Below are major points to know for your exam. Exam questions will come from both lecture and the text book (Chapters 1-4). There will likely be an essay question related to the terms listed under Chapter 1, and an essay about Gustav Fechner (see book questions about Gustav Fechner).

Be familiar with the role of philosophy and physiology in the development of psychology

When proper names are mentioned, be sure to know each in terms of their assumptions, ideas, methods, and major contributions to the field of psychology.

**Chapter 1 – history**

- School of thought
- Zeitgeist
- Paradigm

**Chapter 2 – Philosophical influences on psychology**

- The spirit of mechanism
- The clock metaphor
- Determinism
- Reductionism
- Automata
- People as machines
- The calculating engine
- Empiricism
- Positivism

**Rene Descartes (and his ideas)**

- Definition of mind vs. body
- The mind-body problem
- Function of mind, function of body, mind-body interaction (how interact, what results from this interaction)
- Reflex action theory
- The doctrine of innate ideas
- Derived ideas
- Innate ideas
- Stance on nature/nurture
- Stance on monism/dualism

**John Locke (and his ideas)**

- What is substance and function of mind
- Can have mind without experience?
- Association (how do we learn?)
- Simple ideas
- Complex ideas
- Primary qualities
- Secondary qualities
Locke continued…
Subjective vs. objective reality
Knowledge based on sensation
Knowledge based on reflection
Stance on nature/nurture
Stance on monism/dualism
How do we gain knowledge? Does it reflect reality in the objects?
How views differ from Descartes (e.g., in terms of innate/derived ideas; substance of mind)
How views differ from George Berkeley and David Hume

George Berkeley (and his ideas)
Mentalism
Primary and secondary qualities (what are his beliefs regarding qualities of objects?)
Subjective vs. objective reality
Stance on monism/dualism
Stance on nature/nurture
How do we gain knowledge? Does it reflect reality in the objects?
How views differ from John Locke and David Hume
The association of sensations
Views on depth perception (learned or innate?)

David Hume (and his ideas)
Hume’s skepticism (related to concept of causality)
Stance on primary & secondary qualities
How differ from John Locke and from George Berkeley
Is there an objective reality? Does causality exist?
Impressions and ideas
Hume’s laws of association for mental operations
Resemblance
Contiguity
Causality

Emanuel Kant (and his ideas—see handout)
How does he handle Hume’s skepticism?
What do we know a priori?
What inborn capacities do we have according to Kant? What logic does he use to define inborn capacities?

David Hartley (Associationist)
Association by contiguity and repetition; what results from this?
Stance on monism/dualism
Stance on nature/nurture
How mind & brain interact
Psychophysical parallelism

James Mill (Associationist)
Idea of mental physics
Can complex ideas be reduced back into simple ideas?
What school of psychology does he latter influence?
John Stuart Mill (Associationist)
Mental Chemistry
Creative synthesis
Can complex ideas be reduced back into simple ideas?
What school of psychology does he latter influence?

The Mechanists:  Their assumption of brain and brain function; How differ from the Associationists (in terms of monism/dualism; idea of mind)

La Mettrie
Views on brain function
Stance on monism/dualism
Stance on nature/nurture
How is knowledge obtained
Brain function—in terms of areas
Brain damage/mental ailments

Cabinis
Views on brain function
Stance on monism/dualism
Stance on nature/nurture
How is knowledge obtained
Brain function—in terms of areas
Brain damage/mental ailments
Vitalism
How differ from La Mettrie

Empiricism’s contributions to psychology

Chapter 3 – Physiological Influences on Psychology

Research on Brain Functions (see text and notes—all!)
Internal mapping of brain functions
External mapping of brain functions
Law of specific nerve energies
Bell-Magendie Law

Johannes Muller:
Doctrine of Specific Nerve Energies

Extrirpation method
Clinical method
Electrical stimulation
Phrenology – Francis Gall, Spurzheim
  Procedure used to identify different localized functions of brain
  Flaws in assumptions/procedure
  What type of research did phrenology inspire?
Pierre Flourens
What method did he use?
His opposition to phrenology
Pigeon experiments: How did he use them to depose phrenology?

Broca
What method did he use?
Localization of function

Gustav Fritsch and Eduard Hitzig
Electrical stimulation of the brain

Wernicke
Wernicke’s Area (discussed in class—not of this period)

Herman von Helmholtz (and his ideas)
Helmholtz’s contributions to psychology: Neural impulse, vision, color vision, attention, and audition
Young-Helmholtz theory of color vision

Ernst Weber (and his ideas)
Two-point threshold
Just noticeable difference (JND) and Weber’s Law
How ideas influenced Fechner

Gustav Fechner (and his ideas and contributions to psychology)
Founder of psychophysics
** What was Fechner’s original goal? Was he successful in achieving this goal? Why was his work so important in establishing Psychology as a separate discipline from philosophy? (see text book and notes)
** Fechner’s Law-- Relationship between intensity of stimulus and intensity of sensation (logarthmic relationship)
Mind and Body as a Quantitative relationship
Status of psychophysics today and psychophysical methods developed by Fechner?
Absolute threshold
Differential threshold
Method of average error
Psychophysics as defined today… how different than how Fechner conceptualized originally?

Chapter 4 – The New Psychology

Wilhelm Wundt, his assumptions, ideas, goals, and his contributions to psychology
Why considered “Father of Experimental Psychology”
- How did he get Experimental Psychology established as a separate discipline?
Cultural psychology
Wundt’s study of conscious experience, conscious contents, what are the 2 dimensions of consciousness? Relationship between consciousness and sensations
Voluntarism
Mediate experiences
Immediate experiences
The method of introspection “experimental introspection”
Experimental methods
Reliability of measures
Elements of conscious experience
  Sensations (quality & intensity)
Feelings
Tridimensional theory of feelings
Apperception
Organizing the elements of conscious experience
Wundt’s legacy
According to Wundt: What was the focus of psychology, what were the methods, and what were the goals

Herman Ebbinghaus and Elias Muller: their ideas and contributions to psychology
  Research on learning and memory
  Higher mental processes
  How differ from Wundt’s assumptions of what we can study (higher vs. lower mental processes)
  Nonsense syllables
  Forgetting Curve, savings, etc.
  How conduct studies
  How quantify learning/memory
  How results hold up today
  How did Muller expand on Ebbinghaus’ ideas

Franz Brentano
  Act psychology
  The study of mental acts

Carl Stumpf
  Phenomenology

Oswald Kulpe
  How Kulpe’s methods differed from Wundt’s (higher vs. lower mental processes)
  Systematic experimental introspection
  Assumptions, methods, findings
  Mental set
  Imageless thought
  The Wurzburg School (Laboratory)