

Frequently Asked Questions

4/1 Program with Clarkson University

Last Updated: August 2018

- ***What is this document? Where can I get for more information?***

This document is an unofficial guide for students at Siena College *considering* the 4/1 Program; it is *not* a replacement for speaking at length with your academic advisor and with the Associate Dean of Engineering at Clarkson University, Hugo Irizarry-Quinones (518-631-9882, hirizarr@clarkson.edu). At Siena you may also reach out to Prof. Michele McColgan (mmccolgan@siena.edu) in the Physics Department if you have specific questions not answered below. Finally, you should reach out to your peers at Siena who have already started taking classes at Clarkson as part of the 4/1 Program—their experiences are an invaluable resource!

- ***What is the 4/1 program?***

The 4/1 Program is an articulation between Siena College and Clarkson University which allows undergraduate students pursuing their BS in Physics, Environmental Science, Computer Science, Computational Science, or Mathematics to take graduate-level courses at the Capital Region Campus (CRC) of Clarkson University in Schenectady, NY, giving them a jump on obtaining their engineering masters degree in just one additional year (hence, the “4/1 Program”). You may take up to three courses at Clarkson as part of your Siena tuition (i.e., without paying any additional fees). In addition, the courses you take at Clarkson may also satisfy your upper-level major course requirements, although that depends on the course and your department—see your academic advisor for details.

- ***What engineering degrees are available?***

The three Master of Science (M.S.) programs currently available to Siena students are Electrical Engineering (MSEE), Engineering and Management Systems (MSEM), and Energy Systems (MSE). Quoting from the program catalog, the MSEE program “explores technologies and industry opportunities in modern electric machinery, modeling and control of power electronics.” The MSEM program integrates “engineering and/or information systems technologies with the core components of an MBA, including Business of Energy Program courses.” And the MSE degree enables “students to integrate (1) mechanical/electrical energy related courses, (2) mechanical and electrical fundamental discipline courses, and (3) non-technical courses regarding the impact of environmental, economic, and regulatory issues on energy.”

- ***What about Mechanical Engineering?***

The mechanical engineering masters track (Master of Science in Mechanical Engineering, MSME) is an option that Siena College and Clarkson University are still discussing, so be sure to ask your academic advisor for the latest information. However, it is *possible* that students majoring in applied physics may be able to pursue a masters in mechanical engineering after they have completed some supplemental undergraduate mechanical engineering courses at RPI, Clarkson University, or Union College.

- ***When can I start taking classes at Clarkson?***

Students can start taking classes as soon as they have room in their schedule, typically in their junior or senior year. Although these are not formal prerequisites, for the more technical electrical engineering courses (e.g., *Linear Control Systems*) it is strongly recommended that students have completed all three semesters of calculus, differential equations, and either linear algebra or applied mathematics (ideally, both), as well as some experience with Matlab/Simulink. By contrast, some of the business-oriented courses (e.g., *Fundamentals of the Business of Energy*) may be taken without having completed as much math, although they are still graduate-level courses and require a significant amount of work. Finally, some courses like *Wind Energy Engineering* are more project-based, and can therefore be taken as early as a student's junior year.

- ***When are the academic terms at Clarkson?***

Unlike Siena, the Capital Region Campus of Clarkson University is (currently) on a 10-week trimester system.¹ The fall, winter, and spring trimesters are roughly from early September to late November, early January to mid-March, and early April to early June, respectively. (Please note that only the fall term is aligned with the housing term at Siena; therefore, if you do not live locally—and need to take winter and/or spring courses—you will need to consider where you will live while taking courses at Clarkson.) In addition, there is typically a summer session of selective classes from mid-June to the end of August. The classes typically take place during the week and in the evening. The average class size is around 12 students.

- ***What classes are offered? What are the prerequisites?***

The courses available varies somewhat from year-to-year, so you should ask your advisor and/or Dean Irizarry-Quinones for the latest course schedule, and whether you are ready to start taking courses. Some of the courses our students have taken (and when they are typically offered) include *Electromechanical Energy Conversion* (fall, technical), *Electronic Power Conversion* (winter, technical), *Linear Control Systems* (fall, technical), *Fundamentals of Business of Energy* (online, offered frequently), *Solar Energy Engineering* (winter, project-based), *Wind Energy Engineering* (spring, project-based).

- ***How do I register for classes? What are the minimum requirements?***

A minimum cumulative 3.0 GPA is generally required before a student can take a graduate-level class, although exceptions may be made on a case-by-case basis.

In order to register for one or more classes you must complete (each term you are taking classes) the Registration Form specifically designed for Siena students. The second page

¹Please be aware that the CRC campus is moving to a semester system most likely in Fall 2019, although the courses will still likely be the same duration.

of this registration form has detailed instructions which should be followed carefully, but basically you will need the signature of your academic advisor, the Assistant Dean of the School of Science, Angela McKeever (Roger Bacon Hall 212, mckeever@siena.edu), and the Siena College Registrar, Jim Serbalik (Siena Hall 102, serbalik@siena.edu) before it is sent to Clarkson University. You will also need to send an unofficial transcript directly to Dean Irizarry-Quinones for his review and approval. Be sure to get the registration form signed and submitted well in advance of the start of classes!

- ***How do I get credit for these classes on my CAPP report?***

The classes you take at Clarkson as part of the 4/1 Program are cross-registered with your Siena schedule. Therefore, they count toward your full-time status as a student and appear on your schedule, transcript, and CAPP report, without any additional fees.

- ***Are there research opportunities?***

Unfortunately there are no research opportunities, although you should speak with Dean Kozik early and often about possible paid and unpaid internships.

- ***What happened to Union Graduate College?***

In January 2016 Union Graduate College became the Clarkson University Capital Region Campus, a satellite campus of Clarkson University which is located in Potsdam, NY.