Master of Science (MSc) Supply Chain Management



"Supply chains are becoming increasingly important, even at the board level, and are now recognized as an important part of every business. Companies understand that they can achieve a true competitive advantage by optimizing supply chains. This program will enhance the students' expertise and supply chain-related knowledge to levels where they can effectively design and manage future supply chains in a competitive environment. The combination of theory, a solid foundation in supply chain principles, and applied skills offers the students a great and challenging program."

(Oliver Hilpold, Head of Supply Chain Management, Mondi E&I)



Master of Science in Supply Chain Management

"Coming together is a beginning; keeping together is progress; working together is success." (Henry Ford)

DEAR PROSPECTIVE STUDENTS,

Supply chains are the basic foundations of the business world. They are global in nature: products consist of parts manufactured in different regions of the world, are assembled in yet other locations and then shipped across the globe to retailers and consumers. These complex networks include manufacturers and suppliers, their shippers and carriers with various modes of transportation, distribution or storage centers and eventually retailers, which ultimately supply the customers.

Our program is unique in Europe, because in addition to a thorough education in relevant theories, it offers state-of-the-art methods and techniques and a trans-disciplinary, integrated view of supply chain-related issues. Since every business is involved in one or more supply chains, employment opportunities in this field are numerous and promising, with demand exceeding the current

supply of graduates. Our graduates are well prepared to design and manage the future's most effective supply chains. They are also well equipped to start a research career in supply chain management.

Besides motivation and aptitude for the program, you should have a background in business/economics, industrial engineering, informatics and/or geography, and be interested in operations, transportation and logistics, business information systems, geo-informatics, and operations research.

If the program matches your interests, we're looking forward to welcoming you!

Werner Jammernegg and Tina WakolbingerProgram Directors MSc SCM





Basic Information

"Uncertainty is my business."
(Program slogan chosen by our SCM students)

AT A GLANCE	
Duration	Four semesters, full-time degree program
Credits	120 ECTS credits (incl. 30 ECTS credits for the Master's thesis)
Degree awarded to graduates	Master of Science (WU), abbreviated as MSc (WU)
Start	Only in winter semester
Capacity	Up to 55 students per academic year
Application	Rolling admissions start in September 2014
Exchange semester	Possible in second year
Contact	wu.ac.at/master/scm facebook.com/MScSCM

"I like that the MSc SCM is internationally oriented and that the classes are relatively small, because one can participate more in courses and the interaction between professors and students is better. It also encourages working in small teams, which will be useful in my future job."

(Daniela Durisova, SCM student)



Contents and Structure

Our master program offers a profound education in Supply Chain Management. Our full-time degree program combines the areas operations, transportation and logistics, business information systems and geo-informatics, and operations research.

The program focuses on the analysis, design, management, and operation of supply chains in manufacturing and professional service industries, in profit as well as nonprofit environments.

Students are presented with a mix of theoretical, methodological and empirical research for a basic understanding of the fundamental questions and problems in the field, both from a trans-disciplinary perspective as well as from the view of different types of focal companies (manufacturers and suppliers, shippers and carriers, retailers).

Advanced information systems are crucial for state-ofthe-art supply chain management. Therefore, supply chain information and planning systems (e.g. production planning and control systems, warehouse, transportation management, etc.) are an important part of the curriculum, as are relevant geographic information system tools. The appropriate methods and tools for the analysis and design of supply chain models and understanding complex decision-making processes in SCM are discussed in detail. The program takes both a micro-level and a meso-level approach to supply chains.

VISITING PROFESSORS & CORPORATE PARTNERS

Students will have plenty of opportunities to be in touch with visiting professors and experts from industry to discuss recent issues in SCM, such as supply chain finance, outsourcing/off- shoring, supply chain risks, sustainable supply chains, or disaster relief logistics. In addition, our corporate partners also provide current thesis topics.

"The SCM program provided me with detailed knowledge about supply chain processes and prepared me for my current position with extended courses in supply logistics and SAP."

(Patrick Jörg, SCM graduate 2013, Mondelez Int.)





