

Hochschule Ulm



**Student Exchange Program  
Spring 2014**

**I.C.E.P.**

**International Computer Science and  
Computer Engineering Program**

**Hochschule Ulm  
Ulm University of Applied Sciences**

**Program Coordinator:**

**Prof. Dr. Joachim Hering  
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**International Office:**

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**August 2014**



## **Important Dates**

### **For participants of German intensive language course**

(The German intensive language course is ONLY offered for students without any or with little knowledge of German)

Arrival: **March 3<sup>rd</sup>, 2014, 9:00 a.m. – 3:00 p.m.**  
Registration and orientation: **March 4<sup>th</sup>, 2014, 9:30 a.m.**  
Campus Prittwitzstraße 10, Room B 115  
Intensive German class: **March 5<sup>th</sup> - March 20<sup>th</sup>, 2014**

**Please arrange your arrival on March 3<sup>rd</sup> between 9:00 a.m. and 3:00 p.m.**

### **For students who do NOT participate in the German intensive language course**

Arrival: **April 1<sup>st</sup>, 2014, 9:00 a.m. – 3:00 p.m.**  
Registration and orientation: **April 2<sup>nd</sup>, 2014, 9:30 a.m.**  
Campus Prittwitzstraße 10, Room B 115

**Please arrange your arrival on April 1<sup>st</sup> between 9:00 a.m. and 3:00 p.m.**

**Beginning of classes:** April 3<sup>rd</sup>, 2014  
**Breaks:**  
Easter: April 18<sup>th</sup> - April 21<sup>st</sup>, 2014  
Labor Day: May 1<sup>st</sup> 2014  
Ascension Day: May 29<sup>th</sup>, 2014  
Pentecost: June 7<sup>th</sup> – June 22<sup>nd</sup> 2014  
Whit Monday: June 9<sup>th</sup> 2014  
Corpus Christi: June 19<sup>th</sup> 2014

**Final exams:** June 23<sup>rd</sup> - June 27<sup>th</sup>, 2014  
**Departure:** June 30<sup>th</sup>, 2014

**Additional project work** July 1<sup>st</sup> - July 30<sup>th</sup>, 2014  
(4 weeks) optional

Students are welcome to stay at Hochschule Ulm for an additional month to work on a project in one of the university's laboratories. For more information, please get in touch with one of your professors of the regular ICEP classes.

**Coordination:**

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International Office (Akademisches Auslandsamt)  
Prittwitzstraße 10, room B 117, D-89075 Ulm  
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## Application

Every student needs to hand in:

- 4 passport-sized photographs
- Application form Incomings, Housing request form and Application form language course  
Download: <http://www.hs-ulm.de/Internationales/AAA/FormulareDownloads/>
- Resume
- Proof of valid Health insurance in Germany and Europe (incl. repatriation and evacuation). Please bring the original paper to the International Office after arriving in Ulm
- Valid passport (non US-citizens need an entry visa for Germany)
- Transcript of records
- A document from the home university explaining that the student is still enrolled at the home institution (could be one list for the whole group)

## Accommodation

Accommodations will be booked by the international office upon receipt of the housing request form. All students will stay in student residences, depending on availability. All rooms are single rooms. Kitchen and bathrooms are to be shared with other students. Please note: in Germany accommodation is not separated by gender. Bed sheets etc. will be provided. There will be some equipment for cooking; however we recommend to bring or to buy a small amount of personal kitchenware.

Housing prices are between €240 and €360 per month. Students will be placed by the housing office (Studentenwerk Ulm) on availability basis, unfortunately preferences cannot be considered. If you accept the room assigned, you have to sign the contract. A security deposit of EUR 300 must be made upon arrival. The money will be withdrawn from your German bank account which you will need to open during the first days of stay. We will assist you in doing so.

The checking-in into the dorms is possible from **Monday through Friday, 9.00 a.m. to 4.00 p.m.**

Please note that check-in and check-out are **only** possible Monday-Friday. We will assign student tutors to assist you when checking-in. For check-out please make an appointment with the janitor in your dorm **at least 10 days before you plan to leave** in order to have your room inspected.

## How to get to Ulm

### From Stuttgart Airport:

Take the underground (S-Bahn) S2 or S3 to Stuttgart main train station (Hauptbahnhof – Hbf). It will take you about 30 minutes. At the main train station take a train to Ulm. Trains leave to Ulm about every hour. It will take you about 1 hour to get to Ulm.

