

MANUFACTURING PROCESS PRINCIPLES AND PRODUCTION ACTIVITY CONTROL

Thursday, August 20 | 8:30 AM—12:30 PM | Duquesne University Rockwell Hall

This course links strategic supply chain planning to operational execution and shop floor realities. Gain a practical framework to understand factory structures, production scheduling and control, and to assess and question supplier capacity and lead-time data.

TOPICS

- Review the three lenses of manufacturing: what we make, how we make it, and how the floor is arranged. These decisions define lead time, cost, and supplier risk.
- Study manufacturing environments: Engineer to Order, Make to Order, Assemble to Order, and Make to Stock.
- The Product-Process Matrix: how volume and variety determine where inventory sits, how orders are triggered, and how responsive a factory can be.
- Value Stream Mapping exercises
- Manufacturing Processes: Project, Work Center, Batch, Line, and Continuous. Examine each process type through a capacity-and constraint lens — where bottlenecks form, how scheduling must respond, and what breaks throughputs.
- Fixed Position, Functional (Job Shop) Cellular, and Product-Based. How layout determines queue time, WIP levels, and flow speed.
- Quality Work Center Metrics (efficiency, utilization, OEE, FTT), Finite Scheduling and Capacity Management, Scrap and Rework Measurement, and Corrective Action Process.

In this course, you will learn how to:

- **Classify suppliers or factories by environment, process type, and layout.**
- **Explain how each choice drives lead time, cost, capacity, and flexibility.**
- **Identify constraints and bottlenecks using value stream mapping.**
- **Apply production on activity control tools: scheduling, dispatching, and performance metrics.**
- **Challenge supplier lead times and capacity claims with structured questions.**



Instructor: Bill Geisler

Bill is an ASCM Certified Instructor with over 25 years of experience in supply chain and operations management. In this course, Bill brings practical, real-world insight to order release, scheduling, and shop floor control, equipping participants with tools to improve execution, visibility, and operational performance.

Earn 4 Continuing Education Hours

PRICE: \$300

REGISTER: <https://apicspgh.starchapter.com/meetinginfo.php>

Note: Companies sending five or more employees are eligible for a 10% discount. A minimum of five registrants are required or the class may be cancelled.



Presented by The Palumbo-Donahue School of Business in collaboration with ASCM-Pittsburgh Forum