"Don't Tweak Your Supply Chain - Rethink It End to End."
(Hau L. Lee, Harvard Business Review, October 2010)

PROGRAM STRUCTURE*					
1 st semester					
Logistics Management	Operations Management	Supply Chain Operations	Operations Research	Advanced Operations Research	Geographic Information Systems for Transport and Logistics
5 ECTS each					

2 nd semester					
Supply Chain Planning	Supply Chain Controlling	Global Supply Chain Design	Supply Management	Enterprise Resource Planning Systems	Advanced Geographic Information Systems for Transport and Logistics

3rd samester

Seminar Course on Special Issues in Supply Chain Management (select one):

- ECR & Transport
- > IT
- Sustainability

Electives (choice of two):

- Decision Support Systems
- → Integrated Information Systems
- > Retail and Marketing
- > Transportation Geography and Modeling
- > Transport and Logistics

10 ECTS each

4 th semester	
Research Seminar in Supply Chain Management	Master Thesis
10 ECTS	20 ECTS

^{*} For details see: wu.ac.at/master/scm/structure



"Attract scarce talent. Managing today's levels of complexity often requires companies to attract new kinds of supply chain talent, which is usually in short supply. (...) The problem: demand for specific supply chain expertise is growing faster than talent development." (McKinsey&Company, Operations Extranet, March 2014)

The curriculum – grounded in proven theory and methodology, best practices and emerging innovative techniques – enables students to chart the supply chain processes all the way from managing information technology to enabling logistics and designing supply chain strategies. The fine-tuned course and semester structure enables motivated, dedicated students to complete their studies in two years with a balanced workload.

In the Seminar Course and the Research Seminar, participants learn to apply the concepts and methods learned to real world environments.

Further details and course descriptions can be found on our website:

wu.ac.at/master/scm/structure



FIRST YEAR

The first year introduces students to the basics of operations, transport, and logistics, and focuses on the relevant concepts of business information systems and geo-informatics as well as mathematics and statistics. Fundamental principles, methods, techniques and information tools – necessary for the analysis, management and operation of supply chains – are presented.

SECOND YEAR

In the second year, students select two in-depth electives from a choice of five subjects, according to their individual interests. In one group of electives, students learn to design, plan, and control a supply chain from the perspectives of a manufacturer/ supplier, a logistics service provider, and a retailer as a focal company. The remaining electives deal with integrated information systems, advanced planning systems, and transportation geography and modeling.

STUDENT EXCHANGE

Students also have the opportunity to spend a semester abroad at one of the program's renowned partner universities without extending the duration of their studies. For more information on the program's international and intercultural aspects, turn to page 8.

JOB OPPORTUNITIES WITHIN THE PROGRAM

For encompassing support in the elementary subjects, selected senior year students are involved in the teaching and the development of supporting materials as tutors. These positions also help students gain deeper insight into working in an academic setting and into the institutes, research areas.

Program Faculty

Three different WU departments cooperate in this trans-disciplinary program, contributing to its leading position with their highly qualified researchers and lecturers. The distinguished SCM faculty covers a wide variety of teaching and research areas. They also work together with WU's Research Institute for Supply Chain Management.

DEPARTMENT OF INFORMATION SYSTEMS & OPERATIONS		
Emel Arikan	Supply Chain Risk Management	
Johannes Fichtinger	Supply Chain Planning	
Werner Jammernegg	Inventory Management, Sustainable Operations	
Nils Löhndorf	Computational Stochastic Optimization	
Andreas Mild	Retail & Marketing	
Alexander Prosser	Business Intelligence and Data Mining, Analytical Information Systems	
Lena Silbermayr	Risk Management and Supply Chain Management	
Alfred Taudes	Operations Strategy, Knowledge Management	

DEPARTMENT OF GLOBAL BUSINESS & TRADE		
Sustainable Transport & Logistics		
Sustainability in Transport, Logistics and SCM		
Operations Research		
Transport, Logistics and Supply Chain Management		
Global Supply Chain Management and Controlling		
Quantitative Models for Supply Chain Management		

DEPARTMENT OF SOCIOECONOMICS		
Manfred M. Fischer	Spatial Economics and Analysis, Spatial Econometrics, GIScience	
Petra Staufer-Steinnocher	Spatial Business Intelligence and Location Analytics, GISystems and GIScience	
Tamas Krisztin	Spatial Economics, Transportation Research, Spatial Econometrics	

PROGRAM MANAGEMENT: Julia Landgraf, Program Manager

International Orientation

Supply chains are global in nature and, thus are permanently crossing borders. In this spirit we encourage international mobility. Students may choose one of our strategic partner programs or one of WU's 100 well-known partner universities. Further, we regularly invite and integrate renowned visiting professors, who come to WU to present their current research in supply chain-related areas.