### From Munich Airport:

Take the underground to Munich main train station (Hauptbahnhof – Hbf). It will take you about 40 minutes. At the main train station take a train to Ulm. Trains leave to Ulm about every hour. It will take you about 1.20 hours to get to Ulm.

### From Frankfurt Airport:

There are direct trains to Ulm from Frankfurt Airport. Trains leave to Ulm about every hour. It will take you about 2.15 hours to get to Ulm.

### From Ulm main train station To Hochschule Ulm

If you give us a call we will send a student tutor to pick you up at the main train station. Otherwise take bus no. 7 to bus stop "Kliniken Michelsberg" and walk down the hill.

For train connections you can check at [www.bahn.de](http://www.bahn.de).

## After you arrive

Tutors will help you organizing your stay in Ulm. They will show you the university, the city and they will accompany you to the different offices.

The Activity fee for each student is €64.50. The Student ID cards will be handed out 1-2 weeks after arrival. For a €5 deposit students will get a plastic ID card. Students registering for the first time as residents in Ulm or Neu-Ulm will be given a free semester ticket (worth €99.50) for public transport. This allows you to take busses and trains in Ulm and its surroundings for free. After the first semester students are allowed to take the city busses in Ulm every evening after 7 p.m. and on Sundays and Holidays free of charge by showing their Student ID card.

## **Please bring the original proof of your health insurance!**

If you stay more than 3 month in Germany you have to go to the registration office in Ulm or Neu-Ulm and register in Germany. Student tutors will help you in filling out the needed forms and will accompany you to the registration office.

Within the first 2 weeks of your stay you will be provided with an E-mail account at Hochschule Ulm. The computer rooms are open from Monday through Friday from 7.30 a.m. until 7 p.m.

## Some more useful information

### For the Fall Term

We recommend bringing winter clothes and also proper clothes for rainy days. In Ulm we face temperatures between 10° Celsius and minus 10° Celsius in the winter. The location of Ulm offers plenty of opportunities to go skiing on a weekend.

If you would like to do so, please bring your skiing equipment. It's also possible to rent skis for those who don't want to bring them along. Ulm has some indoor swimming pools that you can visit, therefore swim clothes might be a good idea for those who enjoy swimming.

### For the Spring Term

In April it may still snow in Ulm so better bring some warm clothes. The temperatures in May and June can be quite warm and you may already use the outdoor swimming pools in June. If you want to do some traveling you should remember that southern Europe is a lot warmer at this time of the year.

### In general

For company visits we recommend dress clothes.

Living in a student dorm you do not need to bring linens. Blankets, sheets and pillows will be provided by the dorms but please bring your own towels. The floors will be shared with other students. Each floor has its own kitchen with some dishes, pots etc. The voltage in Germany is 230 Volt (50 Hz). You may buy an adapter to use electrical appliances here.

Copies of your passport, credit cards, driver's license etc. are very useful in case they are lost or stolen.

Most shops open at 8 a.m. and close normally at 6.30 p.m. (Saturdays at 6 p.m.) There are some shops that are open until 8 p.m., especially grocery stores. On Sundays every shop is closed.

## Money

You will need a minimum of €670 for living expenses per month. If you like you may open a bank account. Credit cards (most common is MasterCard, Visa and American Express) are honored in many places throughout Europe. Do not count on having your credit cards taken in every shop, but they are good to have in case of an emergency. Probably the best way to handle money is to take a supply of traveler's checks. Please do not bring large amounts of cash, this is very unsafe.

You will be required to open a German bank account in order to pay your rent and other expenses. This bank account is free of charge for students and we will assist you in opening it. You can also use it to receive money from your parents, sponsor etc. via bank transfer. You may collect money at the automatic teller machine (ATM) using an ATM card with your personal identification number (PIN). Furthermore the bank account will allow online banking. It costs once €9.90.

## **Food**

As the Hochschule Ulm and your dorms are not far away from the city center there will be some supermarkets and grocery stores nearby to buy food and drinks. The student canteen (Mensa) offers two menus (one vegetarian) each day.

## **Dates**

You may find the German way of writing dates is different from that which you are used to. To avoid any confusion when you are filling in documents, you should write dates as follows:

12<sup>th</sup> November 2010 = 12.11.2010 (12 = day, 11 = month, 2010 = year)

## **Some safety tips**

Ulm is a safe city in which to live and you should feel able to go out and about without fear. However as in most cities and countries throughout Europe you must use a common sense and be aware of your surroundings, particularly at night. Whenever possible, you should avoid walking alone at night and keep out of badly lit streets and lonely areas. Do not accept lifts from strangers and lock your room when you leave it. Let a friend or roommate know where and with whom you will be and do not leave your belongings unattended.

