LUX

School of Informatics
Undergraduate Program

Bloomington and Indianapolis Campuses

2000/02

Bulletin

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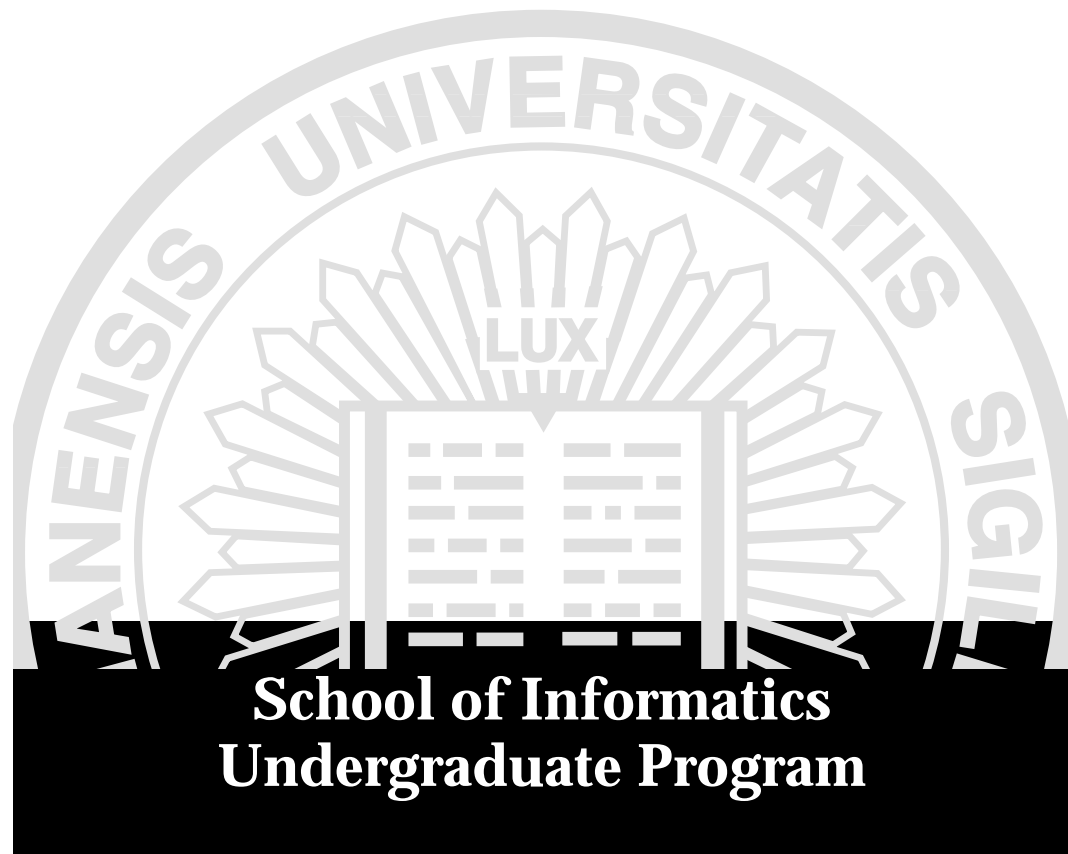
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INDIANA UNIVERSITY

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When you become a student at Indiana University, you join an academic community internationally known for the excellence and diversity of its programs. Indiana University is one of the nation's oldest and largest state universities, with eight campuses serving 92,000 students. IU also offers courses through facilities at Columbus, Elkhart, and many other sites.

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Indiana University Bloomington

Indiana University–Purdue University Indianapolis

Contents

Information Technology in Today's Learning

When Indiana University was founded in 1820, only Greek and Latin were taught. The curriculum has obviously changed over time, in response to both intellectual and practical needs. The most recent school to be established at Indiana University, the School of Informatics responds to the world's changing needs.

One might say that programming languages and software tools are the Greek and Latin of our times, and no person can be called truly educated without mastery of these "languages." It is not intended to suggest that the classical languages, or any natural languages, have been supplanted by C++ and Java. Indeed, making available the classical corpus in searchable digital form was one of the first applications of computing to the humanities. The point is to suggest the pervasiveness of information technology in all of civilized life. Much as Greek and Latin opened doors to the scholarship of the nineteenth century, so does information technology open doors to the art and science of the twenty-first century.

The development of networks and distributed systems over the past several decades has changed forever the notion of a computer as something that merely "computes." The computer now is an "information processor." Also gone is the idea of a computer as a stand-alone system. Instead it is a "communication node." Arthur C. Clarke once said that "a sufficiently advanced technology is indistinguishable from magic." Unfortunately many people see computers and the Internet as magical. The mission of the School of Informatics is to educate citizens that advanced information technology is indistinguishable, or at least inseparable, from science and the arts.

The School of Informatics

Moore's Law says that computing power doubles every 18 months. Regardless of whether that law is literally correct, it illustrates the rapid changes in information technology that will continue throughout the foreseeable future. The School of Informatics prepares student to meet the increasing demand for information technology professionals. The curriculum combines knowledge of a specific subject area (or cognate area) with the concepts in informatics that will help them adapt to technological changes throughout their careers. The proverb says that if you give people fish, you've fed them for a day, but if you teach them how to fish, you've fed them for a lifetime. Like the proverb, informatics teaches students how to adapt to technological changes while preparing them for lifelong learning in their careers and in their lives.

The undergraduate curriculum looks at information technology from a liberal arts perspective. It goes well beyond a "trade school" approach to educate students in the underlying science of information and information technology and to explore their human implications. The School of Informatics educates students in the technical, psychological, and social aspects of information technology and, at the same time, educates them in the application of information technology to another discipline or "cognate area."

The curriculum is designed in two axes. One axis is the technical dimension, running from the logical and mathematical foundations of information technology to the issues of distributed information and knowledge systems. The other axis represents the human dimension, from the individual working with a computer and the area of human computer interaction to groups interacting via computers with each other and the areas of social and organizational informatics. Where these two axes cross, we have the intersection of the human and the technical, of art and science. Also at that intersection we have "new media"—the use of computers and the Internet as multimodal communication devices that allow the expression of the human spirit through the visual arts, music, voice, and text. Thus we have the five areas of the informatics curriculum: mathematical foundations, distributed information, human computer interaction, social/organizational informatics, and new media.

The curriculum gives students a solid foundation in the five areas while encouraging them to specialize their training through informatics electives and by applying their informatics skills in a cognate area. Bridging the specialization and cognate area is a year-long senior capstone project in which they will not only further specialize but learn practical skills, including teamwork. Central to the idea of the informatics major is that students learn how information technology relates to a traditional discipline in the liberal arts or the professions. Therefore, students take 15–18 credit hours in a cognate area that both

grounds students in the discipline and emphasizes some combination of applications, implications, and foundations of information technology.