MULTICULTURAL MIX

Our student body is made up of a broad variety of nationalities. The students who enrolled in the fall of 2013 come from 20 different countries on four continents (see chart p. 10). Integration in and outside the class room is encouraged and supported by a mentoring tutor, a senior year volunteer.

VISITING PROFESSORS

Internationally esteemed visiting professors are involved in teaching the Research Seminar and other courses, and present current research topics related to supply chain management. For detailed information on our guest professors, their home universities, and their research areas for the upcoming year, please visit our website wu.ac.at/master/scm/faculty

EXCHANGE SEMESTER

The chart below gives an overview of our selected partner universities in Europe and overseas, each offering a suitable program in supply chain management. All partner programs enable committed students to spend time abroad without extending their study duration. Usually, students go abroad during the third semester, choosing electives offered at the partner university. Those who choose to go on exchange in the fourth semester can write their master thesis abroad.

RENOWNED PARTNER UNIVERSITIES – ALL OVER THE WORLD			
USA	Europe	Asia	
University of Texas at Dallas -	Aarhus University (DK)	City University of Hong Kong (CHN)	
Naveen Jindal School of Managemen	Cranfield University (UK)	Kobe University (JPN)	
	TU Eindhoven (NL)		

"After having spent an extremely interesting and challenging exchange semester in Japan I can say that students from our master program can more than keep up with the latest supply chain trends. The solid background gained at WU in the fields of operations, logistics, statistics, and informatics is a valuable asset for your future career in both practice and academia."

(Lukas Gisch, SCM student)

Qualification Profile and Career Prospects

"With the Master's program in SCM, students are offered a comprehensive and competitive program which enables them to effectively compete in their future business careers."

(Johannes Rechnitzer, SAP Austria)

After completion of the MSc program, graduates will be thoroughly familiar with the design and analysis of logistics processes, the related information and financial flows in supply chains and transportation networks in general, the design of supply chain strategies, as well as the management and optimization of global supply chains and their coordination.

This will include the necessary skills to

- Solve complex supply chain-related problems in a globalized world by applying appropriate methods, techniques and software tools
- Measure, evaluate and control the quality of supply chain processes with suitable performance management systems
- Analyze and manage supply chains for different types of focal companies

Graduates of the program have gained not only immediate practical qualifications but also methodological and academic skills, qualifying them for specialist and management positions with strategic responsibilities in the fields of supply chain management, transport, production and logistics systems in industrial, retail, and service companies.

The program's graduates are qualified to be tomorrow's experts in the increasingly complex world of supply chains, in areas such as:

- > Supply chain strategy/controlling/ planning
- Business process excellence
- > Inventory management
- > Lean/green supply chain management
- Manufacturing and logistics
- > Sourcing and purchasing
- Sales and after-sales services
- > Advanced planning systems (e.g. ERP)



Admissions Criteria

Coordinating supply chains efficiently and successfully demands a broad variety of skills. For this reason, our program is aimed not only atbusiness administration and economics students, but also at students from a wider range of SCM-relevant study fields. A team of experts, consisting of at least three faculty members thoroughly reviews all submitted applications inviting only the best students to enroll in the program, ensuring the program's high quality standards.

Only complete applications submitted on or before the application deadline can be considered. Candidates must meet the following minimum requirements:

- > Completion of/enrollment in a relevant bachelor program or other equivalent degree program (worth at least 180 ECTS credits) which fulfills at least one of the following requirements:
 - Business administration and/or economics (min. 60 ECTS credits)
 - Production systems and/or logistics systems and/or ICT (min. 40 ECTS credits)
 - > Information systems (min. 40 ECTS credits)
 - > Mathematics and/or statistics (min. 40 ECTS credits)
 - › Geography (min. 40 ECTS credits)
- > Sufficient proficiency in English
- Skills and knowledge in
 (a) Production and/or transport and/or logistics

- (b) Management information systems and/or geo-informatics
- (c) Mathematics and/or statistics
- > Achievement potential

For further details on application proceedings (minimum requirements, admission policies, etc.), please visit our website: wu.ac.at/master/scm/admission



SCM STUDENTS (FALL 2013)

60%/40% male/female

31% Austrians/ 41% FLI (excl. ALIT)/ 28% non-FL



Application and Admissions at WU

Selection procedures apply for all English-taught MSc programs. WU employs a rolling admissions policy with three priority deadlines.

