# Barry R. Cobb

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# **EDUCATION**

- **University of Kansas** (Lawrence), Doctor of Philosophy in Business (with an emphasis in Decision Sciences and minors in Econometrics and Financial Engineering), 2005. Dissertation: *Inference and Decision Making in Hybrid Probabilistic Graphical Models*.
- University of Northern Iowa (Cedar Falls), Master of Business Administration, 1995.

Friends University (Wichita, Kansas), Bachelor of Science, 1993.

# ACADEMIC EXPERIENCE

- Virginia Military Institute (Lexington), Department of Economics and Business (AACSB accredited), John W. and Jane M. Roberts Professor in Free Enterprise Business, 2019–present. Teach Operations Management, Data Analytics, and Financial Modeling/Simulation (traditional and writing intensive format)<sup>1</sup>. Professor (tenured), 2012–2014, 2018–2019; Associate Professor (tenured), 2009–2012; Associate Professor (tenure track), 2007–2009; Assistant Professor, 2005–2007.
- Missouri State University (Springfield), College of Business (AACSB accredited), Department of Marketing, Associate Professor (tenure track), June 2016–2018. Teach Operations Management, Supply Chain Management, and Logistics Models. Interim Department Head, Department of Management, 2015–2016; Clinical Assistant Professor, Department of Management, 2014–2015.
- **University of Kansas** (Lawrence), Graduate Research/Teaching Assistant. Independent teaching assignment: Management Science and Operations Management, 2001–2005.
- Johnson County Community College (Overland Park, Kansas), Adjunct Associate Professor. Taught accounting, business, and economics courses, 1998–2005.
- Southwestern Community College (Creston, Iowa), Business and Accounting Instructor. Taught ten business and accounting courses, including Quantitative Methods for Business, Business Statistics, and Total Quality Management, 1995–1997.
- **Southwestern Community College** (Creston, Iowa), Assistant Baseball Coach. Built athletic program with 48 student-athletes from six states by identifying, evaluating and recruiting qualified student-athletes, 1995–1997.
- Buena Vista University (Storm Lake, Iowa), Adjunct Accounting and Marketing Instructor, 1995–1996.
- Cedar Falls Community School District (Cedar Falls, Iowa), Assistant Baseball and Football Coach, 1994–1995.
- **University of Northern Iowa** (Cedar Falls), Department of Athletics, Graduate Assistant. Participated in management of college athletics program, 1993–1995.

<sup>&</sup>lt;sup>1</sup>A complete listing of courses taught at all institutions is included on the last page of this vita.

#### PUBLICATIONS IN PEER REVIEWED JOURNALS

- 1. Cobb, B.R., T. Murray, J.S. Smith. 2022. Adjustable consumption model for retirees to balance spending and risk. *Journal of Economics and Finance* **46**(2) 420–451.
- 2. Cobb, B.R., L. Li. 2021. Forward cycle time distributions for returnable transport items. *Journal of Remanufacturing* **12**(1) 125–151.
- 3. Cobb, B.R. 2021. Statistical process control for the number of defectives with limited memory. *Decision Analysis* **18**(3) 203–217.
- 4. Cobb, B.R., J.S. Smith. 2020. Selecting a Social Security age to balance consumption and risk. *Financial Services Review* **28**(3) 30–50.
- 5. Cobb, B.R., L. Li. 2019. Bayesian network model for quality control with categorical attribute data. *Applied Soft Computing* **84**(1) 1–16.
- 6. Cobb, B.R., L. Li. 2018. Bayesian networks for statistical process control with attribute data. *International Journal of Quality & Reliability Management* **36**(2) 232–256.
- Cobb, B.R., P.P. Shenoy. 2017. Inference in hybrid Bayesian networks with nonlinear deterministic conditionals. *International Journal of Intelligent Systems* 32(12) 1217–1246.
- 8. Cobb, B.R. 2017. Optimization models for the continuous review inventory system. *International Journal* of Operations Research & Information Systems **8**(1) 1–21.
- 9. Cobb, B.R. 2016. Lead time uncertainty and supply chain coordination in lost sales inventory models. *International Journal of Inventory Research* **3**(1) 5–30.
- 10. Cobb, B.R. 2016. Estimating cycle time and return rate distributions for returnable transport items. *International Journal of Production Research* **54**(14) 4356–4367.
- 11. Cobb, B.R. 2016. Inventory control for returnable transport items in a closed-loop supply chain. *Transportation Research Part E: Logistics and Transportation Review* **86** 53–68.
- Cobb, B.R., A.W. Johnson, R. Rumí, A. Salmerón. 2015. Accurate lead time demand modeling and optimal inventory policies in continuous review systems. *International Journal of Production Economics* 163 124–136.
- 13. Cobb, B.R., T. Sen. 2014. Finding mixed strategy Nash equilibria with decision trees. *International Review of Economics Education* **15** 43–50.
- Cobb, B.R., A.W. Johnson. 2014. A note on supply chain coordination with joint determination of order quantity and reorder point using a credit option. *European Journal of Operational Research* 233(3) 790–794.
- 15. Cobb, B.R., R. Rumí, A. Salmerón. 2013. Inventory management with log-normal demand per unit time. *Computers & Operations Research* **40**(7) 1842–1851.
- 16. Cobb, B.R. 2013. Spreadsheet modeling of (Q, R) inventory policies. *Decision Sciences Journal of Innovative Education* **11**(2) 175–184.
- 17. Cobb, B.R., A. Basuchoudhary, G.N. Hartman. 2013. Mixed strategy Nash equilibria in signaling games. *Theoretical Economics Letters* **3**(1) 52–64.