In addition to knowledge of core informatics and of informatics in the context of a traditional discipline, students also must take a set of general education courses to ensure that they can communicate clearly in both written and spoken English, read effectively, and reason quantitatively. They must be able to raise and rationally debate ethical concerns suggested by information technologies and their interactions with other people. Students also must have some knowledge of the world and its peoples, and their cultural, artistic, and scientific achievements. To this end, the general education requirement exposes students to the arts and humanities, social and historical studies, and the natural sciences.

The school offers a Bachelor of Science degree, four specialized professional master's degrees, and a variety of undergraduate and graduate programs in new media. Degrees in informatics not only combine existing course offerings, but also create innovative courses and curricula in new and emerging aspects of information technology. Informatics research is conducted at the Informatics Research Institute, which provides expanded educational opportunities for both undergraduate and graduate students.

The Development of the School of Informatics

The School of Informatics has grown out of years of planning and discussion, both at IUB and IUPUI. In the fall of 1997, a Taskforce on Informatics, chaired by Richard Shiffrin (Director of the Cognitive Science Program, IUB), was formed to study ways in which the university could capitalize on its strengths in information technology and to make a recommendation for further development. The membership of that taskforce came from both the IUB and IUPUI campuses and represented a wide range of disciplines involved in information technology. This taskforce report recommended that IU establish the School of Informatics.

In the summer of 1998, President Myles Brand created an Informatics Planning Committee chaired by Dennis Gannon (Chair of Computer Science, IUB). The committee was charged with developing a detailed implementation plan for this metaschool. The committee document outlined how an undergraduate degree in informatics could fruitfully require a substantial number of courses in an area outside of the core informatics courses. It also

called for the creation of a research institute and for a small core faculty. The Informatics Planning Committee gave the following motivation for the new school:

The movement of society into the information age involves developments in information science and technology, distributed information processing, computer and cognitive science, social aspects of dealing with distributed information, knowledge retrieval, distributed teaching and learning, information dissemination, and many related themes. All academic and research programs at IU are (or shortly will be) affected by these developments. This task force recommends that a new school, tentatively titled "School of Informatics," be formed to promote teaching, training, and research in these areas, and thereby play a catalyzing role in this ongoing evolutionary process.

On January 1, 1999, President Brand appointed an interim dean, J. Michael Dunn (Computer Science and Philosophy, IUB) and an interim associate dean, Darrell Bailey (Music and New Media, IUPUI). With the guidance of a multidisciplinary faculty advisory committee of more than 50 members, the school began to take shape. The Indiana Commission for Higher Education formally approved the school in November, authorizing IU to admit its first informatics majors in the fall of 2000.

One School, Two Campuses

The School of Informatics spans the IU Bloomington (IUB) and Indiana University Purdue University Indianapolis (IUPUI) campuses. By combining the strengths of these two campuses, the School of Informatics is able to create a unique environment that enables students to earn degrees with strong information technology components in arts, humanities, science, and the professions. The expert faculty and excellent technological resources foster a synthesis of academic disciplines and cultures. Faculty from varied departments share developments in the fast-moving information technology areas through the School of Informatics and its degree programs. The school is actively forging cooperative arrangements with employers in the state and region and creating internships, cooperative education programs, and opportunities for learning through service.

The Bloomington Campus

Indiana University Bloomington (IUB) is a residential campus that offers undergraduate, professional, and graduate degrees in more than 70 fields of study. In the fall semester of

1999, the campus had a total enrollment of 36,201, including 27,461 undergraduates and 7,269 students in graduate and professional programs. More than 30 schools and departments at IUB are ranked among the top 10 nationally, with more than 100 ranked in the top 20 in their respective fields.

University Libraries at IUB

The University Libraries at IUB rank third in collection size among the Big Ten universities, fourth in the Committee on Institutional Cooperation (CIC), and thirteenth in the nation among major research libraries. The libraries' collections include 6 million bound volumes, 4 million microforms, and more than 40,000 current serials. The Main Library houses the undergraduate library and extensive graduate research collections as well as reference services, technical services, government publications, and other essential library services. The Main Library also is home to 4 student computing centers that provide access to more than 200 computer workstations. These facilities are complemented by the 13 campus libraries serving diverse disciplines, such as music, optometry, chemistry, geology, education, business, journalism, and other areas.

University Information Technology Services at IUB

University Information Technology Services (UITS) at IUB supports the application, use, and development of information technology for research, teaching, and learning. UITS makes available more than 1,200 computer workstations located in 43 Student Technology Centers for both scheduled instruction and individual study and more than 200 "InfoStations" and other limited-use workstations in locations across campus for access to e-mail and the Web. The Assistive Technology Lab, located in the Main Library, offers programs and specialized information technology services for students with disabilities. Research computing facilities on campus include the CAVE virtual reality lab, two high-performance supercomputers (a 47-processor IBM SP and a 64-processor SGI/Cray Origin2000), a multiterabyte massive data storage system, and a state-of-the-art campus backbone network. Another strength UITS brings is the Network Operations Centers for both Abilene (Internet 2) and TransPac. These (more fully described in the next section) are housed on the IUPUI campus, but scholars and students in Bloomington also benefit from these high-speed communication links.

In its annual list of America's 100 most wired colleges, *Yahoo! Internet Life* has ranked IUB the ninth most "wired" campus in the country, and for the third year in a row has ranked it

second among public institutions of higher education. This ranking considers the categories of computer availability and type, undergraduate personal computer use, e-mail use and access, Web space use and access, networking, degree and distance learning, and educational and administrative uses.

IUB Honors Division

The School of Informatics encourages superior students to take advantage of the variety of opportunities offered through the Honors Division and is pleased to help honors students plan their individual programs.

Grants and Scholarships at IUB

The School of Informatics is developing new sources of funding, and students are encouraged to review the Informatics Web site for up-to-date information. At the date of publication, scholarships and awards are funded by the Lilly Endowment and Silicon Graphics, Incorporated.

Grants and scholarships also are available through other IU offices, such as Honors Division. Students are encouraged to consult with the Office of Student Financial Assistance (www.indiana.edu/~sfa) for additional funding opportunities.

The IUPUI Campus

IUPUI is an urban campus that combines IU and Purdue programs. In the fall semester of 1999, its schools had a total enrollment of 27,587, including 20,416 undergraduates and 7,171 students in graduate and professional programs. IUPUI currently ranks among the 10 largest campuses in the nation that offer graduate professional degrees.

IUPUI Library

The IUPUI library is a technology learning center that symbolizes the university's real and virtual information resources. It supports teaching and learning in classrooms, in faculty offices, at the hundreds of workstations in the library, in the 18 centrally supported campus learning centers, and in the home workstations and offices of students. Current holdings within the IUPUI University Library include more than 1,338,889 volumes, more than 36,000 current periodicals and journals, more than 1,197,000 microforms, and more than 152,400 government documents and audiovisual materials. The library also includes excellent resources, a powerful communications infrastructure, and widely deployed workstations for students. There are 1,760 data connections in the building that are run throughout the building to 640 individual carrels for laptop connectivity, 8 computer clusters, 42 group study rooms, 40 faculty study rooms, a 50-seat general classroom,

2 computer classrooms, a 100-seat auditorium, and an adaptive educational services center.

