**MCB 64 Final Study Guide**

PRACTICE FINALS FROM NATALIAS PAST COURSES:

<http://classes.biology.ucsd.edu/bipn142.WI09/documents/Exam1KEY.pdf>

<http://classes.biology.ucsd.edu/bipn142.WI10/documents/Exam2Key.pdf>

<http://classes.biology.ucsd.edu/bipn142.WI10/documents/Exam3Key>

<http://classes.biology.ucsd.edu/bipn142.WI10/documents/Exam4KEY.pdf>

**Structure:**

Lecture 18:

* Golgi Tendon Organ - measures tension
* muscle spindles - measure muscle length
* Myasthenia Gravis - autoimmune disease, ACh destroyed
* Amyotrophic Lateral Sclerosis - voluntary movement is gone after a few years

Lecture 20:

* How basal ganglia and thalamus interact
* Cerebellum
  + Specifically structures and pathways

Lecture 21:

* Structures of brain and their relation with memory

**List of confusions and questions (New Material):**

* How can we enhance plasticity in adults?
* Gamma loop (pg 443)
* The motor loop (pg 466)

**List of confusions and questions (Old Material):**

* LGN and receptive fields!
* Fluid in cochlea-->neural signal

**Things to know:**

- knee jerk reflex

- Basal Ganglia Diagram

- Retinal diagram - all cells and functions (inhibitory, excitatory, etc)

- Receptive fields (how created, which cells have them, what types)

**References:**

- pg 436 has muscle binding process