



ASTR 391

Week 1, Lecture 1

Prof. Ian Crossfield

SAN FRANCISCO
FLEET YARDS



UNITED FEDERATION
OF PLANETS

USS DISCOVERY

• CROSSFIELD CLASS •

STARFLEET REGISTRY NCC-1031

Starfleet Command: A. Kurtzman, G. Berg, A. Harberts, A. Goldsman, H. Kadin, C. Sweeny, B. Fuller, J. Alexander, A. Coleite, J. Menosky, T. Sullivan, A. Baiers, N. Meyer, F. Siracusa, J. Weber, B. Kim, E. Lippoldt, K. Beyer, S. Cochran, K. Powers, Fleet Ops: O. Osunsanmi, K. Lafferty, D. Till, K. Orfanidis, J. Gayford, M. Simkin, O. Sitowitz, G. Phillips, G. Hetrick, N. Page, M. Suskin, J. Zimmerman, Research & Development: A. Maranville, M. Goldstein, T. Dinucci, B. Schultz, C. Silvestri, J. Gross, R. Johnson, C. Danby, A. Trifunovic, C. Gebacz, K. Felton-Lui, C. Dowling, D. Biagi, K. Tchaikovsky, E. Sampson, K. Gross, T. Grove, Science Ops: T. Cherniawsky, M. Steel, G. Chown, G. Navarro, C. Hault, D. Tiernan, G. Hemwall, L. Hodgson, R. Colucci, T. Singh, K. McCord, R. Vivian, B. Fifield, M. Carella, S. Sealey, R. Fraser, T. I. Staley, F. Tata, R. Reed, D. Cummings, C. Penman, I. Allemang, J. Dudkowski, S. Gamzon, Tactical Ops: S. Stanley, W. Budge, N. Peschlow, A. Tsang, A. Haye, M. Morgan, D. Norton, E. Poulin, T. Peel, R. Denning, K. Brock, J. Eaves, T. Pringle, S. Schneider, B. Rendulic, R. Lai, B. Daprato, M. Moreira, J. Murray, M. Simonelli, J. Kirk, P. Nicolakakos, Yard Engineers: D. Stapf, K. Berg, J. McNamara, O. Neir, D. Feldheim, L. Miller, L. Metrose, K. Hall, J. Henry, Chiefs of Staff: R. Roddenberry, T. Roth, CNC: Gene Roddenberry

"All things can be understood once they are discovered;
the point is to discover them."

• Course website:

https://crossfield.ku.edu/A391_2024A/

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ASTR 391 -- Spring 2024

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- [Syllabus, schedule, and other docs](#)
- [PSets and solutions](#)
- [Lecture notes](#)
- [Relevant Readings](#)
- [Exams & Review Paper](#)

Syllabus and schedule

- [Syllabus \(PDF\)](#)
- [Course Textbook \(PDF\) \(by Choudhuri\)](#)

PSets and solutions

No.	Topics	Pset	Due	Solutions
Zero	Start-of-course survey	Pset	Jan 21	
**	Extra Credit: Sky Show/Planetarium Show Form (more info here)	Form	Last week of class.	

Course Outline

No.	Date	Topic and/or Reading Selections	Lecture Notes
1 - W1L1	2024/01/17	Introduction to astronomy. Orders of magnitude; magnitudes. Types of objects and observations. Reading: <i>Choudhuri, Ch. 1</i>	Lecture Notes (PDF) .
2 - W1L2	2024/01/19	Intro to astrophysics. Common quantities, forces, and particles. Reading: <i>Choudhuri, Ch. 1</i>	Ibid

External Readings

Course Structure:

- Intro to astronomy
- Light & radiation
- Stars: stellar interiors & evolution
- Galaxies and beyond

You will need to:

- Do the readings before each lecture.
- Take notes on class discussions.
- Ask questions.
- Work together.

Course assessment:

- Problem Sets
- 2 Midterms
- Review Paper
- CV/Resume
- Talk Report
- Final

Don't get zeroes: **Any assignment** can be turned in late for up to 70% credit.

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Don't get an F in astrophysics like Captain Pike did!

First assignments:

1) Background survey (due Friday, Jan 19)

Planetarium Shows Tomorrow:

Shows at
2pm, 3pm,
4pm at
Slawson G174

The screenshot shows the KU Events Calendar interface. At the top left is the KU logo and the text 'KU Events Calendar'. On the top right is a search bar with the placeholder text 'Search Events, Departments, Places'. Below the header is a breadcrumb trail: 'The University of Kansas > Thursday, January 18 > Planetarium Extravaganza!'. The main content area features a white card with the event title 'Planetarium Extravaganza!' and the date 'Thursday, January 18, 2024 2pm to 4pm'. A dark blue button labeled 'I'M INTERESTED' is positioned below the date. To the right of the card is a promotional graphic with a dark blue starry background, a white silhouette of a building, and the text 'WINTER WELCOME!' in large blue letters. A snowflake icon is in the bottom right corner of the graphic.