University Information Technology Services at IUPUI

University Information Technology Services (UITS) at IUPUI supports the application, use, and development of information technology for research, teaching, and learning. Students have access to more than 500 public workstations on campus. UITS partners with academic schools on campus to provide consulting support in 16 student technology centers and operates another 2 centers as campus-wide resources. The network operations center for Abilene, the high-speed Internet2 backbone network, is located on the IUPUI campus, as is the network operations center for TransPAC, a high-speed network connecting the United States to countries in Asia and the Pacific Rim. The IUPUI campus also is home to the Cisco Networking Academy Training Center and the Cisco Certified Internetwork Expert (CCIE) Practice Lab. One of two such labs in the nation, the CCIE lab provides a testing environment for networking professionals worldwide who are candidates for certification as Cisco Certified Internetwork Experts.

Because Indiana's government, business, industry, finance, health, service, and nonprofit organizations are centered in Indianapolis, the urban environment plays an important role as a learning resource for students enrolled in the informatics programs. Many of the state's communication industries are concentrated in the capital city and the larger organizations based here have made commitments to improve their communication and business processes through the use of information and information technology. IUPUI has established strong working relationships with both industry and government agencies in communications, information technology, and media arts and sciences.

IUPUI Honors Program

The IUPUI Honors Program offers special opportunities for academically superior students to do honors work or pursue department or general honors degrees. Undergraduates may enroll in independent study, H-Option courses, graduate courses, or designated honors courses. Students should check the *Schedule of Classes* for course offerings.

Students who have SAT scores of 1100 or above, rank in the top 10 percent of their high school class, or have a 3.30 grade point average are eligible to enroll in honors courses. For additional information on honors degrees contact the Honors Office, University College 3140, at (317) 274-2660.

Degrees Awarded with Distinction at IUB and IUPUI

For those graduating in the top 10 percent of their undergraduate class, the School of Informatics awards bachelor's degrees with three levels of distinction: Distinction (3.5 GPA); High Distinction (3.75 GPA); and Highest Distinction (3.9 GPA). The level of distinction is determined by the overall Indiana University grade point average. Students must have taken 60 graded credit hours at Indiana University.

The level of distinction is printed on both the final transcript and the diploma.

Informatics Research Institute

Research and theory in informatics move rapidly to application and development. The faculty teaching in the School of Informatics participate in research activities and new applications of technology. As a result, faculty can transmit state-of-the-art knowledge to their students. Indiana University is capitalizing on this great research strength in informatics at both IUB and IUPUI with the formation of an Informatics Research Institute (IRI). The Informatics Research Institute will conduct research in areas of emphases shared with the School of Informatics, including: fundamental research in human computer interaction; fundamental research in capturing, managing, analyzing, and explaining information and making it available for its myriad uses; and expanding research into policy and socioeconomic issues arising from information technology.

Undergraduate Programs

The School of Informatics offers a Bachelor of Science in Informatics, a Bachelor of Science degree in Media Arts and Science , and an Associate of Science degree in Media Arts and Technology.

The very nature of these degrees, with the changing technologies and applications, requires that the content of each degree be continuously assessed and revised. Therefore, the faculty of the School of Informatics will periodically review and revise the curricula to ensure that students are prepared to meet contemporary workplace and intellectual demands. Please contact the School of Informatics office, or refer to our Web site at www.informatics.indiana.edu, www.informatics.iupui.edu, or newmedia.iupui.edu to confirm current program requirements.

Admission

Admission to the School of Informatics, IUB

Students wishing to major in informatics must be admitted to Indiana University and first enter the University Division at IUB. Freshmen should begin to satisfy specific degree requirements in the first year. Undergraduates who wish to be admitted to the School of Informatics must first satisfy the following requirements:
1. Complete 26 credit hours of course work that can count towards a degree in informatics with a minimum cumulative grade point average of 2.0 (C).
2. Complete INFO I101, Introduction to Informatics, with a minimum grade of C.
3. Complete the English composition requirement (ENG W131 or equivalent) with a minimum grade of C.
4. Complete the fundamental math skills requirement (MATH M118, M119, or equivalent) with a minimum grade of C.

Students meeting these requirements must complete a School of Informatics Application form before being considered for admission to the School of Informatics. Application forms are available in the informatics office. Application deadlines are July 1 for fall semester, December 1 for spring semester, and April 15 for both summer sessions.

Admission to the School of Informatics, IUPUI

After students have been admitted by the Enrollment Center at IUPUI, the specific school in which they intend to pursue a degree

also must admit them. The School of Informatics welcomes nontraditional students and students entering directly from high school if they wish to pursue an informatics degree and meet the school's requirements for admission.

Students who have not yet determined their major area of study or who plan to eventually enroll in a professional school may seek admission through the University College. Students who are contemplating degrees in professional areas can benefit from the advice and counsel of informatics faculty at the outset of their academic careers. The School of Informatics office works individually with undecided students and draws on the expert counsel of IUPUI's Career and Employment Office. The School of Informatics maintains close contact with the University College.

Admission to the New Media Program, IUPUI

All students entering the School of Informatics' New Media Program must be admitted officially to the university by the Enrollment Center either at IUPUI or enrolled at another Indiana University campus as a degree-seeking student. After students have been admitted to IUPUI, the specific school in which they intend to pursue a degree must also admit them. The New Media Program welcomes nontraditional students and students entering directly from high school if they wish to pursue a new media degree and meet the school's requirements for admission.

Freshman: For students entering directly from high school, admission depends on the student's subject matter preparation, high school rank, and SAT or ACT scores. Freshmen are expected to rank in the upper half of their high school graduating classes.

High school students should file applications early in their senior year. Students who have been out of high school for two or more years need not provide SAT or ACT scores.

Citizens of other countries and recent immigrants should ask the Enrollment Center for the International Application for Admission.

With all applications for admission, a $35 nonrefundable fee is required. Checks should be payable to IUPUI.

Admission to IUPUI is usually open throughout the year; however, students who are not admitted and have not taken the placement test in time to receive counseling may not be able to register until a later semester. Therefore, applicants are encouraged to complete their applications and testing as

soon as possible. Counseling is available.
Direct all questions about admissions to:

Enrollment Center
IUPUI
Cavanaugh Hall
425 University Boulevard
Indianapolis, IN 46202-5143

Adult Students: Adult special students who are 21 or older may enroll in a maximum of 15 credit hours before they must apply for admission as degree candidates. Adult special students are subject to the same regulations as degree-seeking students. All credits taken as adult special credits can apply toward a bachelor's or associate degree in accordance with various school requirements.

Visiting Students: Students seeking degrees at colleges or universities outside Indiana University may enroll at IUPUI. Students must present to the Enrollment Center a letter of good standing or a transcript verifying at least a 2.0 grade point average from the institution at which they are seeking a degree. Students are generally not allowed to register under this status for consecutive semesters.

