**SYLLABUS: BIPN144 - Developmental Neurobiology**

**Professor: Ethan Bier**

**Tu/Th: 3:30-4:50 PM          PETERSON HALL 108          SPRING 2010**

**Office Hours:** Following class, Bonner Hall 4218

**TA’s:**
- **Graduate:** Claire Discenza: [cdiscenz@ucsd.edu](mailto:cdiscenz@ucsd.edu) or [cdiscenz@gmail.com](mailto:cdiscenz@gmail.com)
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- **Undergraduate:**
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**Date** | **Lecture** | **Reading** |
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3/30 | Overview of Neural Development: Model organisms | Ch. 1*, Ch 3† |
4/1 | Dorsal-Ventral Patterning: Invertebrates | Ch. 1*, Ch 3 |
4/6 | Dorsal-Ventral Patterning: Vertebrates | Ch. 1*, Ch 5† |
4/8 | Neural Induction | Ch. 1*, Ch1 3† |
4/13 | Neuronal Competence and Identity | Ch. 1*, Ch 5† |
4/15 | Neural Tube Patterning | Ch. 2,4* |
4/20 | Lateral Inhibition | Ch. 1*, Ch 1,3† |
4/22 | **MIDTERM 1** (Covers material through 4/20 lecture) | |
4/27 | Neural Specification /Localized Determinants | Ch. 4* |
4/39 | Eye Development/Cellular Interactions | Ch. 4*, Ch 4,6† |
5/4 | Neuronal Differentiation -> Cell Movement and Migration | Ch. 3,5* |
5/6 | Axonal Navigation: Ventral Midline | Ch. 5* |
5/11 | Axonal Navigation: Visual System | Ch. 6* |
5/13 | Cell Death | Ch. 7* |
5/18 | Trophic Factors | Ch. 7* |
5/20 | **MIDTERM 2** (Covers material through 5/18 lecture) | |
5/25 | Synapse Formation I: Inupt -> Target | Ch. 8* |
5/27 | Synapse Formation II: Target ->Inupt | Ch. 9* |
6/1 | Synaptic Modifiability | Ch. 9,10* |
6/3 | Learning and Behavior | Ch. 10 |

6/7 | **FINAL EXAM** (Comprehensive) | **3:00 PM – 6:00 PM**

**GRADING:**
- Midterm 1 = 25%
- Midterm 2 = 25%
- Final = 50%

**TEXTS:**

**COURSE WEB SITE:** [http://www.biology.ucsd.edu/classes/bipn144.SP10](http://www.biology.ucsd.edu/classes/bipn144.SP10)