APPLICATION

The rolling admissions policy allows students to apply from the beginning of September until spring. Submitted applications are batched and processed according to so-called priority deadlines. This means that the processing of applications submitted after a particular priority deadline will be delayed until after the next deadline. The first step in the application process is an online application. To keep quality standards high, all of WU's English-taught MSc programs are open to only a limited number of students. For this reason, all applicants are subject to a comprehensive selection process.

PROFICIENCY IN ENGLISH

Applicants must provide proof that they have a sufficient command of the English lanuage (e.g. TOEFL 600/250/100, IELTS 7.0, CAE Certificate in Advanced English, English as a mother tongue, or a bachelor degree with English as language of instruction).

ADMISSIONS

Students selected for admission must come to WU's Admissions Office in person to enroll. Detailed information on the documents required are available online: wu.ac.at/prospective/en/admission/international







ACADEMIC CALENDAR

At WU, the academic year is divided into two semesters. The winter semester starts in October and ends in February. It is followed by the summer semester, which runs until the end of June. Summer vacation is in July, August, and September. All English-taught master programs start in the winter semester. Detailed information on enrollment deadlines and WU's academic calendar can be found on the WU website under wu.ac.at/students/en/org/calendar

TUITION FEES

No tuition fees apply for EU citizens during the standard duration of their program (plus two extra semesters). All those exceeding the standard duration, however, are required to pay a tuition fee of approximately \leqslant 360 per semester. Non-EU students are required to pay \leqslant 726.72. Under certain circumstances, the same regulations that apply to EU citizens can apply to non-EU students as well.

To find out more, please visit wu.ac.at/students/en/org/tuition

SCHOLARSHIPS

WU does not offer any traditional scholarships. However, if certain conditions apply, WU does have two financial aid programs that provide need-based and merit-based scholarship grants. For further information, please contact WU's Study Regulations Office (wu.ac.at/structure/en/servicecenters/regulations) or visit the Austrian Database for Scholarships and Research Grants (OeAD) website at grants.at

ORGANIZING YOUR STUDIES AT WU

> Getting started

WU offers comprehensive information for international students on its website.

> Housing

A cooperation with the OeAD Housing Office guarantees WU a certain quota of student residences each year.

> Bridging courses

Students who want to refresh their skills before courses start are welcome to attend bridging courses.

> Online services

A wide selection of online services is available to students on WU's website **wu.ac.at** and WU's eLearning platform **Learn@WU**

> The Austrian Students' Union at WU

The Austrian Students' Union (ÖH) represents the interests of all WU students and offers them a wide spectrum of services.

> Student jobs at WU

WU students have many opportunities to actively participate in student and campus life.

They may, for instance, choose to become course tutors, join one of our academic units as student staff members, or get involved with the Students' Union.

> Centrally located

WU is easily accessible by public transport, and only a few minutes away from the city center.

WU Key Data

2013/14	
Students	
Total students (fall 2013) International students (fall 2013) Incoming exchange students Outgoing exchange students	22,776 (47% women) 6,241 (27% of total) ~1,000 per year ~1,000 per year
Faculty and Staff ¹	
Total faculty ² Administrative staff Total	570 (43% women) 473 (67% women) 1,043 (54% women)
Campus Resources	
Premises Campus WU Premises Library Total floor space Volumes	100,000 m² 7,200 m² ~ 812,000
International	
Partner universities Courses in English	~ 230 ~ 140/semester
Graduate Programs	
German-taught MSc programs > Business Education > Business Law (LL.M.) > Economics > Export and Internationalization Management > Finance and Accounting > Management > Socioeconomics > Taxation and Accounting	English-taught MSc programs > Information Systems > International Management/CEMS > Marketing > Quantitative Finance > Socio-Ecological Economics and Policy > Strategy, Innovation, and Management Control > Supply Chain Management
German-taught doctoral/PhD programs > Doctoral Program in Business Law (Dr. iur.) > Doctoral Program in Social and Economic Sciences ³ > PhD in Economics and Social Sciences ³	English-taught doctoral/PhD programs > PhD in International Business Taxation > PhD in Finance