- 18. Cobb, B.R. 2013. Mixture distributions for modelling demand during lead time. *Journal of the Operational Research Society* **64**(2) 217–228.
- 19. Cobb, B.R. 2011. Graphical models for economic profit maximization. *INFORMS Transactions on Education* **11**(2) 43–56.
- 20. Cobb, B.R., J.M. Charnes. 2010. A graphical method for valuing switching options. *Journal of the Operational Research Society* **61**(11) 1596–1606.
- 21. Cobb, B.R., A.J. Menas. 2009. Performance of TIAA-CREF's recommended portfolios. *Journal of Personal Finance* **8** 23–48.
- 22. Cobb, B.R., A. Basuchoudhary. 2009. A decision analysis approach to solving the signaling game. *Decision Analysis* **6**(4) 239–255.
- 23. Cobb, B.R. 2009. Influence diagrams for capacity planning and pricing under uncertainty. *Journal of Management Accounting Research* **21** 75–97.
- 24. Cobb, B.R. 2009. Efficiency of influence diagram models with continuous decision variables. *Decision Support Systems* **48**(1) 257–266.
- 25. Cobb, B.R., P.P. Shenoy. 2008. Decision making with hybrid influence diagrams using mixtures of truncated exponentials. *European Journal of Operational Research* **186**(1) 261–275.
- Cobb, B.R. 2007. Influence diagrams with continuous decision variables and non-Gaussian uncertainties. *Decision Analysis* 4(3) 136–155.
- 27. Cobb, B.R., P.P. Shenoy, R. Rumí. 2006. Approximating probability density functions in hybrid Bayesian networks with mixtures of truncated exponentials. *Statistics & Computing* **16**(3) 293–308.
- 28. Cobb, B.R., P.P. Shenoy. 2006. Operations for inference in continuous Bayesian networks with linear deterministic variables. *International Journal of Approximate Reasoning* **42**(1–2) 21–36.
- 29. Cobb, B.R., P.P. Shenoy. 2006. On the plausibility transformation method for translating belief function models to probability models. *International Journal of Approximate Reasoning* **41**(3) 314–330.
- 30. Cobb, B.R., P.P. Shenoy. 2006. Inference in hybrid Bayesian networks with mixtures of truncated exponentials. *International Journal of Approximate Reasoning* **41**(3) 257–286.
- 31. Cobb, B.R., J.M. Charnes. 2004. Real options volatility estimation with correlated inputs. *The Engineering Economist* **49**(2) 119–137.
- Hague, D., M. Krieger, M. Bugenhagen, J.M. Charnes, B.R. Cobb, B. Wallace, C. Kersch, J. Shubin. 2004. Telecommunications network evolution decisions: The Sprint/Nortel Networks real option valuation tool (practice abstract). *Interfaces* 34(6) 438–440.
- Cobb, B.R., P.P. Shenoy. 2003. A comparison of Bayesian and belief function reasoning. *Information Systems Frontiers* 5(4) 345–358.