Students with Disabilities: Students with a learning, hearing, speech, physical, or mental disability that may affect their ability to fulfill a requirement of the school should contact Adaptive Educational Services prior to registering. Requirements normally will not be waived for students with disabilities, but accommodations may be made within specific courses. The office is located in Cavanaugh Hall 001 E and can be contacted by calling (317) 274-3241 or TDD number (317) 278-2051.

Undecided Students

Students who have not yet determined their major area of study or who plan eventually to enroll in a professional school may wish to seek admission initially to the New Media Program as an undecided student. This alternative to the University College is especially recommended for students whose aspirations depend on a strong new media background, on strong analytical skills, or an in-depth knowledge of computer software.

Students who are contemplating advanced degrees in professional areas can benefit from the advice and counsel of new media faculty at the outset of their academic careers. The New Media Program Office works individually with undecided students and draws on the expert counsel of IUPUI's Career Center. Moreover, undecided students can take advantage of peer counseling; well-qualified, successful undergraduates in new media are available to share their perspectives on a more informal and immediate basis. The New Media Program maintains close contact with University College, and undecided students

can take advantage of the services and expertise of both units regardless of their formal admission to one unit or the other.

Direct Admission to New Media

The New Media Program encourages the direct admission of qualified IUPUI freshmen and transfer students into the program. Students who know which area they wish to pursue may be admitted to the program, while undecided applicants are admitted to the program as undecided majors.

Undecided students are advised through the New Media Program Office or University College, which works with students individually to select courses and, eventually, majors.

To be eligible for direct admission, applicants must meet the general university and campus requirements. Additionally, freshmen must have a combined SAT I (or equivalent) test score of 800. Applicants who have been out of high school two or more years are not required to submit test scores, although the standardized tests are highly recommended. Evaluation of students who request admission without presenting test scores will be made on an individual basis.

Applicants who do not qualify for direct admission may be considered for probationary admission to the University College. Students who qualify for probationary admission according to campus guidelines may be admitted directly to the New Media Program on a probationary status according to the procedures described in the following section.

Probationary Admission to New Media

Individuals who do not qualify for a direct admission or whose college grade point average is lower than 2.0 (C) may petition the New Media Program for probationary admission. Special consideration is given to adult learners and students returning after five or more years. Petitions are available from the New Media Program Office, SI 117, (317) 278-7666.

Deadline to enroll for the
  fall semester: July 15
Deadline to enroll for
  spring semester: November 15
Deadline to enroll for
  summer session: April 15

At the discretion of the dean, the New Media Program may admit on a probationary basis those students who do not meet the minimum requirements for direct admission. To be considered for probationary admission, students must be in the upper two-thirds of their high school graduating class and have combined SAT I scores of at least 650. Such students are counseled through the New

Media Program Office and remain on probation until they have successfully raised their cumulative grade point average to 2.0 (C) and satisfied any other limitations set. Students admitted on probationary status become eligible for dismissal if they fail to

achieve a minimum GPA of 2.3 during each semester until they have reached a minimum cumulative GPA of 2.0 (C). Students who do not achieve a cumulative grade point average of 2.0 (C) after two semesters, or 24 credit hours, will be dismissed.

Application Materials and Deadlines

Application materials and additional information are available from:

Bloomington:	**Indianapolis:**
Office of Admissions	Office of Admissions
Indiana University	IUPUI
300 N. Jordan Avenue	Cavanaugh Hall 129
Bloomington, IN 47405-1106	Indianapolis, IN 46202-5143
(812) 855-0661	(317) 274-4591
E-mail: iuadmit@indiana.edu	E-mail: apply@iupui.edu
Web: www.indiana.edu/~iuadmit	Web: www.iupui.edu/admissions.htm

International students should request the International Application for Admission from:

International Admissions	Office of International Affairs
Indiana University	IUPUI
300 N. Jordan Avenue	620 N. Union Drive, 207
Bloomington, IN 47405-1106	Indianapolis, IN 46202-5167
(812) 855-4306	(317) 274-7294
E-mail: intladm@indiana.edu	E-mail: oia@iupui.edu
Web: www.indiana.edu/~iuadmit	Web: www.iupui.edu/~oia/admissions/

Students also may contact the School of Informatics for additional information:

School of Informatics	School of Informatics, New Media Program
Indiana University	IUPUI
Sycamore Hall 339	Mary Cable Building, (SI) Room 117
Bloomington, IN 47405	Indianapolis, IN 46202-5167
(812) 856-5754	(317) 278-7666
E-mail: informat@indiana.edu	E-mail: info@informatics.iupui.edu
Web: informatics.indiana.edu	Web: informatics.iupui.edu

Priority Dates for Application for Admission to Indiana University Bloomington

	International Students	U.S. Citizens and Permanent Residents
August (Fall)	February 1	February 1
January (Spring)	September 15	November 1
May (Summer I)	February 1	April 1
June (Summer II)	March 1	April 15

Priority Dates for Application for Admission to Indiana University–Purdue University Indianapolis

	International Students	U.S. Citizens and Permanent Residents
August (Fall)	March 15	June 1
January (Spring)	October 15	October 1
May (Summer I)	March 15	March 15
June (Summer II)	March 15	May 1

Program Planning and Counseling

The School of Informatics and New Media Program provides counseling services to assist students in planning their study. Students who have chosen a major are assigned an advisor and should make an appointment with that advisor prior to each registration period to discuss long-term goals as well as specific course work for the upcoming semester. Consulting an advisor is a semester-by-semester obligation of students to ensure ongoing progress toward a degree.

Students, however, are responsible for their progress. They should be thoroughly familiar with the general requirements for an informatics degree or a new media degree. Students are urged to complete most of their general education requirements during the freshman and sophomore years.

In planning a program, students should refer to both the *Schedule of Classes* and this bulletin. Special attention should be paid to course descriptions and prerequisites. This bulletin identifies prerequisites with a "P"; corequisites with a "C"; and recommended courses with an "R." Students should not enroll in courses for which they do not have the prerequisites. Instructors may require a student to drop a class if the student has not fulfilled the prerequisites.

Transfer Students

Transfers from Other Undergraduate Schools on the IUB Campus

Students transferring to the School of Informatics at IUB from other undergraduate schools of the university—such as the College of Arts and Sciences or the Schools of Business, Education, Public and Environmental Affairs, or Music—must have completed at least 26 credit hours of course work that can count towards a degree in Informatics, with a minimum cumulative grade point average of 2.0 (C). Students also must complete INFO I101, Introduction to Informatics, the English composition requirement, the mathematics requirement, and receive a grade of C or higher in all three courses before entering the School of Informatics. Requests for transfer must be completed by July 1 for the fall semester, December 1 for the spring semester, or April 15 for the summer sessions.