^{1) 2013} in full-time equivalents

²⁾ not including personnel funded by third parties
3) English track available

English-taught Master Programs

Duration: 4 semesters; full-time programs; 120 ECTS credits; degree awarded: MSc (WU), except for International Management/CEMS and Strategy, Innovation, and Management Control (see program details below)

GENERAL ADMISSION REQUIREMENTS

Relevant bachelor degree; proof of sufficient proficiency in English; proof of achievement potential (valid GMAT results). More information: wu.ac.at/prospective/en

APPLICATION PERIODS

WU employs a rolling admissions policy, allowing students to apply from the beginning of September until spring. Rolling admission for the academic year 2015/16 starts September 1st, 2014 with the following three priority deadlines: October 8th, 2014; January 8th, 2015 and March 8th, 2015 (March 8th ist not applicable for International Management/CEMS).

PROGRAM DETAILS

Information Systems

- Focus on IT-related knowledge with a particular emphasis on management and research topics
- Students acquire skills ranging from system analysis to system implementation
- > Based on state-of-the-art research

International Management/CEMS

- > Joint program: MSc (WU) and CEMS MIM degrees
- Focus on international strategy and cross-cultural management
- Internship abroad, business project and exchange semester

Marketing

- Focus on customer-oriented management concepts, marketing research and decision tools
- Qualifications for marketing specialist/executive positions, academic careers & advanced management consulting with a wide choice of marketing electives

Quantitative Finance

- Focus on building strong quantitative skills coupled with a solid knowledge base of the underlying theory of finance
- Students can choose between an Industry Track or a Science Track
- > Strong networks and links to the finance industry

Socio-Ecological Economics and Policy

- > Focus on socioeconomic analysis of sustainability issues
- Students choose two of four concentration areas in the fields of Environment, Population, Multi-Level Policy, and Social Policy

Strategy, Innovation, and Management Control

- Optional double degree in cooperation with selected partner schools
- Focus on all major aspects of organizational leadership, as well as corporate development and strategic management
- > Case studies, business projects and exchange semester

Supply Chain Management

- Focus on design and analysis of supply chains for focal companies
- Management and coordination of global supply chains
- Learn to measure, evaluate and control the quality of supply chain processes
- Discussions of recent issues in SCM with experts from the industry

For further details visit: wu.ac.at/master/en

WU International

WU is a truly international university, because it recognized the necessity of thinking beyond Austria's borders early on and has made internationalization a number one priority.

CONFIRMED QUALITY

WU's international students can be sure they are studying at a leading European university. WU's high standards in research and teaching are confirmed by the international and prestigious EQUIS accreditation – a seal of quality that has been awarded to about only 140 universities worldwide (www.efmd.org).

WU is also a member of respected associations like CEMS (Global Alliance in Management Education), an alliance of 29 top business schools and over 68 of the world's leading multinational companies (www.cems.org), and PIM (Partnership in International Management), a network of 58 highly-renowned business schools and universities around the globe (www.pimnetwork.org).

RANKINGS

International ratings like the Financial Times Ranking have repeatedly positioned WU and its programs among the top universities in its field, and document WU's continuous progress each year:

STUDY AROUND THE GLOBE

WU has successfully integrated many international aspects in its research and teaching over the past few years. With around 230 partner universities all over the world, WU maintains a strong international network. Today WU is involved in numerous externally-funded international research projects and has increased the number of its faculty members with international backgrounds, especially over the last few years.

INTERNATIONAL STUDENTS

As a result of these efforts, WU has a very high percentage of international students: Today, more than one out of every four WU students comes from outside of Austria (not including exchange students), and this number is growing from year to year. Currently, most of WU's international students are from Germany, Turkey, Eastern Europe, Italy, China, and the USA.



Living in Vienna

Vienna is consistently ranked the city with the world's highest quality of living according to Mercer's Quality of Living Survey.