## **Field trips**

Cultural field trips for example to Munich to visit the German Museum or to the Christmas market in Nuremberg will be organized by the International Office.

There will be several field trips to industrial companies (e.g. Porsche, BMW and Daimler), some of them combined with places of general interest. Attendance is required. If students have special interests, we will try to arrange a visit. The dates are mainly given by the visited company and may include Monday mornings or Friday afternoons.

**We are looking forward to seeing you in Ulm!**

Stephanie Wagner + Anita Everett + Jeanette Kolb  
(International Office)



## **Travel tips**

We know that some of you like to spend the weekend traveling in small groups. Therefore we have here some proposals. You can reach all these places by train. Many of them belong to the UNESCO world heritage.

### **Bamberg / Germany**

This is one of the most beautiful old towns in Germany. With early gothic cathedral, renaissance places, medieval houses and a lot of typical pubs. Recommended time of visit: 1-1.5 days.

### **Oberstdorf / Mountain Hiking**

With the local train to Oberstdorf, then hiking to the Freibergsee (Lake) and further with the cable car to the summit of the Fellhorn (2000 m). Then to the summit of the Kanzelwand and downhill with another cable car to Riezlern. Back to Oberstdorf by bus, and then the train back to Ulm. Time: 1 day. (Before the end of October as the cable car will be out of operation.)

### **Verona and Venice / Italy**

Verona is the place of Romeo and Julia, with a roman amphitheater and a marvelous medieval town center. Venice is a unique place in the world from the 16<sup>th</sup> and 17<sup>th</sup> century. There is a night train to Verona, and it takes only 2 more hours to Venice. Time: 2 days with night trains.

### **Avignon / France**

The south of France has kept its flair and one can take advantage of the better climate and still sit outside in the cafe. The city was the residence of the catholic popes for some time and the palace is still there. It also has the famous bridge. Maybe you know the song: "Sur le pont de Avignon". Time: 2 days, with night trains.

### **Cinque Terre and the Mediterranean Sea / Italy**

This is a famous "pirate coast" with villages on top of steep cliffs above the Mediterranean Sea. It has no roads but hiking trails, and a small railway connecting the villages. It can be easily reached by train to Genova / Italy and then with a local train direction Rapallo. You need good weather. Time: 2 days, with night trains.

## **Courses**

**Computer Networks** (Professor Schäffter)

**Machine Vision** (Professor Frey)

**Operating Systems** (Professor Hering, Professor Steiper)

**Computer Architecture** (Professor Strahnen)

**German History in the last 3 centuries** (Professor Kratzer)

**German Language** (t.b.a.)

Attendance is required. Hochschule Ulm can not guarantee that Friday will be free for students

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| <b>COMPUTER<br/>ARCHITECTURE</b> |
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|---------------------|---|
| Department          | Computer Science  |
| Coordinators        | Professor Dr. Manfred Strahlen  |
| Catalog Description | The fundamental concepts in computer architecture and organization are presented. Topics include arithmetic logic unit design, control unit design, memory and cache organization, input/output and peripheral buses, pipelining, RISC-architectures and parallel processing. Laboratory assignments using VHDL simulation are an essential part of the course. Examples of advanced computer architecture are presented. |
| Prerequisites       | CE-210, Digital Systems I<br>CE-320, Microcomputers I   |
| Class/Lab Schedule  | Three class periods and two lab periods per week  |
| Textbook            | William Stallings, <i>Computer Organization and Architecture</i> , Prentice-Hall , 2000   |
| Other Materials     | handouts to be distributed  |
| Credits             | Computer Science/Computer Engineering: 4 credits  |

### Relationship to Program Educational Objectives

This course contributes to students' achievement of the Computer Science Program Educational Objectives as outlined below:

- Objective 1: Students are introduced to the principles of architecture and organization of computers as well as to advanced architecture concepts.
- Objective 2: Students are introduced to the design and simulation of computers, using VHDL.
- Objective 3: The course gives the student an understanding of state of the art computers.
- Objective 4: During the last weeks of the term, students work in teams on a project. Each team designs a specific simple computer and tests it by simulation.
- Objective 5: The course prepares the student for self-learning, graduate work and technical projects in computer architecture.

