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An undergraduate view of a second year course in physics[1] FARID SALAZAR, JOSUAN CALDERON, PEDRO SOTO, Florida International University, SRUTHI NARAYANAN, Massachusetts Institute of Technology — The three authors of this poster who are undergraduate students at FIU worked on the contents of a book as part of an independent study. The fourth author, an undergraduate student at MIT, worked on it remotely. The book was written solely by undergraduate students in physics for undergraduates in physics. It assumes a good knowledge of basics calculus and physics. It covers special relativity starting from Maxwell's equations, black body radiation and the need for quantum mechanics, bound states in quantum mechanics including a model for conductors, insulators and semi-conductors. The book proceeds to discuss basics ideas in statistical mechanics. The problem of free fermi gas and free bose gas is completely worked out. The book ends with a discussion of quantum mechanics in higher dimensions and the need for symmetry operators. The poster shows a flow chart of the topics.

[1]Society of Physics Students, FIU

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