#### PUBLICATIONS IN EDITED BOOKS AND REFEREED PROCEEDINGS

1. Cobb, B.R. 2022. Limited Memory Influence Diagrams for attribute statistical process control with variable sample sizes. A. Salmerón, R. Rumí, eds. *Proceedings of the Eleventh European Workshop on Probabilistic Graphical Models*, in press.

- Cobb, B.R. 2014. Mixture of polynomials probability distributions for grouped sample data. L. van der Gaag, A. Feelders, eds. *Proceedings of the Seventh European Workshop on Probabilistic Graphical Models, Lecture Notes in Artificial Intelligence*, Vol. 8754, Springer, Cham, Switzerland, 129-144.
- Cobb, B.R., A.W. Johnson. 2014. Mixture distributions for modeling lead time demand in coordinated supply chains. J.B. Greene and K.F. Snider, eds. *Proceedings of the Eleventh Annual Acquisition Symposium Volume II*, Dudley Knox Library, Naval Postgraduate School, Monterey, CA, 236–246.
- Cobb, B.R., A.W. Johnson. 2013. Lead time demand modeling in continuous review supply chain models. J.B. Greene and K.F. Snider, eds. *Proceedings of the Tenth Annual Acquisition Symposium Logistics Management*, Dudley Knox Library, Naval Postgraduate School, Monterey, CA, 538–549.
- Cobb, B.R., P.P. Shenoy. 2012. Piecewise linear approximations of nonlinear deterministic conditionals in continuous Bayesian networks. A. Cano, M. Gómez-Olmedo and T.D. Nielsen, eds. *Proceedings of the Sixth European Workshop on Probabilistic Graphical Models*, 59–66.
- Cobb, B.R., A. Salmerón, R. Rumí. 2012. Approximating the distribution of a sum of log-normal random variables. A. Cano, M. Gómez-Olmedo and T.D. Nielsen, eds. *Proceedings of the Sixth European Workshop on Probabilistic Graphical Models*, 67–74.
- Cobb, B.R. 2010. An influence diagram model for detecting credit card fraud. P. Myllymäki, T. Roos and T. Jaakkola, eds. *Proceedings of the Fifth European Workshop on Probabilistic Graphical Models*. Helsinki Institute for Information Technology Publications, Helsinki, Finland, 89–96.
- Cobb, B.R. 2010. Continuous decision variables with multiple continuous parents. P. Myllymäki, T. Roos and T. Jaakkola, eds. *Proceedings of the Fifth European Workshop on Probabilistic Graphical Models*. Helsinki Institute for Information Technology Publications, Helsinki, Finland, 97–104.
- Salmerón, A., R. Rumí, B.R. Cobb. 2009. Predicting stock and portfolio returns using mixtures of truncated exponentials. C. Sossai, ed. *Symbolic and Quantitative Approaches to Reasoning under Uncertainty, Lecture Notes in Computer Science*, Vol. 5590. Springer-Verlag, Heidelberg, Germany, 781–792.
- 10. Cobb, B.R. 2008. Hybrid influence diagrams for threat identification. B.A. Bodt, R.X. Sturdivant, eds. *Proceedings of the 14th Army Conference on Applied Statistics*. Lexington, VA.
- Cobb, B.R. 2008. Measuring efficiency in influence diagram models. M. Jaeger, T.D. Nielsen, eds. *Proceedings of the Fourth European Workshop on Probabilistic Graphical Models*. Aalborg University, Aalborg, Denmark, 65–72.
- 12. Cobb, B.R., J.M. Charnes. 2007. Real options valuation. S.G. Henderson et al., eds. *Proceedings of the 2007 Winter Simulation Conference*. IEEE, Piscataway, NJ, 173–182.
- Cobb, B.R., R. Rumí, A. Salmerón. 2007. Bayesian network models with discrete and continuous variables. P. Lucas, J.A. Gámez, A. Salmerón, eds. *Advances in Probabilistic Graphical Models, Studies in Fuzziness and Soft Computing*, Vol. 213. Springer–Verlag, Heidelberg, Germany, 81–102.
- Cobb, B.R. 2006. Continuous decision MTE influence diagrams. M. Studený, J. Vomlel, eds. *Proceedings of the Third European Workshop on Probabilistic Graphical Models*. Action M Agency, Prague, Czech Republic, 67–74.
- Cobb, B.R., R. Rumí, A. Salmerón. 2005. Modeling conditional distributions of continuous variables in Bayesian networks. A.F. Famili, A. Siebes, eds. *Intelligent Data Analysis, Lecture Notes in Computer Science*, Vol. 3646. Springer-Verlag, Heidelberg, Germany, 36–45.