HOUSING/ACCOMMODATION

WU has no on-campus dormitories or housing services. Still, accomodation can easily be found through the following channels or through newspapers/online ads:

- > **stuwo.at** nonprofit student housing organization
- > milestone.net high-quality living next to the WU
- > wihast.at/index.en.html Wihast Dormitories
- housing.oead.ac.at/index_e.asp OeAD Housing
 Office next to the campus
- jobwohnen.at list of available apartments to share provided by Austrian Students' Union

WORKING IN VIENNA

WU's ZBP Career Center is the first place to go with any questions regarding working in Austria (**zbp.at**)

- Job openings for students, graduates and young professionals
- Contacts to over 500 national and international companies
- > Approx. 1,500 job vacancies/year

LIVING COSTS

Life in Vienna is quite affordable, especially for a capital city

Accommodation

approx. € 300 – 450 per month

Health insurance

approx. € 50 per month

Essentials (food, personal expenses)

approx. € 300 per month

Public transport

approx. € 150 per semester

Books

approx. € 75 – 150 per semester





University of the Future

Internationalism, innovation, diversity – the new Campus WU is the concrete realization of WU's vision for a modern university. The fundamental principles of the new architecture reflect the values and ideas we cherish at WU.

As a public institution, WU has lived up to its responsibility of building its new campus in an economical, ecological, and socially sustainable manner. WU's decision to locate the new campus in Vienna's second district has redefined this area and transformed it into an educational hub. We have not only constructed new buildings, but in the process we have also given concrete realization to our ideas of what the university of the future should look like. The new campus is more than just a place for academic research and teaching and learning practical skills; it is also designed to create a new space for social, cultural, and political life.

The imposing Library & Learning Center (LC), designed by the Iraqi-British architect Zaha Hadid, is a testament to the central importance of research and teaching at WU. The Library & Learning Center is surrounded by five building complexes, including the Teaching Center, which houses most of WU's auditoriums. The Teaching Center is intended mainly for bachelor degree students, while the master degree programs are taught primarily in the

individual Department buildings. The Executive Academy building is the home of continuing education and lifelong learning programs. In this way, the various buildings and their functions reflect the three tiers of teaching and learning represented by the Bologna Process.

WU's Department-based organizational structure was also a contributing factor. In the past, the various Institutes that make up the Departments were scattered across different locations. Now they have been brought together in four Department buildings, making life much easier for both students and faculty.

These are not the only improvements the new campus has to offer: All rooms have natural light, and the auditoriums feature state-of-the-art teaching equipment, including digital whiteboards. There are 3,000 student workplaces, three times as many as in the old buildings in Vienna's ninth district. These workplaces are located not only in the dedicated self-study areas, but also in project rooms





that can be booked by teaching staff and students alike. They cater to different needs by providing quiet spots for focused academic work as well as opportunities for work on group projects in communication-friendly study areas.

The top priority in planning the new campus was to create an environment for WU students and staff that encourages productive work and communication.

Not only the buildings themselves, but also the surrounding grounds offer plenty of opportunities for communication and meeting people. 55,000 m² of Campus WU's total surface area of 90,000 m² is open, publicly accessible space. Fences or barriers would contradict our vision of an open campus.

Visitors and area residents are more than welcome at Campus WU. The campus offers not only food for thought, but also restaurants, cafés, and shops, all in a stimulating architectural environment.

As different as they may look, the buildings are all based on the same overall technical concept: the buildings' infrastructures are standardized in terms of construction, energy supply, ventilation, and sanitary facilities. The entire campus has been designed in accordance with "green building" principles. Much of the required energy is obtained using geothermal energy from groundwater.

Another key feature of Campus WU is barrier-free accessibility. All auditoriums are specially equipped for people with disabilities, all areas are designed to be wheelchair accessible, and the campus also features a tactile guidance system for the visually impaired.

We have not only made sure to comply with all relevant legal guidelines, but we have also drawn on experience gained from best practice examples. WU aims to play a pioneering role – in all respects.





INFORMATION AND CONTACT

To find out more about the Master in Supply Chain Management, please visit wu.ac.at/master/en/scm

Program Director of the Master
Supply Chain Management:
Werner Jammernegg, Tina Wakolbinger

For further questions please contact: Julia Landgraf (Program Coordinator) scm-master@wu.ac.at

For information concerning applications and admissions please contact: master.application@wu.ac.at

For all other study-related matters please contact: admission@wu.ac.at

