

# Process Control Minor

The Process Control minor will allow students to gain education in the broad skill set required of a process control engineer. These skill sets include computer programming, electronics and circuits, signal analysis, instrumentation, process modeling, and logic as applied to the chemical and paper industries. The minimum cumulative gpa of 2.00 is required for all courses in the minor. A minimum of 19 semester hours are required. None of these courses may be taken on a credit/no credit basis.

## Program Requirements

(19 credit hours minimum)

Code	Title	Credit Hours
<b>Required courses</b>		
CHM 142 & CHM 145	College Chemistry and College Chemistry Laboratory	5
CPB 204	Mass and Energy Balances I	2
Select one of the following:		3
CSE 174	Fundamentals of Problem Solving and Programming	
CPB 324	Chemical and Bio- Engineering Computation and Statistics	
MME 201 & MME 202	Modeling and Design in Engineering and Numerical Methods in Engineering	
Select one of the following:		4-7
ECE 205 & ECE 314	Electric Circuit Analysis I and Elements of Robotics	
ECE 205 & MME 305	Electric Circuit Analysis I and Measurements and Instrumentation	
PHY 292 & PHY 294	Electronic Instrumentation and Laboratory in Electronic Instrumentation	
Select one of the following:		3
CPB 482	Process Control	
ECE/MME 436	Control of Dynamic Systems	
<b>Courses for Majors/Non-majors</b>		<b>2-3</b>
CPB majors select:		
CPB 451	Unit Operations Laboratory	
CPB non-majors select:		
CPB 451 & CPB 477	Unit Operations Laboratory and Independent Studies <sup>1</sup>	
<b>Total Credit Hours</b>		<b>19-23</b>

<sup>1</sup> Concurrent enrollment in CPB 451 & CPB 477 with approval from CPB department.