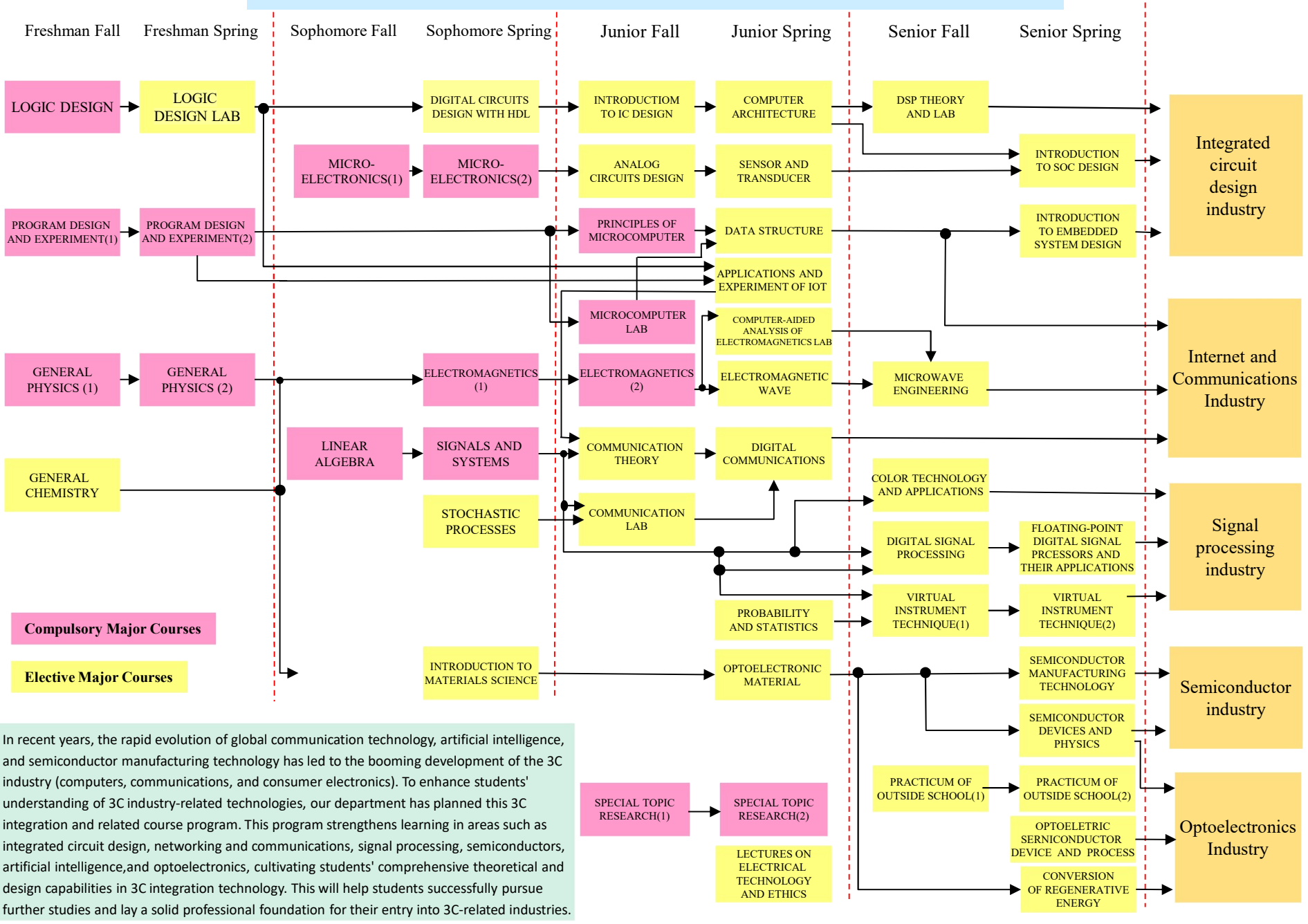
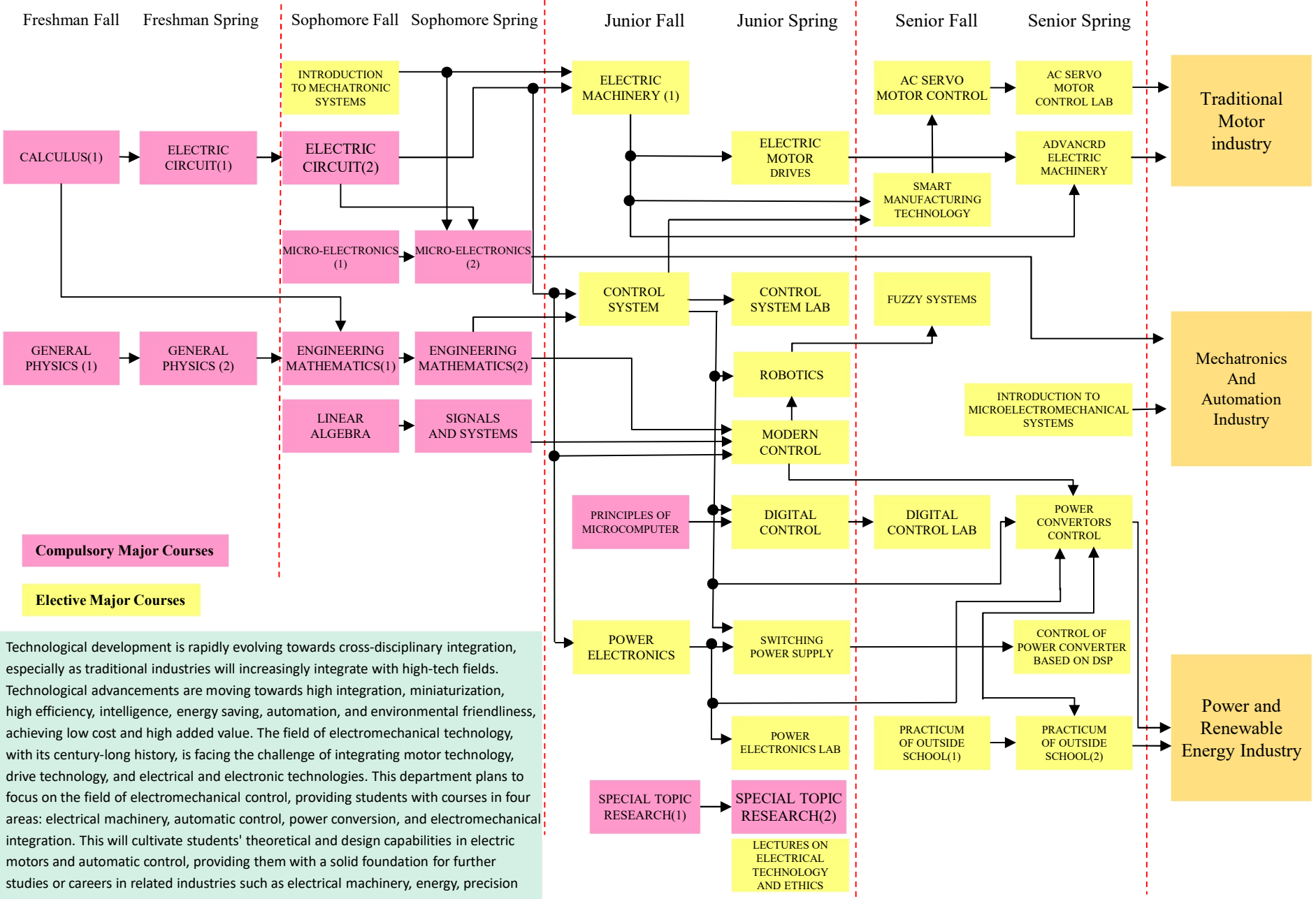
Curriculum Roadmap for 3C Integration Field(University A.B.C)



