Should I take ECE 342 with ECE 343

Relevancy:

ECE 342 and 343 provides fundamental concepts for IC circuits. ECE 343 is designed to complement the materials covered in 342 where students can exercise these materials through Cadence PSpice simulation. ECE 343 starts off with basic circuits like CMOS inverters and ends with a CMOS Op-Amp. Students who take 343 along with 342 will usually have a better understanding in 342.

Workload:

Taking 343 along with 342 doesn't add too much additional workload to students schedule. The lab is split into four projects with each one consists of multiple phases. Students will be using PSpice to simulate circuits as well as actual bench tests to retrieve datas. Lab reports are due at the end of each project, so students will have roughly two to three weeks to work on it. It is encouraged for students to work on these reports on a per phase basis as the lab report could get very complicated and time consuming.

Recommendation:

Anyone with an interest in circuit designs should take these two concurrently as they enforce both theoretical and physical concepts. ECE 343 provides actual circuit simulations allowing students to observe how the circuit reacts to certain parameter while ECE 342 covers the theoretical concepts of MOSFET, BJTs, and other circuit components. The experience in 343 can help students prep for ECE 483 (Analog IC design).