- 16. Cobb, B.R., P.P. Shenoy. 2005. Hybrid Bayesian networks with linear deterministic variables. F. Bacchus, T. Jaakkola, eds. *Uncertainty in Artificial Intelligence*, Vol. 21. AUAI Press, Corvallis, OR, 136–144.
- Cobb, B.R., P.P. Shenoy. 2005. Nonlinear deterministic relationships in Bayesian networks. L. Godo, ed. Symbolic and Quantitative Approaches to Reasoning under Uncertainty, Lecture Notes in Artificial Intelligence, Vol. 3571. Springer–Verlag, Berlin, Germany, 27–38.
- Cobb, B.R., P.P. Shenoy. 2004. Hybrid influence diagrams using mixtures of truncated exponentials. M. Chickering, J. Halpern, eds. *Uncertainty in Artificial Intelligence*, Vol. 20. AUAI Press, Arlington, VA, 85–93.
- Cobb, B.R., P.P. Shenoy. 2004. Inference in hybrid Bayesian networks with deterministic variables.
  P. Lucas, ed. *Proceedings of the Second European Workshop on Probabilistic Graphical Models*. Leiden University, Leiden, Netherlands, 57–64.
- Cobb, B.R., J.M. Charnes. 2004. Approximating free exercise boundaries for American-style options using simulation and optimization. R.G. Ingalls et al., eds. *Proceedings of the 2004 Winter Simulation Conference*. IEEE, Piscataway, NJ, 1637–1644.
- Cobb, B.R., P.P. Shenoy, R. Rumí. 2004. Approximating probability density functions with mixtures of truncated exponentials. G. Coletti et al., eds. *Proceedings of the Tenth Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems*. Universitá degli Studi de Perugia, Perugia, Italy, 429–436.
- Cobb, B.R., P.P. Shenoy. 2003. A comparison of methods for transforming belief function models to probability models. T.D. Nielsen and N.L. Zhang, eds. *Symbolic and Quantitative Approaches to Reasoning under Uncertainty, Lecture Notes in Artificial Intelligence*, Vol. 2711. Springer–Verlag, Berlin, Germany, 255–266.
- 23. Cobb, B.R., J.M. Charnes. 2003. Simulation and optimization for real options valuation. S. Chick et al. (eds.), *Proceedings of the 2003 Winter Simulation Conference*, 2003, 343–350, IEEE, Piscataway, N.J., with J.M. Charnes.
- Cobb, B.R., P.P. Shenoy. 2003. Inference in hybrid Bayesian networks with mixtures of truncated exponentials. J. Vejnarová, ed. *Proceedings of the Sixth Workshop on Uncertainty Processing in Expert Systems*. VSE-Oeconomica Publishers, Hejnice, Czech Republic, 47–63.

#### WORK IN PROGRESS

#### "Intermittent Sampling for Statistical Process Control with the Number of Defectives."

**Abstract:** A limited memory influence diagram model is implemented for statistical process control to determine the time periods in which to collect samples and the decision strategy to minimize total costs of quality control when data on the number of defectives in a sample is available.

# "On the Equity-Efficiency Trade-off in Food-Bank Network Operations," with M. Firouz, L. Li and F. Shao

**Abstract:** A novel modeling perspective to the food-bank donation allocation problem under equity and efficiency performance measures is presented. Using a penalty factor in the objective function, our model explicitly accounts simultaneously for both efficiency and equity.

# **UNPUBLISHED WORKING PAPERS**

- "An efficient technique for solving the two-type signaling game," Working Paper, Virginia Military Institute, with A. Basuchoudhary and G.N. Hartman.
- "Propagation in hybrid Bayesian networks with linear deterministic variables," Working Paper No. 314, School of Business, University of Kansas, with P.P. Shenoy.
- "On transforming of belief function models to probability models," Working Paper No. 293, School of Business, University of Kansas, with P.P. Shenoy.

#### **INDUSTRY EXPERIENCE**

- **Independent Consulting** for telecommunications, supply chain management, and non-profit organizations in Kansas, Virginia, Canada, and the United Kingdom.
- **Sprint Corp.** (Overland Park, Kansas), National Consumer Organization, Senior Financial Analyst. Partnered with finance, marketing and operations managers to develop sales forecasts, create and maintain operating expense models, and plan staffing levels, 2000–2001.
- **Sprint Corp.** (Overland Park, Kansas), Capital Asset Accounting, Financial Analyst. Created organization-wide monthly capital investment reports, developed systematic financial reports, and produced standard and ad-hoc management reports to facilitate decision making and financial reporting processes, 1997–2000.