## Topics

1. Review of digital Systems
2. Introduction to computer architecture
3. VHDL modeling
4. Arithmetic operations on integers and their implementation
5. Floating point arithmetic
6. Addressing modes and instruction set
7. Control unit, hardwired and microprogrammed
8. Interrupts and exceptions
9. Advanced memory organization
10. Cache principles and design
11. Input/output and peripheral buse systems
12. Pipelining and RISC-architecture
13. MIMD-class computers

## Course Learning Objectives

Each student who receives credit for this course will have demonstrated the ability to do all of the tasks listed below:

1. State the function of each unit in a typical computer system
2. Design a simple arithmetic logic unit
3. Write the algorithms for implementation of arithmetic operations on integers
4. Understand the representation of floating point numbers (IEEE 754)
5. Analyze and specify the instruction set for a small computer
6. Design a simple control unit for a computer
7. Write a VHDL model of a small computer
8. Debug a VHDL model
9. Analyze the results of a VHDL simulation
10. Understand the structure of cache-memory systems
11. Understand the principles of input/output and peripheral buse systems
12. Analyze the function RISC- and MIMD-Computers

**Computer Networks**

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|                     |   |
|---------------------|---|
| Department          | Computer Science  |
| Coordinator         | Professor Dr. Markus Schäffter                                      |
| Catalog Description | Organization and Programming of Computer Networks                   |
| Prerequisites       | CS-202, Systems Programming Concepts CE-320, Microcomputers         |
| Class/Lab Schedule  | Three class periods and one 90-minute lab period per week           |
| Textbook            | A. Tanenbaum, Computer Networks, Third Edition, Prentice Hall, 1996 |
| Other Materials     | Separate books or web-pages supporting the programming exercises    |
| Credits             | Computer Science/Computer Engineering: 4 credits                    |

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**Relationship to Program Educational Objectives**

This course contributes to students' achievement of the Computer Science Program Educational Objectives as outlined below:

- Objective 1: Computer Networks become a major part in the design of software systems. The internet technology is more and more integrated into most computer applications. The course prepares students for the construction, design and programming of interconnected computer systems.
- Objective 2: Students work in teams on a project assignment, developing further their teamwork, communication and interpersonal skills while working on technical projects.
- Objective 3: This course provides a broad technical experience required to analyze and the design of computer networks and supporting software infrastructure.
- Objective 4: The opportunity for self-directed projects on topics for personal interests develops the students' ability for self-directed study using modern media like the internet.

## Topics

1. The ISO/OSI-Model
2. The physical layer (media types)
3. Data link layer protocols (Ethernet, token, ppp)
4. Networking layer (addressing, routing, flow control)
5. Interconnection Components (Hubs, Switches, Router, Gateways)
6. The Internet-Protocol suite (IP, TCP, UDP)
7. TCP/IP Supporting Protocols (ARP, ICMP, RIP)
8. Application Layer Protocols (SMTP, HTTP, POP, SNMP, HTTP)
9. Naming and Directory Systems (DNS, NDS, Active-Directory)
10. The Socket Programming Interface
11. Higher Layer API's (RPC, DCOM, Corba)
12. Security issues (attacks, firewalls, encryption)

## Course Learning Objectives

Each student who receives credit for this course will have demonstrated the ability to do all of the tasks listed below:

1. Describe the function of each layer in the OSI (or TCP/IP) model.
2. Explain the characteristics of several types of physical media.
3. Understand the "multiple access" problem of LAN's.
4. Has information about internet-addresses and routing problems.
5. Can build a network infrastructure using hubs, switches and router.
6. Has the knowledge of setting-up the ip network configuration (unix, windows)
7. Knows the difference of connection-oriented and connectionless protocols.
8. Describe several application protocols.
9. Knows how to use naming-systems (DNS).
10. Can send network-packets using the socket interface.
11. Has knowledge about using DCOM and Corba.
12. Is able to setup and configure a firewall (linux).