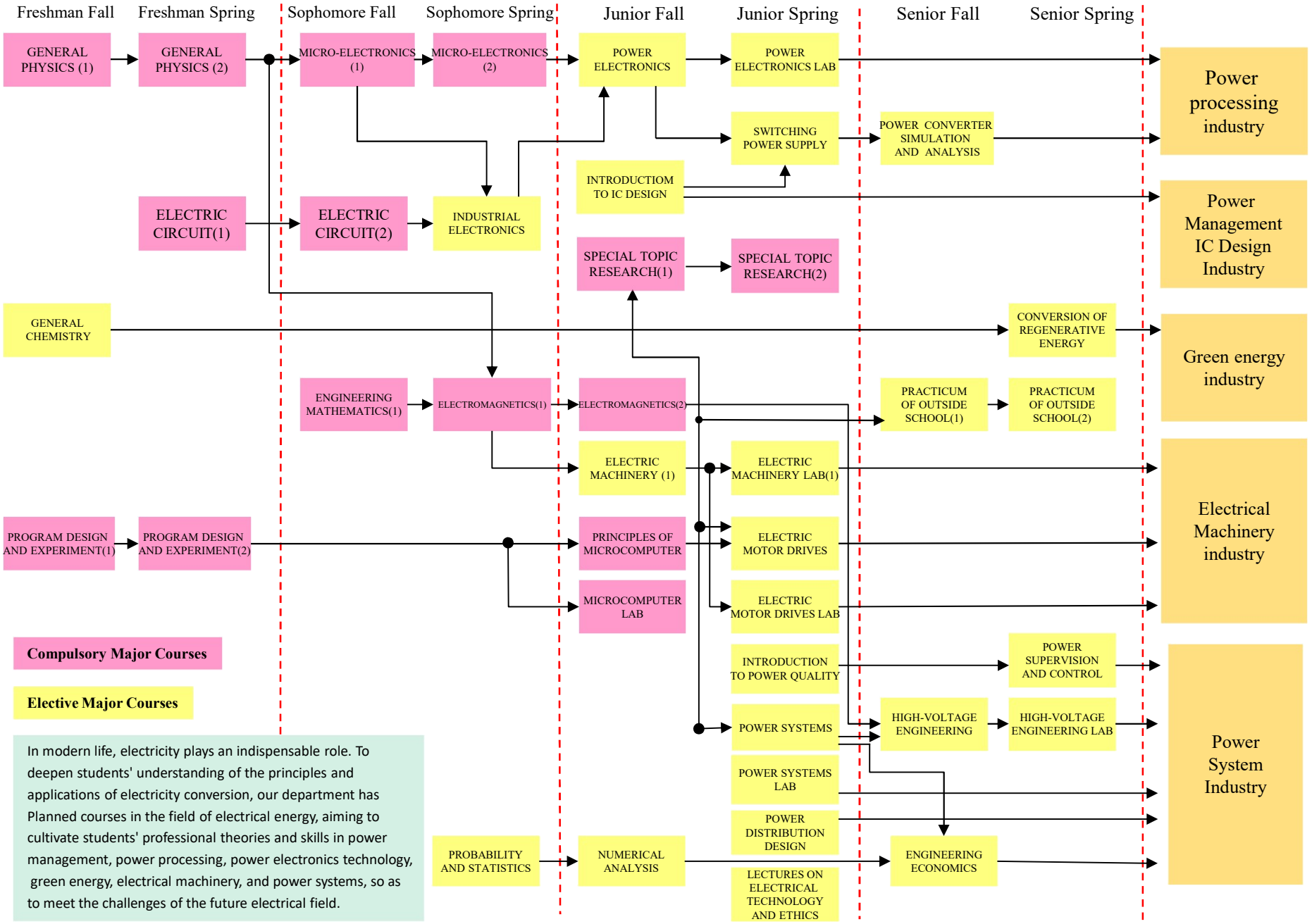
In recent years, the rapid evolution of global communication technology, artificial intelligence, and semiconductor manufacturing technology has led to the booming development of the 3C industry (computers, communications, and consumer electronics). To enhance students' understanding of 3C industry-related technologies, our department has planned this 3C integration and related course program. This program strengthens learning in areas such as integrated circuit design, networking and communications, signal processing, semiconductors, artificial intelligence,and optoelectronics, cultivating students' comprehensive theoretical and design capabilities in 3C integration technology. This will help students successfully pursue further studies and lay a solid professional foundation for their entry into 3C-related industries.

