COURSE DESCRIPTION

0501 **Statistics**: Data handling and analysis
0502 **Financials**: Analysis of investments and working capital

Core Courses
0503 (3-0-3) **Operations Research 1**: Deterministic optimization models; linear
Programming, network flows.

0504 (3-0-3) **Operations Research 2**: Probabilistic models; variability; forecasting and
simulation. Wholesale and retail models.

0505 (3-0-3) **Supply Chain Engineering 1**: Production systems, scheduling; warehousing,
including inventory, picking and ordering strategies; distribution.

0506 (3-0-3) **Supply Chain Engineering 2**: Transportation (truckload and less-
thantruckload), courier and packaging systems. Container shipping: port operations,
container management, intermodal shipping. Air cargo. International freight networks and
freight flow patterns.

0507 (3-0-3) **Supply Chain Engineering 3**: Make or buy decisions, pricing and bidding,
wholesale and retail distribution channels; inventory pooling and postponement;
collaboration and sharing, supply chain dynamics and the bullwhip effect. Local supply
chain issues in key regions of the world.

0508 (3-0-3) **Supply Chain Strategy**: Case studies highlighting supply chain successes and
failures.

0510 (3-0-3) **Supply Chain Information Systems**: Planning and execution systems for
inventory management, warehousing, transportation, imports and exports, etc. Service
oriented architecture, cloud computing, systems integration, RFID and other scanning and
monitoring technologies.

0511 (3-0-3) **Seminars**: Company visits and industry speakers.

0512 (6-0-6) **Capstone Project**: Small grups of students focused on specific industry-
sponsored projects, advised by faculty members.

The Capstone Project is undertaken in the summer period and can be completed in Atlanta
or Panama. The students will work in small teams (between 5 or 8 students per team) and
they will be supervised by a member of the faculty. The projects will be selected from
proposals by public and private sponsor companies.