Transfers from Other Undergraduate Schools on the IUPUI Campus

Students with a minimum grade point average of 2.0 (C) who wish to transfer from another IUPUI school to the School of Informatics may do so by filing a Change of Record form. For details, check with the Informatics office, Mary Cable Building 117, (317) 278-7666.

Transfers within the School of Informatics on the IUB and IUPUI Campuses

Transfer students admitted to the School of Informatics on the IUB campus transferring to the School of Informatics on the IUPUI campus, or visa versa, should file an Inter-Campus Transfer Form. Inter-Campus Transfer Forms will be accepted throughout the year.

Transfers from Other Indiana University Campuses

Please consult "Transfer to Other Indiana University Campuses" at the back of this bulletin for information on transfers between Indiana University campuses.

Transfers from Other Colleges and Universities to IUB

Students who have completed at least 26 credit hours that can count towards a degree in the School of Informatics—including the English composition and the fundamental math skills requirements—may apply for admission to the School of Informatics at IUB. Upon acceptance, students must enroll in INFO I101, Introduction to Informatics, during their first semester and complete the course with a minimum grade of C.

The Office of Admissions at IUB will determine acceptance of credit from other institutions. The dean of the School of Informatics will determine the applicability of credit toward degree requirements. Please consult "Undergraduate Admissions Policy" at the back of this bulletin for more information about transfers from other colleges and universities.

Transfers from other College and Universities to IUPUI

Students with transfer credit from other colleges or universities may be considered for admission to the School of Informatics or the New Media Program. Transcripts of credits and grades earned in all subjects at previous institutions should be presented to the Enrollment Center where credits will be evaluated.

The Enrollment Center at IUPUI will determine acceptance of credit from other institutions. The dean of the School of Informatics, or the New Media Program Office, will determine the applicability of credits toward degree requirements. Please consult "Undergraduate Admissions Policy" at the back of this bulletin for more information about transfers from other colleges and universities.

Transfer Credit Rules

Credits transferred to the IUB or IUPUI campuses are generally evaluated according to the following rules:
1. Courses taken at other institutions in which the student earned a grade below C do not transfer.
2. Courses taken at other institutions on a quarter system rather than a semester system will be evaluated as carrying fewer credit hours (e.g., a 3 credit hour course taken on a quarter system will transfer as 2.5 credits).
3. Courses taken at other institutions for which there is an equivalent IU course (in terms of course description, level, and prerequisites) generally will be evaluated as credit in the equivalent IU courses.
4. Courses taken at other institutions for which there is no equivalent IU course (in terms of course description, level, and prerequisites) generally will be evaluated as "undistributed" credit (marked UNDI on the IU transcript). Undistributed (UNDI) credits generally count toward the student's degree requirements, but the School of Informatics determines how the credits apply (either toward a requirement or as an elective).
5. Transfer students who have questions about how their previous course work will apply to their degree or who encounter difficulties in the process of transferring credit should contact the School of Informatics or the New Media Program Office.

Academic Regulations

Absences

From Final Examinations   Students are required to adhere to the policies regarding final examinations as published in the *Schedule of Classes.*

From Scheduled Classes   Illness is usually the only acceptable excuse for absence from class. Other absences must be explained to the satisfaction of the instructor, who will decide whether omitted work may be made up.

Credit for Correspondence Courses

With prior approval, the School of Informatics will accept a maximum of two courses (6 credit hours total) by correspondence study to count toward the degree requirements. Only General Elective courses may be taken by correspondence. Distance learning courses and courses conducted on-line are not considered correspondence courses, and they do not have a credit hour limit associated with them.

Degree Application

Candidates for graduation must file an application with the school by March 1 for December graduation and October 1 for May, June, or August graduation. Credits for all course work, except that of the current semester, must be recorded on the candidate's Indiana University transcript at least one month prior to the date of graduation.

Statute of Limitations

Candidates for the bachelor's degree in informatics have the right to complete the degree requirements specified by the bulletin in effect at the time they entered Indiana University, provided that the required courses are available and that no more than eight calendar years have elapsed since the date of entry.

Grading Policies

The School of Informatics follows the official grading system of Indiana University, which is as follows:

A+	= 4.00	C+	= 2.30
A	= 4.00	C	= 2.00
A–	= 3.70	C–	= 1.70
B+	= 3.30	D+	= 1.30
B	= 3.00	D	= 1.00
B–	= 2.70	D–	= 0.70
		F	= 0.00

The following grades carry no grade points: I (Incomplete), NC (No Credit), NR (No Report Filed by Instructor), P (Passing), R (Deferred), S (Satisfactory), W (Withdrawn).

Grade Point Average

The cumulative grade point average is computed by dividing the total number of grade points earned by the total number of credit hours completed in which grades of A through F are assigned. Credit earned at another institution may be applied toward degree requirements, but the grades earned at other institutions will not be calculated in the Indiana University cumulative grade point average.

Change of Grade

A student desiring a change of grade should discuss the situation with the instructor. A change of grade must be justified. If the instructor agrees, the faculty member will file a Grade Change Authorization Form. If the instructor and student do not agree on a changed grade or if the instructor cannot be located, the student should discuss the matter with the chairperson or director of the department offering the course. Appeals unresolved at this level may be referred to the academic deans. Appeals of grades or requests

for other actions normally will not be considered after one calendar year from the end of the semester in which the course in question was taken.

Incomplete Courses

A temporary grade of Incomplete (I) on the transcript indicates that the course work is mostly completed, generally 75 to 80 percent, and of passing quality.

It is the student's responsibility to contact the instructor to have a grade of Incomplete assigned. The instructor specifies the work to be done to remove the grade of Incomplete and the period of time allowed for completion. If the student fails to remove the Incomplete within one calendar year, the Office of the Registrar will change the grade to an F. The dean (or instructor) authorizes adjustments of this period in exceptional circumstances. A student who has received a grade of Incomplete should not register for the course a second time but should arrange with the instructor to have the grade changed to a letter grade upon completion of requirements, provided that it is done within the year.

Pass/Fail Option

Students in the School of Informatics may elect to take a maximum of 12 credit (4 courses) hours total under the Pass/Fail option. The procedure for declaring this option may be found in the *Schedule of Classes.* Special regulations affecting the Pass/Fail option for School of Informatics students are as follows:

1. Only one course per semester or one course per summer session may be taken under the Pass/Fail option.
2. School of Informatics students may not take any informatics course Pass/Fail. In addition, the Pass/Fail option may not be used for any course that satisfies an admission or general-education electives requirements or the student's cognate area. Only university elective courses may be taken on a Pass/Fail basis.
3. A grade of P is not counted in the grade point average; a grade of F is included. Grades of P cannot be changed to any other letter grade.
4. Pass/Fail forms are available in the school of informatics office and the new media program office.

R Grade

The R grade (Deferred) on the final report indicates that the nature of the course is such that the work of the student can be evaluated only after two or more terms. Courses in which an R grade is assigned will be announced as deferred grade courses in the *Schedule of Classes.*

FX Option

FX denotes an undergraduate level course originally failed and subsequently retaken.

