

**Institute of Management, University of Applied Sciences in Nysa**  
**Management and Production Engineering – full-time studies in ECTS system**  
**Specialisation: Automation of Production and Mechatronic System**  
**academic year 2015/2016**

**Year I, Semester 1 (winter)**

No.	Course	Course type	Hours	Credit*	Course credit obligatory for semester completion	ECTS points
<b>A. General education courses</b>						
1.	Etiquette in Public Life	lecture	15	grading	no	1
2.	Social Communication	lecture	15	grading	no	1
3.	Information Technology	lecture	15	grading	no	2
4.	Information Technology	laboratory	15	grading		
<b>B. Basic courses</b>						
5.	Physics	lecture	15	grading	no	3
6.	Physics	class	15	grading		
7.	Microeconomics, macroeconomics	lecture	30	<b>examination</b>	yes	5
8.	Microeconomics, macroeconomics	class	15	grading		
<b>C. Major courses</b>						
9.	Management	lecture	30	<b>examination</b>	yes	4
10.	Materials science	lecture	30	grading	no	3
11.	Engineering Design	lecture	30	grading	no	5
12.	Engineering Design	class	15	grading		
13.	Engineering Graphics, Informatics and Computer Aided Engineering	lecture	30	grading	yes	6
14.	Engineering Graphics, Informatics and Computer Aided Engineering	project	30	grading		
<b>Total:</b>			<b>300</b>		<b>Total:</b>	<b>30</b>

*\* all forms of credit are with a grade*

**Institute of Management, University of Applied Sciences in Nysa**  
**Management and Production Engineering – full-time studies in ECTS system**  
**Specialisation: Automation of Production and Mechatronic System**  
**academic year 2015/2016**

**Year I, Semester 2 (summer)**

No.	Course	Course type	Hours	Credit*	Course credit obligatory for semester completion	ECTS points
<b>A. General education courses</b>						
1.	Elective course (Business Ethic, Foundations of Sociology)	lecture	30	grading	no	2
<b>B. Basic courses</b>						
2.	Mathematics, Statistics, Operational Research	lecture	15	<b>examination</b>	no	4
3.	Mathematics, Statistics, Operational Research	class	30	grading		
4.	Physics	lecture	15	grading	no	4
5.	Physics	class	15	grading		
6.	Physics	laboratory	15	grading		
7.	Microeconomics, macroeconomics	lecture	15	<b>examination</b>	yes	4
8.	Microeconomics, macroeconomics	class	15	grading		
9.	Business Law	lecture	30	<b>examination</b>	no	3
<b>C. Major courses</b>						
10.	Production and service management	lecture	30	grading	yes	3
11.	Production and service management	laboratory	15	grading		
12.	Materials science	lecture	30	grading	no	3
13.	Materials science	laboratory	15	grading		
14.	Engineering Design	lecture	15	grading	no	4
15.	Engineering Design	project	30	grading		
16.	Engineering Graphics, Informatics and Computer Aided Engineering	lecture	15	grading	no	3
17.	Engineering Graphics, Informatics and Computer Aided Engineering	laboratory	30	grading		
<b>Total:</b>			<b>360</b>		<b>Total:</b>	<b>30</b>

\* all forms of credit are with a grade

**Institute of Management, University of Applied Sciences in Nysa**  
**Management and Production Engineering – full-time studies in ECTS system**  
**Specialisation: Automation of Production and Mechatronic System**  
**academic year 2015/2016**

