Abstract Submitted
for the GEC18 Meeting of
The American Physical Society

A new online training course in laboratory spectroscopic diagnostics developed at Auburn University.[1] IVAN ARNOLD, STUART LOCH, ED THOMAS, Auburn University, SHAWNDRA BOWERS, ANDREW LEE, ROLAND DEWITT, JEREMY ROBERTS, ASIM ALI, AU Online — We report on the launch of a new web-based training course, "Introduction to Spectral Diagnostics", developed at Auburn University as part of the Connecting the Plasma Universe to Alabama (CPU2AL) grant funded by NSF EPCSoR. The course focuses primarily on the use of optical emission spectroscopy as a tool to diagnose plasma parameters using the Generalized Collisional-Radiative method. The course is designed using education research principles. We use self-paced, web-based training modules to provide students with the necessary background physics, mathematics, laboratory techniques, and introductory coding skills to implement these skills in a laboratory setting. The course includes some training videos on spectrometer use, interactive visualization tools, and video-based worked examples. The course is also designed for future expansion into more specialized spectroscopy topics. This course can provide digital certification for industry partners. It is offered as a fee-based service, but discounts are available for educational partners. The Auburn Online course development team was instrumental in providing instructional design, graphic design, software development, video production, and deployment of this training course

[1]This work is supported by the NSF EPSCoR program through grant number OIA-1655280.

N Ivan Arnold
Auburn Univ

Date submitted: 15 Jun 2018 Electronic form version 1.4