# Python, Jupyter Notebook and Github for Astronomy

## Learn the python software language.  Use it for your STEM career.

Python has become the language of astronomy and astrophysics research – as well as other sciences and engineering. Join our new Boyce-Astro seminar to get a start in python. As part of this curriculum, we will explore the lifetimes of stars using the Hertzsprung Russell diagram (HRD). We will then learn how to query large amounts of data from the Gaia, Kepler satellite databases using Python within a Jupyter Notebook. We will then analyze and filter this data to plot HRDs for thousands of stars in our immediate solar neighborhood and distant globular clusters.

The seminar will introduce you to Python, Markdown Syntax, Jupyter Notebook and much more during the 5 sessions planned. If Mother Nature cooperates, we might even do a live stream from The Bush Telescope located in Washington State!

Our instructor, Chandru Narayan, is a long-time amateur astronomer and currently teaches Computer Science and Astronomy at The Bush School, Seattle, Washington [https://www.bush.edu/].

| **BOYCE-ASTRO ONLINE SEMINARS** | | | |
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| **FALL SEMESTER 2023** | | | |
| **Python, Colab, and Github for Astronomy Seminar  -- for graduates of IntroSTARS™** | | | |
| IntroSTARS is an online course in preparation for Boyce-Astro Seminars - Sign up at Boyce-Astro.org | | | |
| **MOD.** **TOPIC -** The instrucor may slightly modify the order & content | **WHEN** | **DATE** | **WHERE** |
| 1 — Lifetime of Stars - Hertzsprung Russell Diagram review | Thursday, 7:00 - 8:00 PM PT | 19-Oct-23 | Google Meet |
| 2 — Python, Google Colab, and Github for Astronomy | Thursday, 7:00 - 8:00 PM PT | 26-Oct-23 | Google Meet |
| 3 — Query/Filter Astro Databases, Analysis, Plotting | Thursday, 7:00 - 8:00 PM PT | 2-Nov-23 | Google Meet |
| 4 — Project: HRD of Globular Cluster or Solar Neighborhood | Thursday, 7:00 -8:00 PM PT | 9-Nov-23 | Google Meet |
| 5 — Show and Tell: Present Your Results | Thursday, 7:00 - 8:00 PM PT | 16-Nov-23 | Google Meet |

Completing IntroSTARS™ or another Boyce-Astro Seminar is the prerequisite for the seminar.
If you have not taken our FREE IntroSTARS™ or another seminar, please sign up here by October 7:
https://boyce-astro.org/introstars-your-step-1/

The IntroSTARS Quiz to qualify for this Python for Astronomy seminar will be sent to you on October 13 and will be due back by October 17. Those who have already passed the Quiz or have taken another Boyce-Astro Seminar, need not take the IntroSTARS Quiz again.

The course fee is $29 and will be due before October 26, 2023.
The course fee will be waived for students who are recommended by their STEM instructor.
The class size is limited to 20. High school and college students have preference.

## Click Here to Register