Curriculum Roadmap for Mechatronic Control Field(University A.B.C)



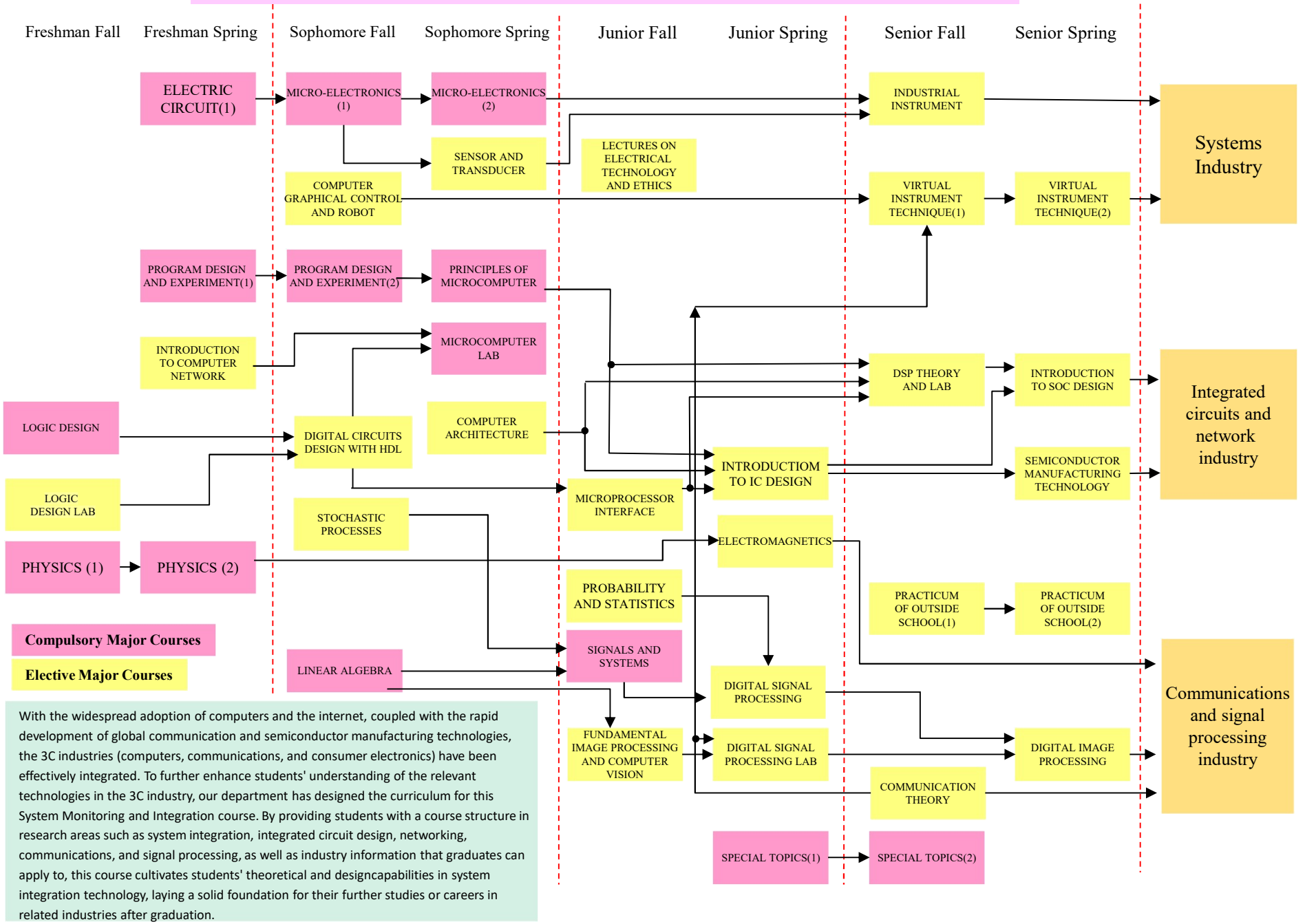
Technological development is rapidly evolving towards cross-disciplinary integration, especially as traditional industries will increasingly integrate with high-tech fields. Technological advancements are moving towards high integration, miniaturization, high efficiency, intelligence, energy saving, automation, and environmental friendliness, achieving low cost and high added value. The field of electromechanical technology, with its century-long history, is facing the challenge of integrating motor technology, drive technology, and electrical and electronic technologies. This department plans to focus on the field of electromechanical control, providing students with courses in four areas: electrical machinery, automatic control, power conversion, and electromechanical integration. This will cultivate students' theoretical and design capabilities in electric motors and automatic control, providing them with a solid foundation for further studies or careers in related industries such as electrical machinery, energy, precision machinery, and automation after graduation.

Curriculum Roadmap for Electric Power Field (University A.B.C)



