISMS
   Ecosystem Water and Energy Balance (Chapter 4)     (2) Sept. 17-19
   Photosynthesis (Chapters 5)                         (2) Sept. 22-24

MID-TERM EXAM
   Plant production processes (Chapter 6)              (2) Sept. 29-Oct. 1
   Decomposition (Chapter 7)                           (3) Oct. 3-8
   Plant nutrient use (Chapter 8)                      (2) Oct. 10-13
   Nutrient cycling (Chapter 9)                        (3) Oct. 15-20
   Aquatic Biogeochemistry (Chapter 10)               (2) Oct. 22-24
   Trophic Dynamics (Chapter 11)                       (3) Oct. 27-31
   Community Effects on Ecosystem Processes (Chapter 12) (2) Nov. 3-5

MID-TERM EXAM
   Nov. 7

III. PATTERNS
   Temporal variation (Chapter 13)                     (3) Nov. 10-14
   Landscape heterogeneity (Chapter 14)                (3) Nov. 17-21

IV. INTEGRATION
   Global cycles (Chapter 15)                          (3) Nov. 24-Dec. 1
   Ecosystem sustainability (Chapter 16)                (3) Dec. 3-8

Review                                            Dec. 10
Final exam                                        Dec. 17