**Machine  
Vision**

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| Department          | Computer Science   |
| Coordinator         | Professor Dr. Herbert Frey   |
| Catalog Description | The principles and methods of machine vision. Camera techniques, illumination, optics, calibration, frame grabber, image processing, filters, segmentation, binary image processing, feature extraction, classification. |
| Prerequisites       | CS-101 Computing & Algorithms I<br>CS-102 Computing & Algorithms II  |
| Class/Lab Schedule  | Three 60-minutes class periods and one 60-minute lab period per week   |
| Textbook            | Ramesh Jain, Rangachar Kasturi and Brian G. Schunck, <i>Machine Vision</i> , McGraw-Hill, 1995   |
| Other Materials     | None   |
| Credits             | Computer Science: 4 credits  |

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### Relationship to Program Educational Objectives

This course contributes to students' achievement of the Computer Science Program Educational Objectives as outlined below:

- Objective 1: The ability to analyze a machine vision problem and to design a suitable system. This includes the selection of hardware components as well as the selection of methods and tools.
- Objective 2: Students will gain the ability to describe and solve machine vision problems.
- Objective 3: The course will gain students ability to work on interdisciplinary projects.
- Objective 4: The course incorporates a hand-on laboratory experience on machine vision including programming machine vision techniques in C++.

### Topics

1. Introduction
2. Binary Image Processing
3. Regions
4. Image Filtering
5. Edge Detection
6. Contours
7. Optics
8. Color
9. Calibration
10. Object Recognition

## Course Learning Objectives

Each student who receives credit for this course will have demonstrated the ability to do all of the tasks listed below:

1. Design a machine vision system: camera, optics, illumination, frame grabber.
2. Describe the image formation process in a camera.
3. Choose (and defend) the appropriate method to apply to a given machine vision problem.
4. Describe the fundamental concepts of filtering.
5. Apply image processing techniques to image material.



**Operating Systems I**

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| Department          | Computer Science  |
| Coordinators        | Professor Dr. Joachim Hering<br>Professor Dr. Stefan Traub  |
| Catalog Description | Operating system function and implementation; process and thread management, scheduling and synchronization; deadlock; real and virtual memory management, file-system structure and implementation. Case studies of historical and modern operating systems. |
| Prerequisites       | CS-202, Systems Programming Concepts; CE-320, Microcomputers I  |
| Class/Lab Schedule  | Three class periods and one 90-minute lab period per week   |
| Textbook            | Abraham Silberschatz and Peter Baer Galvin, <i>Operating System Concepts</i> , Addison-Wesley, 1998   |
| Other Materials     | Linux manuals, source code handouts (to be distributed in the lab)  |
| Credits             | Computer Science/Computer Engineering: 4 credits  |

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**Relationship to Program Educational Objectives**

This course contributes to students' achievement of the Computer Science Program Educational Objectives as outlined below:

- Objective 1: Operating systems is recognized by the ACM and IEEE-CS as a fundamental area of computer science. Material presented in this course prepares a student to continue work in several different systems areas of computer science. Modern programming techniques involving multitasking and thread programming are presented.
- Objective 2: Analysis of working operating system code in the laboratory provides depth of knowledge in operating systems.
- Objective 3: Students will work in small, interdisciplinary teams during the laboratory sessions.
- Objective 4: The class and laboratory provide hands-on experience in a modern and high demand discipline.

## Topics

1. Operating system terminology. History of operating systems; overview of parallel, distributed and real-time operating systems.
2. Overview of computer architecture. Hardware and operating systems.
3. Processes and threads. Process scheduling. Interprocess communication.
4. CPU scheduling and algorithms. Multi-processor and real-time scheduling.
5. Process synchronization. Semaphores. Classical problems of synchronization.
6. Deadlock: characterization, prevention, avoidance, detection and recovery.
7. Memory management. Swapping, contiguous allocation, paging and segmentation.
8. Virtual memory. Demand paging. Page replacement and frame allocation. Thrashing. Demand segmentation.
9. Files and directory structure. Consistency semantics.
10. File-system implementation.

## Course Learning Objectives

Each student who receives credit for this course will have demonstrated the ability to do all of the tasks listed below:

1. Give the basic structure of an operating system, and explain the purpose of each part.
2. Explain the relevance of architectural features to an operating system.
3. Discuss the history of operating systems, listing features of important systems.
4. Explain the process state diagram and the process control block.
5. Write code to implement context switching, job and CPU scheduling.
6. Write code to solve the classical problems of synchronization, using semaphores.
7. Implement critical regions and/or monitors using semaphores.
8. Describe algorithms for deadlock prevention, deadlock avoidance and deadlock recovery.
9. Describe algorithms for physical memory management, including swapping, contiguous allocation, paging, segmentation and paged segmentation.
10. Evaluate page-replacement algorithms in a demand paging environment, including discover and correction of thrashing.
11. Describe the directory structure in a modern operating system.