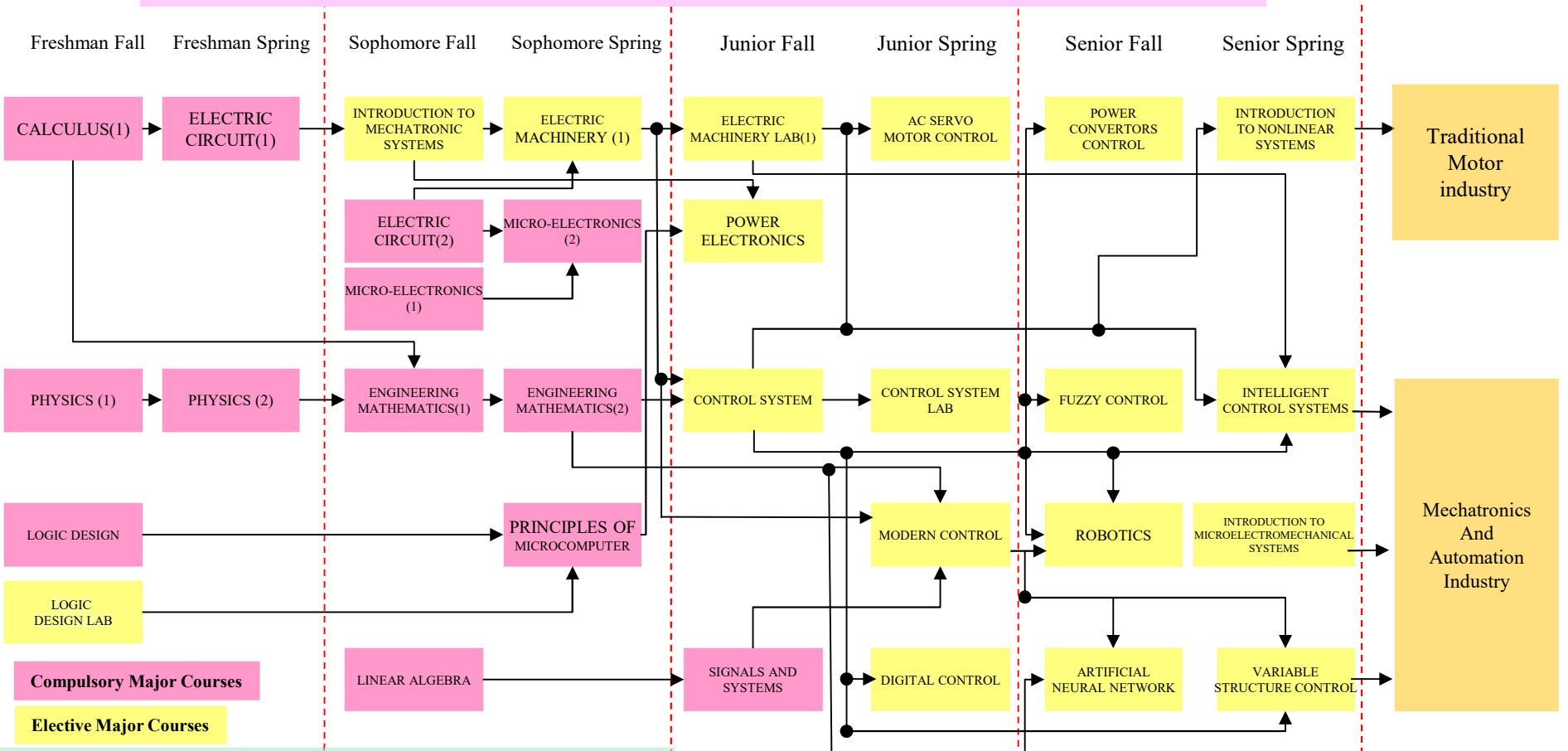
In modern life, electricity plays an indispensable role. To deepen students' understanding of the principles and applications of electricity conversion, our department has Planned courses in the field of electrical energy, aiming to cultivate students' professional theories and skills in power management, power processing, power electronics technology, green energy, electrical machinery, and power systems, so as to meet the challenges of the future electrical field.

Curriculum Roadmap for 3C Integration Field(University D)