#### GRANTS

Virginia Military Institute, Research and Teaching Grants-in-Aid, 2022, 2012, 2011, 2009, 2008, 2007, 2006.

- Missouri State University, Summer Research Grants, 2017, 2016.
- United States Department of Defense through the Naval Postgraduate School, Acquisition Research Program, "Modeling uncertainty in military supply chain management decisions," September 2012–May 2014.
- Virginia Military Institute, Faculty Development Leave, "Decision analysis and game theory: Hybrid modeling approaches," August 2011–December 2011.
- University of Kansas, School of Business, Dissertation Fellowship, "Inference and decision making in hybrid probabilistic graphical models," August 2004–May 2005.
- Sprint Corporation and Nortel Networks, "Real options in network evolution economics," with J.M. Charnes, September 2002–September 2003.

#### PRESENTATIONS AT PROFESSIONAL MEETINGS

INFORMS Advances in Decision Analysis Conference (Arlington, Virginia), 2022.

Production and Operations Management Society (POMS) Annual Conference, 2019, 2017.

INFORMS National Meeting, 2019, 2017, 2015, 2013, 2011, 2010, 2009, 2008, 2007, 2006, 2004, 2003.

Center for Business Analytics Research Seminar, University of Kansas (Lawrence), 2016 (invited).

Acquisition Research Symposium, Naval Postgraduate School (Monterey, California), May 2014.

- Department of Operational Sciences, Air Force Institute of Technology (Dayton, Ohio), February 2013 (invited).
- European Workshop on Probabilistic Graphical Models, 2014, 2012, 2010, 2008, 2006, 2004.
- Management Science and Technology Seminar, University of Kansas (Lawrence), 2012, 2009, 2007 (invited).
- Department of Statistical Sciences and Operations Research, Virginia Commonwealth University (Richmond), October 2010 (invited).
- Department of Mathematics and Computer Science, University of Richmond (Richmond, Virginia), March 2010 (invited).
- Army Conference on Applied Statistics (Lexington, Virginia), October 2008.
- Conference on Uncertainty in Artificial Intelligence, 2005, 2004.
- European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty, 2005, 2003.
- Departamento de Estadística Y Matemática Aplicada, Universidad de Almería (Almería, Spain), February 2005 (invited).
- Winter Simulation Conference, 2004, 2003.
- Decision Sciences Institute Annual Meeting (Boston, Massachusetts), November 2004.
- Tenth Conference on Information Processing and Management of Uncertainty in Expert Systems (Perugia, Italy), July 2004.

Sixth Workshop on Uncertainty Processing in Expert Systems (Hejnice, Czech Republic), September 2003.

#### HONORS

Virginia Military Institute, Hinman Research Award, 2022, 2020.

Missouri State University, College of Business, Daisy Porter Loucks Research Professorship, 2017–2018.

- International Journal of Inventory Research, Best Technical Paper Award, 2017.
- Missouri State University, College of Business, Outstanding Scholarly Activity Award for Best Research Paper, 2017.
- Nominated by Virginia Military Institute for Virginia Outstanding Faculty Member Award, 2013, 2012.
- Virginia Military Institute, Maury Research Award, 2012; Distinguished Teaching Award, 2012.

Decision Sciences Journal of Innovative Education, Best Reviewer Award, 2011.

Friends University, Athletics Hall of Fame, inducted: 2011 (Baseball Student-Athlete: 1989–1993).

- University of Kansas, School of Business, Max E. Fessler Dissertation Award, 2005; John O. Tollefson Best Paper Award, 2005, 2004.
- INFORMS Decision Analysis Society, Student Paper Competition, Finalist, 2004.

Sprint Values Excellence Annual Distinguished Contribution Award, 2000, 1999.