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| <b>Germany In The Last Three Centuries</b> |
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|---------------------|---|
| Department          | Computer Science  |
| Coordinator         | Professor Dr. Klaus Peter Kratzer   |
| Catalog Description | German history up to and including reformation and the Thirty Years War; culture, society, and political developments in the 18 <sup>th</sup> century; reform and liberation; German federation; revolution in 1848; Bismarck and his struggle for Prussian hegemony; the German Empire & the 1 <sup>st</sup> World War; the Weimar Republic; Nazi Germany & the 2 <sup>nd</sup> World War; the aftermath of the wars; detente and German reunification |
| Prerequisites       | None  |
| Class/Lab Schedule  | Four class periods per week   |
| Textbook            | Martin Kitchen: <i>Cambridge Illustrated History of Germany</i> , Cambridge University Press, Cambridge 1996  |
| Other Materials     | Numerous source materials (print, audio, video) in English or in English translation (to be distributed in class)   |
| Credits             | Liberal Studies: 4 credits  |

### Relationship to Program Educational Objectives

Similar to other LS courses

### Topics

1. An Overview of German history up to and including reformation and the Thirty Years War.
2. Culture, society, and political developments in the 18<sup>th</sup> century. The rise of Prussia. The impact of the French revolution.
3. Reform and liberation. German federation. German nationalism in the 19<sup>th</sup> century as expressed in music and literature.
4. Revolution in 1848. Bismarck and his struggle for Prussian hegemony.
5. The German Empire & the 1<sup>st</sup> World War. The foundation of the Reich. Bismarck's domestic policy. Colonial policy. The culture of the Wilhelmine Empire. Crises and naval building. The 1<sup>st</sup> World War.
6. The Weimar Republic. Foundation of the Republic. The Versailles Treaty. Crises & fulfillment. The collapse of the republic.
7. Nazi Germany & the 2<sup>nd</sup> World War. The pseudo-democratic establishment and consolidation of the Nazi state. Social life and economic policy. The 2<sup>nd</sup> World War. Concentration camps and the Holocaust. The collapse of Nazi Germany.

8. The aftermath of the wars. Germany under occupation. The Iron Curtain. The foundation of the Federal Republic and the German Democratic Republic. Integration in different systems of alliances.
9. Detente and German reunification. The economic miracle in West Germany. West Germany's "east policy". The collapse of East Germany. Reunification and consolidation.

### Course Learning Objectives

Each student who receives credit for this course will have demonstrated the ability to do all of the tasks listed below:

1. Describe and explain the political developments in and around Germany for the period under discussion
2. Describe and explain the socio-cultural evolution in Germany for the period under discussion
3. Explain the development of the German political system
4. Explain attitudes and customs in present-day Germany from an historical viewpoint

### Overview of Klaus Peter Kratzer's CV

- Native German born 04/13/1958 in Nuremberg, Germany
- School education 1964-1976
- Erlangen-Nuremberg University 1976-1981 (diploma in computer science)
- Freelance work for IBM 1978-1981
- Triumph-Adler AG, Nuremberg (local computer manufacturer) 1981-1983
- Erlangen-Nuremberg University 1983-1986 (PhD in computer science)
- IBM Almaden Research Center, San Jose, CA 1987
- Hochschule Ulm CS Dept 1988-present

Lifelong interest in history --- study of numerous textbooks, biographies, and source materials

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| <b>German Language</b> |
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|---------------------|---|
| Department          | Basic Studies   |
| Coordinator         | Ms. Gremer  |
| Catalog Description | see below   |
| Prerequisites       | None  |
| Class/Lab Schedule  | Six class periods per week  |
| Textbook            | Eurolingua Deutsch Band 1, Cornelson<br>Supplementary material on German studies<br>provided by course Coordinator      |
| Other Materials     | Numerous source materials (print, audio, video) in<br>English or in English translation (to be distributed in<br>class) |
| Credits             | 2 or 4 credits  |

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#### Topics:

This course will provide basic competence in speaking and reading German.

- ◆ Listening, speaking, understanding
- ◆ First contacts; shopping; describing the way;
- ◆ Telephone conversations; biographical details
- ◆ Writing and Reading
- ◆ Notes; texts; simple letters; price lists; use of dictionaries;
- ◆ Advertisements; poems

Grammar will include

definite and indefinite articles; singular and plural; conjugation of verbs; separable verbs; tenses; prepositions with dative and accusative

At the end of the course students have to sit an examination.