**Year II, Semester 3 (winter)**

No.	Course	Course type	Hours	Credit*	Course credit obligatory for semester completion	ECTS points
<b>A. General education courses</b>						
1.	Foreign language	laboratory	30	grading	no	1
2.	Fundamentals of Intellectual and Industrial Property Rights	lecture	15	grading	no	1
<b>B. Basic courses</b>						
3.	Mathematics, Statistics, Operational Research	lecture	15	<b>examination</b>	no	4
4.	Mathematics, Statistics, Operational Research	class	15	grading		
5.	Marketing	lecture	30	grading	yes	3
6.	Marketing	seminar	15	grading		
<b>C. Major courses</b>						
7.	Raw Materials and Industrial Technology	lecture	15	grading	no	2
8.	Raw Materials and Industrial Technology	laboratory	30	grading		
9.	Enterprise Logistics	lecture	30	<b>examination</b>	no	4
10.	Enterprise Logistics	project	15	grading		
11.	Engineering Design	lecture	30	<b>examination</b>	yes	5
12.	Engineering Design	project	30	grading		
13.	Production Processes	lecture	15	grading	yes	3
14.	Production Processes	laboratory	15	grading		
15.	Metrology I	lecture	15	grading	no	3
16.	Metrology I	laboratory	15	grading		
17.	Engineering Graphics, Informatics and Computer Aided Engineering	lecture	15	grading	no	4
18.	Engineering Graphics, Informatics and Computer Aided Engineering	laboratory	30	grading		
<b>Total:</b>			<b>375</b>		<b>Total:</b>	<b>30</b>

\* all forms of credit are with a grade

**Institute of Management, University of Applied Sciences in Nysa**  
**Management and Production Engineering – full-time studies in ECTS system**  
**Specialisation: Automation of Production and Mechatronic System**  
**academic year 2015/2016**

**Year II, Semester 4 (summer)**

No.	Course	Course type	Hours	Credit*	Course credit obligatory for semester completion	ECTS points
<b>A. General education courses</b>						
1.	Foreign language	laboratory	30	grading	no	1
2.	Physical Education	class	30	grading	no	1
3.	Principles of business	lecture	30	grading	no	2
<b>B. Basic courses</b>						
4.	Mathematics, Statistics, Operational Research	lecture	15	grading	no	5
5.	Mathematics, Statistics, Operational Research	laboratory	30	grading		
6.	Ecology and Environmental Management	lecture	15	grading	no	2
<b>C. Major courses</b>						
7.	Cost Account for Engineers, Finance and Accountancy	lecture	30	<b>examination</b>	no	5
8.	Cost Account for Engineers, Finance and Accountancy	class	30	grading		
9.	Production Processes	lecture	30	<b>examination</b>	yes	4
10.	Production Processes	laboratory	15	grading		
11.	Metrology II	lecture	15	grading	no	4
12.	Metrology II	laboratory	15	grading		
13.	Engineering Graphics, Informatics and Computer Aided Engineering	lecture	15	<b>examination</b>	yes	4
14.	Engineering Graphics, Informatics and Computer Aided Engineering	laboratory	30	grading		
15.	Raw Materials and Industrial Technology	lecture	15	grading	no	2
16.	Raw Materials and Industrial Technology	seminar	15	grading		
<b>Total:</b>			<b>360</b>		<b>Total:</b>	<b>30</b>

\* all forms of credit are with a grade

**Institute of Management, University of Applied Sciences in Nysa**  
**Management and Production Engineering – full-time studies in ECTS system**  
**Specialisation: Automation of Production and Mechatronic System**  
**academic year 2015/2016**

**Year III, Semester 5 (winter)**

No.	Course	Course type	Hours	Credit*	Course credit obligatory for semester completion	ECTS points
<b>A. General education courses</b>						
1.	Foreign language	laboratory	30	grading	no	1
2.	Physical Education	class	30	grading	no	1
<b>B. Basic courses</b>						
3.	Mathematics, Statistics, Operational Research	lecture	30	grading	no	4
4.	Mathematics, Statistics, Operational Research	class	15	grading		
5.	Ecology and Environmental Management	lecture	15	grading	no	2
6.	Ecology and Environmental Management	seminar	15	grading		
<b>C. Major courses</b>						
7.	Cost Account for Engineers, Finance and Accountancy	lecture	30	grading	no	4
8.	Cost Account for Engineers, Finance and Accountancy	class	15	grading		
9.	Quality and Safety Management	lecture	30	<b>examination</b>	yes	5
10.	Quality and Safety Management	class	30	grading		
11.	Production Processes Automation and Robotics	lecture	30	grading	no	5
12.	Production Processes Automation and Robotics	laboratory	15	grading		
13.	Production Processes Automation and Robotics	project	15	grading		
<b>D. Specialization courses</b>						
14.	Designing Technological Processes for Typical Machine Parts	lecture	15	grading	no	4
15.	Designing Technological Processes for Typical Machine Parts	project	30	grading		
16.	Mechatronics in Production Engineering	lecture	30	<b>examination</b>	yes	4
17.	Mechatronics in Production Engineering	seminar	15	grading		
<b>Total:</b>			<b>390</b>		<b>Total:</b>	<b>30</b>

