Calendar for Astronomy Picture of the Day discussions. Each topic is listed for the day *after* the lecture on that topic. You are expected to give one 3-minute talk during the course. No more than 2 students can sign up for any day, but you can select from any topic on that day.

```
Day 1-2: Devin & Adam examples
Day 3 (July 8<sup>th</sup>, 2010): Light and Spectra
http://apod.nasa.gov/apod/ap071125.html - Rainbow
http://apod.nasa.gov/apod/ap070505.html - Galaxy in many colors
http://apod.nasa.gov/apod/ap070624.html - Solar Spectrum
Day 5 (July 12<sup>th</sup>, 2010): Gravity, Motion, and Doppler Shift
http://apod.nasa.gov/apod/ap090104.html - Redshifted Spectra
http://apod.nasa.gov/apod/ap070114.html - Galactic Center orbits
(http://www.astro.ucla.edu/~ghezgroup/gc/pictures/orbitsMovie.shtml)
Day 6 (July 13<sup>th</sup>, 2010): Telescopes, & Lookback Time
http://apod.nasa.gov/apod/ap100312.html - James Webb Space Telescope
http://apod.nasa.gov/apod/ap090525.html - Hubble Space Telescope
http://apod.nasa.gov/apod/ap090403.html - Telescopes around the world
http://apod.nasa.gov/apod/ap020311.html - Green Bank Telescope
http://apod.nasa.gov/apod/ap060514.html - Very Large Array
Day 7 (July 14<sup>th</sup>, 2010): Parallax & Distance
http://apod.nasa.gov/apod/ap960110.html - Cepheids in M100
Day 8 (July 15<sup>th</sup>, 2010): The Sun
http://apod.nasa.gov/apod/ap100316.html - Corona
http://apod.nasa.gov/apod/ap100228.html - Pauli Exclusion Principle
http://apod.nasa.gov/apod/ap100609.html - The Sun
Day 10 (July 19<sup>th</sup>, 2010): Stars and Fusion
http://apod.nasa.gov/apod/ap100211.html - Open cluster M34
http://apod.nasa.gov/apod/ap100106.html - Betelgeuse
Day 11 (July 20<sup>th</sup>, 2010): Stars: stellar life cycle and the HR diagram
http://apod.nasa.gov/apod/ap100204.html - Dust & Birth in Perseus
http://apod.nasa.gov/apod/ap100331.html - Omega Centauri Globular Cluster
http://apod.nasa.gov/apod/ap100426.html - Pillars & Outflows in Carina
Day 12 (July 21<sup>st</sup>, 2010): Stellar death, White Dwarves, Neutron Stars, Black Holes
http://apod.nasa.gov/apod/ap100221.html - NGC 2440 - Planetary Nebula forming
http://apod.nasa.gov/apod/ap100411.html - IC 418 - The Spirograph Nebula
http://apod.nasa.gov/apod/ap100425.html - Mz3 - The Ant Nebula
http://apod.nasa.gov/apod/ap100501.html - Pulsar Nebula PSR B1509-58
Day 13 (July 22<sup>nd</sup>, 2010): The Interstellar Medium
http://apod.nasa.gov/apod/ap100112.html - Flame Nebula
http://apod.nasa.gov/apod/ap100113.html - Spider and Fly
http://apod.nasa.gov/apod/ap100214.html - Rosette Nebula
http://apod.nasa.gov/apod/ap100302.html - M78 and Orion
Day 15 (July 26<sup>rd</sup>, 2010): Galaxies: The Milky Way
http://apod.nasa.gov/apod/ap100125.html - The Magellanic Stream
http://apod.nasa.gov/apod/ap100320.html - The Milky Way from the ground
```

```
http://apod.nasa.gov/apod/ap081110.html - The Galactic Center
Day 16 (July 27<sup>th</sup>, 2010): Galaxies: Others
http://apod.nasa.gov/apod/ap100107.html - The Small Magellanic Cloud Dwarf Irregular
http://apod.nasa.gov/apod/ap100109.html - Andromeda Spiral
http://apod.nasa.gov/apod/ap100114.html - M94 Spiral
http://apod.nasa.gov/apod/ap100520.html - M87 Elliptical
Day 17 (July 28<sup>th</sup>, 2010): Galaxies: Groups, Clusters, & Dark Matter
http://apod.nasa.gov/apod/ap100121.html - NGC 7771 group
http://apod.nasa.gov/apod/ap100222.html - Hickson Group 31 mergers
http://apod.nasa.gov/apod/ap100529.html - Black Holes in mergers
http://apod.nasa.gov/apod/ap080917.html - MACSJ0025 Galaxy Cluster merger
http://apod.nasa.gov/apod/ap080823.html - The Bullet Cluster
Day 18 (July 29<sup>th</sup>, 2010): Clusters & Large Scale Structure
http://apod.nasa.gov/apod/ap100502.html - Coma Cluster
http://apod.nasa.gov/apod/ap090716.html - Hercules Cluster
http://apod.nasa.gov/apod/ap070516.html - Cluster CL0024+17
Day 20 (August 2<sup>nd</sup>, 2010): Large Scale Structure & The Distance Ladder
http://apod.nasa.gov/apod/ap091028.html - Furthest galaxy cluster
http://apod.nasa.gov/apod/ap070827.html - Void
http://apod.nasa.gov/apod/ap031028.html - Sloan large structure
http://apod.nasa.gov/apod/ap071211.html - The Universe nearby
Day 21 (August 3<sup>rd</sup>, 2010): Cosmology & CMB
http://apod.nasa.gov/apod/ap030212.html - WMAP CMB
http://apod.nasa.gov/apod/ap031231.html - WMAP CMB & the age of the universe
http://apod.nasa.gov/apod/ap061007.html - COBE CMB
Day 22 (August 4th, 2010): Expansion/Fate of the Universe & Dark Energy
http://apod.nasa.gov/apod/ap010404.html - Type Ia and expansion
http://apod.nasa.gov/apod/ap060307.html - Type Ia in M100
http://apod.nasa.gov/apod/ap040227.html - Many Type Ia
Day 23 (August 5<sup>th</sup>, 2010): Big Bang & Inflation
http://apod.nasa.gov/apod/ap100103.html - Casimir Effect
http://apod.nasa.gov/apod/ap060323.html - "Inflating the Universe" diagram
http://apod.nasa.gov/apod/ap000503.html - BOOMERANG CMB
Additional topics for week 5: Spacetime & Relativity
http://apod.nasa.gov/apod/ap100207.html - Einstein Cross Gravitational Lens
http://apod.nasa.gov/apod/ap090921.html - Cluster gravitational lens
http://apod.nasa.gov/apod/ap050601.html - White Dwarves making gravity waves
```

http://apod.nasa.gov/apod/ap100322.html - The Milky Way in cold dust