The School of Informatics will calculate FX grades as grades of F for internal purposes and degree requirements. This calculation will apply to all categories of academic standing: good standing, probation and dismissal, class rank, and all grade point average requirements in the degree, including cumulative, semester, and major concentrations.

A student may use the FX option for purposes of the university transcript. An undergraduate student who has repeated a course previously failed may request to have only the second grade in that course counted in the student's grade point average as entered on the student's transcript. A student may exercise this FX option for no more than three courses, totaling no more than 10 credit hours. A student may use the FX option on the transcript only once for a given course. Requests for approval of FX courses should be made in consultation with the student's advisor or the New Media Program recorder.

Withdrawals

A grade of W (Withdrawn) is given automatically to the student who withdraws from courses during the automatic withdraw period as specified in the *Schedule of Classes.* After the automatic withdrawal period a student may withdraw only with the permission of the dean. This approval is given only for urgent reasons related to extended illness or equivalent distress. The desire to avoid a low grade is not an acceptable reason for withdrawal from a course.

A grade of W does not affect the overall grade point average. A grade of F will be recorded on the official transcript if a student stops attending but does not officially withdraw from class. Students who alter their schedules, whether at their own initiative or by departmental directive, must follow withdrawal procedures. Students who do not assume this responsibility are jeopardizing their records because they will incur a failing grade in a course not properly dropped and will not receive credit for work done in a course not properly added.

IUB

Students who wish to cancel their Bloomington Campus registrations for a future semester must notify the Office of the Registrar in writing prior to the first day of classes.

Students who are forced to discontinue all studies during the semester (even if enrolled in only one course) and withdraw from the University must contact the Student Advocates

Office in Franklin Hall 206 in order to complete the withdrawal process.

At IUB, if a student withdraws after the first week of classes, the courses in which the student was enrolled will be retained on the student's record with a grade of W or F (as appropriate) and a notation of the date of withdrawal. To qualify for a grade of W after the deadline, a student must be passing the course(s) on the date of withdrawal. If the student is failing, the grade on the date of withdrawal will be F.

IUPUI

To withdraw from any or all courses, students must submit to the registrar's office a Schedule Adjustment form that has been signed by the advisor. If forms are turned in no later than the beginning of classes, the course will be deleted from student records, except for complete withdrawals, which result in the grade of W (Withdrawal) on student records. If withdrawals are turned in by the end of the first half of the semester or summer session, the grade of W is automatically given and recorded on official transcript. Thereafter, but prior to the end of the third quarter of classes, both the advisor's and the instructor's signatures are required for withdrawal, and the instructor designates the grade of W or F.

Upon notification from the IUPUI registrar's office that a student has accumulated eight (8) or more W's, the School of Informatics will send a letter of concern to the student, requesting an explanation. This notification will likewise remind students that their record of withdrawals from courses may jeopardize financial aid. Students with 10 W's may be regarded as not making the "reasonable academic progress" required to maintain eligibility for financial aid, and lack of such progress constitutes grounds for denying further financial aid.

Academic Standing

A student is in good academic standing for an Indiana University bachelor's degree when his or her semester grade point average is a minimum of 2.0 (C) for the last semester's course work and when his or her cumulative grade point averages is at least 2.0 (C). Students must be in good academic standing to graduate.

Class Standing

Class standing is based on the number of credit hours completed:

Freshman, fewer than 26 credits

Sophomore, 26 to 55 credits

Junior, 56 to 85 credits

Senior, 86 or more credits

Semester Load

A typical full-time academic load is 12 to 17 credit hours per semester, with the average load being approximately 15 credit hours. Students who expect to carry more than 17 credit hours a semester should have a cumulative grade point average of at least 3.0 (B), and have the approval from an academic advisor or dean.

Academic Probation

Students will be placed on academic probation if their cumulative or semester grade point average (semester grade index) is below 2.0. After one semester on probation, students who fail to return to good academic standing will be placed on critical probation. At the discretion of the dean, these students can be dismissed. If a student is given the opportunity to enroll under critical probation, the School of Informatics will establish strict conditions that must be met before that student will be allowed to register for future classes.

Dismissal

Students can be dismissed if they fail to return to good academic standing after one semester on critical probation. Students may also be dismissed if, in the opinion of the dean, they are not making satisfactory progress toward their degree.

Students eligible for dismissal will be notified in writing that they have been dismissed and will be withdrawn from classes for which they have registered.

Readmission

Dismissed students must petition the dean of the School of Informatics for readmission. A Petition for Readmission form must be filed by July 15 for fall, November 15 for spring, and April 15 for summer readmission. A student who has been dismissed for the second time is eligible to return to school only after being out of school for one regular semester and having petitioned successfully. A third dismissal is final. Dismissed students whose petitions are denied will not be allowed to register.

Academic Misconduct

Cheating

Cheating is dishonesty of any kind with respect to course assignments, alteration of records, or examinations. It is the student's responsibility not only to abstain from cheating, but also to avoid the appearance of cheating and to guard against making it possible for others to cheat. Any student who helps another student cheat is as guilty of cheating as the student assisted. The student

also should do everything possible to induce respect for the examining process and for honesty in the performance of assigned tasks in or out of class.

Plagiarism

Plagiarism is assuming credit for someone else's work, words, or ideas — whether or not the ideas are expressed in the borrower's own words. Honesty requires that any ideas or materials taken from another source for either written or oral use must be fully acknowledged. Plagiarism includes language or ideas taken from isolated formulas, sentences, or paragraphs; entire articles copied from books, periodicals, speeches; the writings or created works of other students; and materials assembled or collected by others in projects or collections without acknowledgement.

A faculty member who has evidence that a student is guilty of cheating or plagiarism will initiate the process of determining the student's guilt or innocence. No penalty will be imposed until the student has been informed of the charge and of the evidence on which it is based and has been given an opportunity to present a defense. If the faculty member finds the student guilty, the faculty member assesses a penalty within the course and promptly reports the case in writing to the dean of the school or comparable head of the academic unit. The report should include the names of any other students who may be involved in the incident and recommendations for further action. The dean, in consultation with the faculty member if the latter so desires, will initiate any further disciplinary proceedings and inform the faculty member of any action taken. In every case, a record of the offenses remains on file.

For further regulations, please refer to the *IU Code of Student Rights, Responsibilities, and Conduct.*

Student Grievance Procedures

All academic personnel (faculty, part-time instructors, and advisors) are expected to conform to the Code of Academic Ethics published in the *Indiana University Academic Handbook.* Students who feel that they have been treated unfairly by a faculty member may lodge a complaint by following these steps: (1) Discuss the matter with the faculty member or instructor. (2) If step 1 fails to resolve the situation, discuss the matter with the chairperson of the department or the coordinator of the program in which the faculty member is employed. The departmental chairperson will discuss it with the faculty member and seek some resolution. (3) If step 2 fails, the student may discuss the matter or file a written, signed complaint with

the dean. Anonymous complaints will not be entertained. A copy of any written complaint will be forwarded to the faculty member, who may respond in writing. (4) When warranted, the dean may refer a written complaint and the faculty member's response to the Faculty Affairs Committee for further investigation and review. (5) The Faculty Affairs Committee will evaluate the complaint on the basis of university policy and may recommend to the dean that the instructor be sanctioned. If the committee finds the complaint to be unfounded, a letter to that effect may be placed in the student's file.