\* all forms of credit are with a grade

**Institute of Management, University of Applied Sciences in Nysa**  
**Management and Production Engineering – full-time studies in ECTS system**  
**Specialisation: Automation of Production and Mechatronic System**  
**academic year 2015/2016**

**Year III, Semester 6 (summer)**

No.	Course	Course type	Hours	Credit*	Course credit obligatory for semester completion	ECTS points
<b>A. General education courses</b>						
1.	Foreign language	laboratory	30	<b>examination</b>	yes	2
<b>D. Specialization courses</b>						
2.	Programming of CNC Machines	lecture	15	grading	no	2
3.	Programming of CNC Machines	laboratory	30	grading		
4.	Technical and Organizational Preparation of Production	lecture	15	grading	no	2
5.	Technical and Organizational Preparation of Production	laboratory	30	grading		
6.	Designing Mechatronic Devices and Systems	lecture	30	<b>examination</b>	yes	5
7.	Designing Mechatronic Devices and Systems	laboratory	15	grading		
8.	Designing Mechatronic Devices and Systems	project	15	grading		
9.	Computer Aided Manufacturing CAM	lecture	15	grading	no	3
10.	Computer Aided Manufacturing CAM	laboratory	30	grading		
11.	Fundamentals of Automation and Robotics	lecture	15	grading	no	3
12.	Fundamentals of Automation and Robotics	laboratory	15	grading		
13.	Drives and Hydraulic & Pneumatic Control in Mechatronics	lecture	30	<b>examination</b>	yes	5
14.	Drives and Hydraulic & Pneumatic Control in Mechatronics	laboratory	30	grading		
15.	Thesis	project	45	grading	yes	4
16.	Diploma Seminar	seminar	30	grading	yes	4
<b>Total:</b>			<b>390</b>		<b>Total:</b>	<b>30</b>

\* all forms of credit are with a grade

**Institute of Management, University of Applied Sciences in Nysa**  
**Management and Production Engineering – full-time studies in ECTS system**  
**Specialisation: Automation of Production and Mechatronic System**  
**academic year 2015/2016**

**Year IV, Semester 7 (winter)**

No.	Course	Course type	Hours	Credit*	Course credit obligatory for semester completion	ECTS points
<b>D. Specialization courses</b>						
1.	Sensors, Actuators and Servo-Drives	lecture	30	grading	yes	2
2.	Sensors, Actuators and Servo-Drives	laboratory	15	grading		
3.	Controllers in Industrial Networks - PLC	lecture	30	<b>examination</b>	yes	3
4.	Controllers in Industrial Networks - PLC	laboratory	30	grading		
5.	Exploitation of Mechatronic Devices	lecture	15	grading	yes	2
6.	Exploitation of Mechatronic Devices	seminar	15	grading		
7.	Operational Control in Production Systems	lecture	30	<b>examination</b>	yes	3
8.	Operational Control in Production Systems	laboratory	30	grading		
9.	Diploma Seminar	seminar	30	grading	yes	4
10.	Diploma Thesis	project	300	grading	yes	10
11.	Professional Practice		6 weeks		yes	6
<b>Total:</b>			<b>525</b>		<b>Total:</b>	<b>30</b>

*\* all forms of credit are with a grade*