# **PROFESSIONAL SERVICE**

- Ad-hoc referee for numerous journals, including: Annals of Operations Research; Artificial Intelligence; Artificial Intelligence in Medicine; Computers & Operations Research; Decision Analysis; Decision Sciences Journal of Innovative Education; Decision Support Systems; The Engineering Economist; European Journal of Operational Research; Expert Systems with Applications; Flexible Services and Manufacturing; INFORMS Transactions on Education; International Journal of Approximate Reasoning; International Journal of Production Economics; International Review of Economics Education; Journal of the American Statistical Association; Journal of Artificial Intelligence Research; Journal of Defense Modeling and Simulation; Journal of Industrial and Management Optimization; Journal of the Operational Research Society; Journal of Personal Finance; Omega; Risk Analysis; Operations Management Review; Simulation Modelling Practice and Theory; Transportation Research, Part E.
- Virginia Military Institute, Tenure and Promotion Committee (elected), 2011–2014, (appointed), 2022–present; Faculty Compensation Committee, 2019–present; Faculty Development Committee, 2019–2021; Chairs and Professorships Committee, 2021–2022; Technology, Teaching, and Learning Committee, 2005–2010; Graduate Programs Relationships Committee, 2009–2014 (Chair: 2013–2014); Academic Technologies Committee, 2010–2011.
- Missouri State University, Departmental Curriculum Committee, 2014–2018; Academic Affairs and College of Business Executive Budget Committees, 2016–2018; College of Business Strategic Planning Committee, 2015–2016.
- Beta Gamma Sigma Business Honor Society, Virginia Military Institute chapter, President, 2010-2014.
- Program Committee, European Workshop on Probabilistic Graphical Models (PGM), 2014, 2016, 2018, 2020, 2022; Conference on Uncertainty in Artificial Intelligence (UAI), 2010–2013; International Joint Conferences on Artificial Intelligence (IJCAI), 2011.
- Editorial Board, Decision Analysis, 2012–present, International Journal of Operations Research and Information Systems, 2009–2014.
- INFORMS National Meeting, Session Chair, 2019, 2015, 2013, 2008, 2007, 2004.

### **COMMUNITY SERVICE**

Contributor to Bears Business Briefs series in Springfield News Leader, five articles in 2016.

- Volunteer for Watch Dog Dad program, Springfield Public Schools, 2014–2016.
- Organized and operated Castle Rock Community Group, Inc., a non-profit organization created to operate a neighborhood swimming pool in Roanoke, Virginia, 2013.
- Leukemia and Lymphoma Society, Team in Training participant completed three marathons along with seven family members and raised over \$50,000 for cancer research, 2013, 2008, 2006.

Westridge Middle School (Overland Park, Kansas), Junior Achievement Classroom Consultant, 1997–2001.

#### MEMBERSHIPS

Beta Gamma Sigma

Institute for Operations Research and the Management Sciences (INFORMS)

Production and Operations Management Society (POMS)

# LIST OF COURSES TAUGHT

Course Title	Semesters Taught	Institution
Accounting Principles I	1	JCCC
Accounting Principles II	2	JCCC, SWCC
Business Statistics	1	SWCC
Computer Accounting	1	SWCC
Econometrics	5	VMI
Economic Principles I	1	JCCC
Economics and Business Analytics	4	VMI
* Financial Modeling	2	VMI
* Financial Modeling (Writing Intensive)	4	VMI
Intermediate Accounting	2	SWCC, BVU
Introduction to Accounting	1	SWCC
Introduction to Business	1	JCCC
Logistics Models	2	MSU
Management Science and Operations Management	1	KU
Managerial Economics	3	VMI
* Managerial Economics (Writing Intensive)	3	VMI
Marketing Principles	1	BVU
Managerial Accounting	18	JCCC
* Operations Management <sup>+</sup>	28	VMI, MSU
Payroll Accounting	1	SWCC
Quantitative Methods in Business	1	SWCC
* Quantitative Methods for Economics and Business	4	VMI
* Quantitative Methods for Economics and Business (Writing Intensive)	1	VMI
Statistics	3	VMI
* Supply Chain and Operations Modeling	2	MSU
Supply Chain Management	2	MSU
** Supply Chain Management Seminar	4	MSU
Tax Accounting	2	SWCC
Technical Math	2	SWCC
Total Quality Management	2	SWCC

KEY: MSU = Missouri State University; VMI = Virginia Military Institute; KU = University of Kansas; JCCC = Johnson County Community College; SWCC = Southwestern Community College; BVU = Buena Vista University.

\* Denotes courses designed.

\*\* Denotes graduate course.

+ Taught course for two semesters at the MSU extension campus in Dalian, China (two weeks in residence and the remainder of the semester as a blended-format online course).