Informatics Degree Programs, IUB and IUPUI

Academic counseling for each student in the School of Informatics is provided by a faculty member or an academic advisor prior to each semester's enrollment. Although academic counseling is intended to provide effective guidance, students are responsible for planning their own programs and for meeting the following degree requirements for graduation. Students are advised to read bulletin descriptions of all courses selected, paying careful attention to conditions concerning awarding of credit.

The Indiana University Course Analysis and Record Evaluation (IUCARE), a computerized degree-audit system, is available to all students. Students may use IUCARE to monitor their completed and remaining requirements for a Bachelor of Science degree in Informatics. Every fall and spring semester, printed copies of the advising report are distributed to students along with their registration tickets.

Bachelor of Science in Informatics, IUB and IUPUI

General Requirements

Students must successfully complete a minimum of 122 credit hours for the Bachelor of Science degree. The campus at which a student is admitted will award the degree. Students may transfer no more than 60 credit hours toward a Bachelor of Science degree. Students must complete the specific degree requirements of the School of Informatics as listed below.

1. Students must complete a minimum of 30 credit hours in courses at the 300–400 (junior-senior) level.
2. Students must have a minimum cumulative grade point average of 2.0 (C). Any course taken to satisfy the requirements of the major must be completed with a minimum grade of C–.

3. Students are expected to complete the requirements for their undergraduate degree within eight years of admission to the School of Informatics. Students are allowed to continue beyond this time period only at the discretion of the dean. If a student has not taken classes for three years or more, that student must satisfy program requirements of the School of Informatics in effect at the time of reactivation. Requests for deviation from requirements listed in the bulletin must be approved in writing by the dean, whose decision is final.
4. Courses that fulfill the requirements for a cognate area also may meet the general education distribution requirements.
5. Cognate area courses cannot count as informatics core courses or informatics elective courses.
6. If cognate area courses are equivalent to informatics core courses, students should substitute additional informatics elective courses in place of informatics core courses to meet the 30 credit hour requirement.
7. Courses that fulfill the requirements for a bachelor's degree in informatics also may apply to a minor outside of the School of Informatics.
8. Students must file a degree application with the School of Informatics office by March 1 for December graduation and October 1 for May, June, or August graduation. Failure to file by the deadline may delay the official date of graduation.

Course Requirements

The course work required for the B.S. in Informatics consists of five parts:
- Informatics Core Courses
- Informatics Electives
- Cognate Area Courses
- General-Education Requirements
- General Electives

Required Informatics Core courses (30 cr.)
INFO I101 Introduction to Informatics (3 cr.)
INFO I200 Information Representation (3 cr.)
INFO I201 Mathematical Foundations of Informatics (4 cr.)
INFO I202 Social Informatics (3 cr.)
INFO I210 Information Infrastructure I (4 cr.)
INFO I211 Information Infrastructure II (4 cr.)
INFO I303 Organizational Informatics (3 cr.)

Capstone Project:
INFO I450/I451 Design and Development of an Information System (3-3 cr.) (senior standing), two semesters **or**
INFO I460/I461 Thesis (3-3 cr.) (senior standing; capstone experience) two semesters.

With prior approval from the dean, a student may substitute INFO I450/I451 and INFO I460/I461 with an equivalent capstone experience in another department, or complete 6 credit hours of INFO I420, Internship in Informatics Professional Practice, to fulfill the capstone experience. Internships require students to be at a junior or senior standing. A project or report must be submitted after the internship is completed.

Recommended Courses   The following courses are recommended for students who lack a strong computing background. These courses are considered general elective courses.

INFO I110 Basic Tools of Informatics— Programming Concepts (1.5 cr.) IUB only
INFO I111 Basic Tools of Informatics— Introduction to Databases (1.5 cr.) IUB only
INFO I112 Basic Tools of Informatics— Programming and Database Concepts (3 cr.) IUPUI only

IUB students who wish to pursue a concentration in computer science may substitute CSCI C211 for INFO I210, CSCI C212 for INFO I211, and CSCI C241 for INFO I201. For students in this concentration, any informatics elective course can be taken in place of INFO I210, INFO I211, and INFO I201 to meet the 30 credit hour informatics core requirement.

Informatics Electives (9 cr.)
BUS S302 Management Information Systems (3 cr.)
BUS S305 Business Telecommunications (3 cr.)
BUS S307 Data Management (3 cr.)
BUS S310 Systems Analysis and Design (3 cr.)
BUS S405 Alternative Development Methods and Systems (3 cr.)
BUS S410 Systems Implementation (3 cr.)
COGS Q351/CSCI B351 Introduction to Artificial Intelligence and Computer Simulation (3 cr.)
INFO I300 Human Computer Interaction (3 cr.)
INFO I310 Multimedia Arts and Technology (3 cr.)
INFO I320 Distributed Systems and Collaborative Computing (3 cr.)
INFO I400 Topics in Informatics (3 cr.)
JOUR J300 Journalism/Communications Law (3 cr.)
JOUR J414 Globalization of Information (also International Newsgathering Systems) (3 cr.)
SOC S319 Science, Technology, and Society (3 cr.)
TEL T321 Telecommunications Policymaking (3 cr.)
TEL T421 Economics of Communications (3 cr.)
TEL T427 International Telecommunications (3 cr.)

The selection of informatics electives will vary between the IUB and IUPUI campuses. Any course at the 300 level or above in computer science (IUB), computer technology (IUPUI), computer and information science (IUPUI), or new media (IUPUI), can count as an elective.

Note: All of the above courses are subject to the successful completion of prerequisites or approval of the instructor. This list is expanding. Students should consult the School of Informatics office or refer to our Web site at informatics.indiana.edu or informatics.iupui.edu for the most current list of informatics electives. Students also may count other courses with informatics content as informatics electives upon approval of the dean.

Cognate Area Courses (15–18 cr.)

Departments offering informatics cognate courses are listed in the appendix. Students should, in consultation with their academic advisors, chose cognate areas before their sophomore years. Students should contact the School of Informatics office or refer to our Web site at informatics.indiana.edu or informatics.iupui.edu for the most current list of cognate areas.

General-Education Requirements (38–41 cr.)

