



Health and Humanitarian Systems

2026 Professional Certificate Program in Health & Humanitarian Supply Chain Management (HHSCM)

Course Instructors:

- [Dr. Ozlem Ergun](#), Professor of Mechanical and Industrial Engineering, Northeastern University; Co-founder, Center for Health & Humanitarian Systems (CHHS)
- [Dr. Pinar Keskinocak](#), H. Milton and Carolyn J. Stewart School Chair and Professor, Georgia Tech; Co-founder, Center for Health & Humanitarian Systems (CHHS)
- [Dr. Julie Swann](#), Department Head and the A. Doug Allison Distinguished Professor in the Fitts Department of Industrial and Systems Engineering at NC State; Co-founder, Center for Health & Humanitarian Systems (CHHS)
- [Dr. Dima Nazzal](#), Associate Chair for Academic Administration and Director of Professional Practice and Director of Education and Projects, Center for Health & Humanitarian Systems
- [Dr. Paulo Gonçalves](#), Professor of Management, Università della Svizzera italiana, Founder and Director of the Master in Humanitarian Logistics and Management (MASHLM) and Master in Humanitarian Operations and Supply Chain Management (MASHOM), Università della Svizzera italiana

Please note that all times are in Eastern Time (ET).

HHSCM Program Introduction

Monday 2/16:

10:00 –11:30 am	Canvas platform introduction session
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Monday 3/2:

10:00 –11:30 am	Canvas platform introduction make-up session (recorded)
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Thursday 3/5:

10:00 –12:00 pm	Program introduction and supply chain overview (Keskinocak)
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Friday 3/6:

10:00 – 11:30 am	Excel solver introduction
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Course 1: Responsive Supply Chain Design and Operations

March 9th – 13th

Monday 3/9:

10:00 – 11:30 am	Supply Chain Optimization Overview (Ergun)
11:30 – 11:45 am	Break
11:45 am – 1:15 pm	Distribution & Network Design, Multi Commodity Network Flows, Time Expanded Networks, Bottlenecks (Ergun)
1:15 – 1:30 pm	Q&A / Extra Time

Tuesday 3/10:

10:00 – 11:30 am	Introduction to Forecasting (Swann)
11:30 – 11:45 am	Break
11:45 am – 1:15 pm	Forecasting (Swann)
1:15 – 1:30 pm	Q&A / Extra Time

Wednesday 3/11:

10:00 – 11:00 am	Distribution & Network Design Time Expanded Networks, Bottlenecks (Ergun)
11:00 – 11:15 am	Break
11:15 – 1:15 pm	Managing Uncertainty (Ergun)
1:15 – 1:30 pm	Q&A / Extra Time

Thursday 3/12:

10:00 – 11:30 am	Infectious Disease Modeling to Inform Intervention or Resource Allocation Decisions – Examples from Covid-19 (Swann & Keskinocak)
11:30 – 11:45 am	Break
11:45 am – 1:10 pm	Allocating Scarce Medical Staff to Long-Term Care Facilities in response to COVID-19 Case (Ergun)
1:10 – 1:40 pm	Assessment/Evaluation

Friday 3/13:

10:00 am – 1:00 pm	Optional extra time / Office Hours
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Preparation for Courses 2 & 3

March 16th – 20th

Teams will be assigned by Thursday, 3/20. Please reserve these times to work with the instructors and your team on pre-course assignments and course work. Attendance is required.

Monday 3/16:

10:00 am – 1:00 pm	Course 2 & 3 Preparation
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Tuesday 3/17:

10:00 am – 1:00 pm	Course 2 & 3 Preparation
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Wednesday 3/18:

10:00 am – 1:00 pm	Course 2 & 3 Preparation
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Thursday 3/19:

10:00 am – 1:00 pm	Course 2 & 3 Preparation
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Course 2: Inventory Management and Resource Allocation in Supply Chains March 23th – 27th

Monday 3/23:

10:00 – 11:30 am	Intro to Inventory Management (Nazzal)
11:30 – 11:45 am	Break
11:45 am – 12:45 pm	Single-period inventory decisions under uncertainty (Nazzal)
12:45 – 1:15 pm	Introduction to Economic Order Quantity (EOQ) Models (Nazzal)
1:15 – 1:30 pm	Q&A / Extra Time

Tuesday 3/24:

10:00 – 11:30 am	Introduction to Warehousing: Flow, Space, Time (Guest lecture: TBD)
11:30 – 11:45 am	Break
11:45 am – 2:00 pm	Big Depot/game (Keskinocak)

Wednesday 3/25:

10:00 – 11:00 am	Multi-period inventory decisions under uncertainty (Q, R) (Nazzal)
11:00 – 11:15 am	Break
11:15 am – 12:30 pm	Multi-period inventory decisions under uncertainty (Q, R)
12:30 – 12:45 pm	Break
12:45 – 1:30 pm	Managing Pharmaceutical Supply Chains under Disruption (Ergun)

Thursday 3/26:

10:30 am – 12 :15 pm	Malaria game (Keskinocak)
12:15 – 12:30 pm	Break
12:30 – 1:10 pm	Network Design & Pooling (Nazzal)
1:10 – 1:40 pm	Assessment/Evaluation

Friday 3/27:

10:00 am– 1:00 pm	Optional extra time / Office Hours
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Course 3: Systems Operations and Strategic Interactions in Supply Chains March 30th – April 3rd

Monday 3/30:

10:00 – 11:00 am	Intro to Collaboration & Coordination (Swann)
11:00 – 11:30 am	Intro to Game Theory (Swann)
11:30 – 11:45 am	Break
11:45 am – 12:15 pm	Game Theory (Swann)
12:15 – 1:15 pm	Supply Chain Network Game (Swann)
1:15 – 1:30 pm	Q&A / Extra Time

Tuesday 3/31:

10:00 – 11:30 am	Supply Chain Network Game (Swann)
11:30 – 11:45 am	Break
11:45 am – 1:15 pm	Supply Chain Network Game (Swann)
1:15 – 1:30 pm	Q&A / Extra Time

Wednesday 4/01:

10:00 – 11:00 am	Performance Measurement (Swann)
11:00 – 11:15 am	Break
11:15 am – 1:15 pm	System Dynamics (Guest lecture: TBD)
1:15 – 1:30 pm	Q&A / Extra Time

Thursday 4/02:

10:00 – 12:30 pm	System Dynamics (TBD)
12:30 – 12:45 pm	Break
12:45 – 1:15 pm	Assessment/Evaluation

Friday 4/03:

10:00 am– 1:00 pm	Optional extra time / Office Hours
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