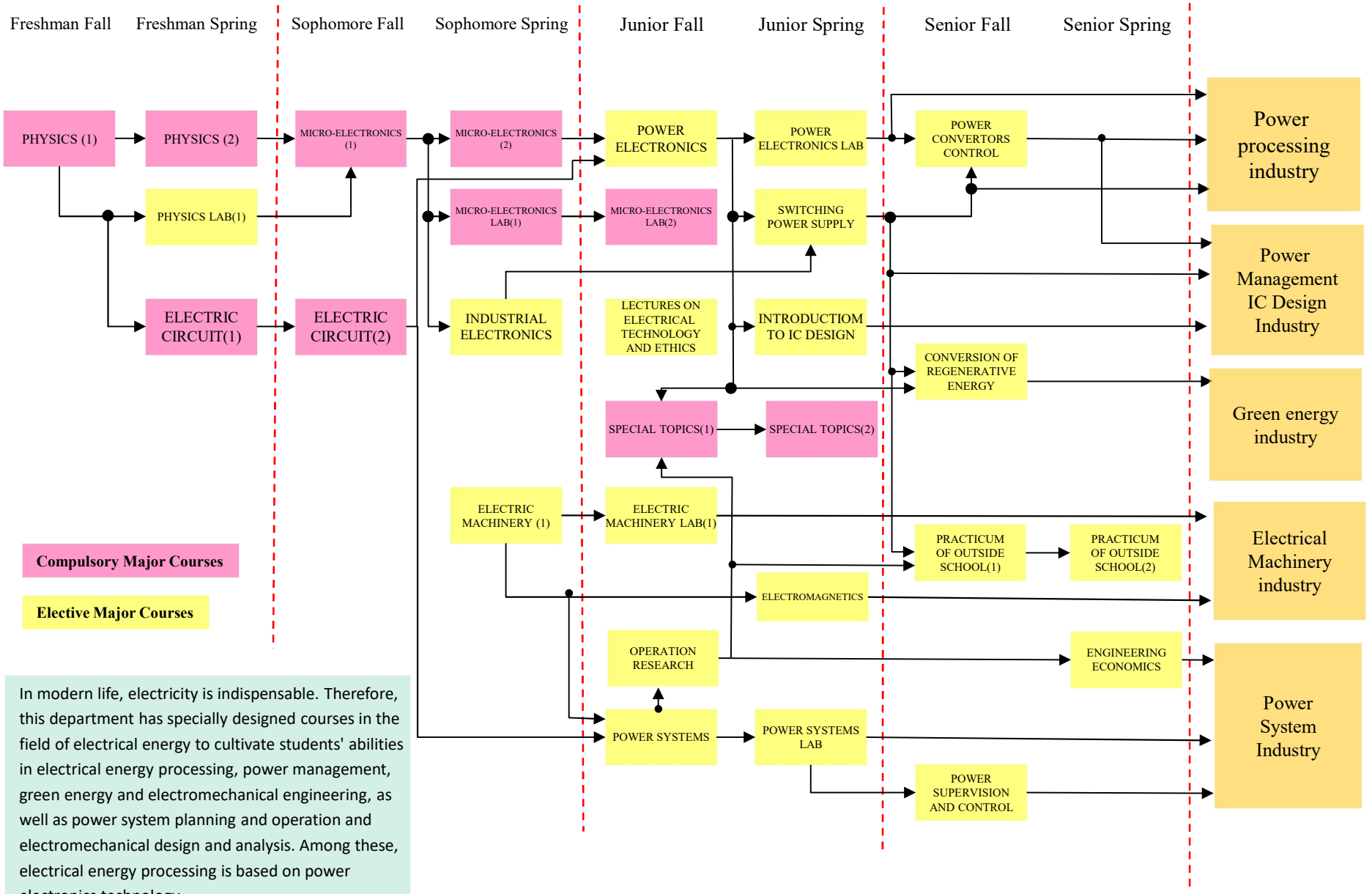
With the widespread adoption of computers and the internet, coupled with the rapid development of global communication and semiconductor manufacturing technologies, the 3C industries (computers, communications, and consumer electronics) have been effectively integrated. To further enhance students' understanding of the relevant technologies in the 3C industry, our department has designed the curriculum for this System Monitoring and Integration course. By providing students with a course structure in research areas such as system integration, integrated circuit design, networking, communications, and signal processing, as well as industry information that graduates can apply to, this course cultivates students' theoretical and designcapabilities in system integration technology, laying a solid foundation for their further studies or careers in related industries after graduation.

Curriculum Roadmap for Mechatronic Control Field(University D)



In response to the trends of digitalization and globalization in recent years, technological development is moving towards cross-disciplinary integration, while the future development of traditional industries is moving towards integration with high-tech fields. Technologically, development is moving towards high integration, refinement, intelligence,energy saving, automation, and environmental protection, resulting in low costs and high added value. Therefore, although the field of electromechanical technology has a history of over a century , it is facing technological upgrades such as electromechanical integration and precision control, with automatic control being a key technology. To enable students to learn related technologies in the automatic control industry, this department has planned this Automatic Control program, providing students with courses in electromechanical integration and automatic control, cultivating their theoretical and design capabilities in automatic control, which will help lay a foundation for students to continue their studies or work in related industries such as electromechanical integration, automation, precision machinery, and power processing after graduation.

Curriculum Roadmap for Electric Power Field (University D)



In modern life, electricity is indispensable. Therefore, this department has specially designed courses in the field of electrical energy to cultivate students' abilities in electrical energy processing, power management, green energy and electromechanical engineering, as well as power system planning and operation and electromechanical design and analysis. Among these, electrical energy processing is based on power electronics technology.