English Composition (3 cr.) This writing requirement may be fulfilled in any one of the following ways:

IUB:

1. Exemption without credit. Students scoring 670 or above on the SAT Verbal Examination, or 32 or above on the ACT English Composition section, or 4 to 5 on the Advanced Placement English Composition section, are exempt from English composition.
2. Exemption with credit. A student will be granted 2 credit hours of English W143 if the student has
   a. a score of 670 or above on the SAT Verbal Examination, 32 or above on the ACT English Composition section, or 4 to 5 on the Advanced Placement English Composition section, **plus**
   b. a score of 660 or better on the SAT II English Writing Test, AND if the student applies to the Department of English.
3. Completion of any of the following options with a minimum grade of C (2.0):
   a. ENG W110 Writing Across the Curriculum (3 cr.)
   b. ENG W131 Elementary Composition (3 cr.)
   c. ENG W170 Projects in Reading and Writing (3 cr.)

d. ENG L141 and L142 Introduction to Writing and the Study of Literature I-II (4-4 cr.)
e. AFRO A141-A142 Introduction to Writing and the Study of Black Literature I-II (4-4 cr.)
f. Two semesters of ENG W143 Interdisciplinary Study of Expository Writing (1 cr.), combined with two introductory courses (3 cr.) from the following: CMLT C145 Major Characters in Literature, C146 Major Themes in Literature.
g. A combination of any two courses from d, e, and f above.
Note: Courses taken under these options, except for ENG W110, W131, W143, and W170, may, if they are so designated, be applied toward distribution requirements.
IUPUI: ENG W131 Elementary Composition I (3 cr.) with a grade of C (2.0) or better.

Writing (3 cr.)

ENG W231 Professional Writing Skills, an approved substitute (3 cr.), or completion of one intensive writing course at the 200 level or above after completing the English composition requirement. Intensive writing courses at IUB are defined by the College of Arts and Sciences (COAS); at IUPUI they are defined by the "writing throughout the curriculum" requirements.

Students must check the listings for courses in the *Schedule of Classes* each semester to make certain the course section they have chosen fulfills the requirement.

Oral Communication (3 cr.)

IUB: CMCL S121 Public Speaking, or approved substitute (3 cr.).
IUPUI: COMM R110 Fundamentals of Speech Communication (3 cr.).

Quantitative and Analytical Skills (6 cr.)

IUB:

1. Select one of the following: MATH D116-117 Introduction to Finite Mathematics I-II; MATH A118 Finite Mathematics for the Social and Biological Sciences, M118 Finite Mathematics, or S118 Honors Finite Mathematics; MATH M119 Brief Survey of Calculus I; MATH M211 Calculus I; MATH M212 Calculus II or S212 Honors Calculus II; MATH M213 Accelerated Calculus. Credit not given for both M119 and M211, or M212 and M213.
2. Required: MATH M368, Statistics for Informatics, or another approved course in research methods or statistics (3 cr.).

Credit will be given for only one of the following MATH M368, M365 Introduction to Probability and Statistics; MATH/PSY K300 Statistical Techniques, K310 Statistical Techniques; CJUS K300 Techniques for Data Analysis; SPEA K300; ECON E370 Statistical Analysis for Business and Economics, S370 Statistical Analysis for Business and Economics: Honors; or SOC S371 Statistics for Sociology.

IUPUI:

1. Select one of the following: MATH M118 Finite Mathematics, M119 Brief Survey of Calculus I, M163 Integrated Calculus and Analytic Geometry I, or M164 Integrated Calculus.
2. Required: STAT 311 Introductory Probability (3 cr.) or MATH M368 Statistics for Informatics (3 cr.).

Natural Sciences (8 cr.)

IUB: Three natural science courses, identified by the College of Arts and Sciences (COAS) as NMNS courses, of more than 1 credit each. One of the courses must have an associated laboratory.

IUPUI: A minimum of 8 credit hours selected from the following:

ANTH A103 Human Origins and Prehistory (3 cr.).
AST A100 The Solar System (3 cr.), A105 Stellar Astronomy (3 cr.).
BIOL K101 Concepts of Biology I–Plants (5 cr.), K103 Concepts of Biology II–Animals (5 cr.), N100 Contemporary Biology (3 cr.), N107 Introduction to Zoology (4 cr.), N200 The Biology of Women (3 cr.), N212 Human Biology (2 cr.), N213 Human Biology Laboratory (1 cr.), N214 Human Biology (2 cr.), N215 Human Biology Laboratory (1 cr.), N217 Human Physiology (5 cr.), N251 Introduction to Microbiology (3 cr.), N322 Introductory Principles of Genetics (3 cr.).
CHEM C100 The World of Chemistry (3 cr.), C101 Elementary Chemistry I (5 cr.), C102 Elementary Chemistry II (5 cr.), C105 Principles of Chemistry I (3 cr.), C106 Principles of Chemistry I (3 cr.).
GEOG G107 Physical Systems of the Environment (3 cr.), G108 Physical Systems of the Environment: Laboratory (2 cr.), G185 Global Environmental Change (3 cr.), G303 Weather and Climate (3 cr.), G307 Biogeography: the Distribution of Life (3 cr.).

GEOL G107 Environmental Geology (3 cr.), G117 Environmental Geology Laboratory (1 cr.), G109 Fundamentals of Earth History (3 cr.), G119 Fundamentals of Earth History Laboratory (1 cr.), G110 Physical Geology (3 cr.), G120 Physical Geology Laboratory (1 cr.), G206 Advanced Physical Geology Laboratory (2 cr.), G115 Introduction to Oceanography (3 cr.), G132 Environmental Problems (3 cr.), G180 Dinosaurs (3 cr.).
PHYS 100 Physics in the Modern World (5 cr.), P152 Mechanics (4 cr.), P200 Our Physical Environment (3 cr.), P218 General Physics (4 cr.), P219 General Physics (4 cr.), P251 Heat, Electricity, and Optics (5 cr.), P201 General Physics I (5 cr.), P202 General Physics II (5 cr.).
PSY B105 Psychology as a Biological Science (3 cr.).

At least one of the above courses must be a laboratory course.

Arts, Humanities, and Social Sciences (15 cr.)

Informatics students must have basic training in the arts, humanities, and social sciences, which will assist them in their lives and give them a broader perspective from which to approach the applications of information technology. The requirements for each campus are as follows:

IUB:

Five courses in arts and humanities and social and historical studies, as defined by the College of Arts and Sciences (may include Topics courses); at least two courses in each area.
One of these must be a course in ethics:
PHIL P140 Introduction to Ethics (3 cr.)
REL R170 Religion, Ethics, and Public Life (3 cr.)
PHIL P242 Applied Ethics (3 cr.)
PHIL P340 Classics in Ethics (3 cr.)
PHIL P342 Problems of Ethics (3 cr.) or an approved professional ethics course.

IUPUI:

One arts and humanities course (3 cr.) selected from the following:
AFRO A150 Afro-American Studies (3 cr.)
AMST A103 Topics in American Studies (3 cr.)
CLAS C205 Classical Mythology (3 cr.)
CMLT C190 Introduction to Film (3 cr.)
COMM T130 Introduction to Theatre (3 cr.)
ENG L105 Appreciation of Literature (3 cr.)

ENG L115 Literature for Today (3 cr.)
FLAC F200 World Cultures Through
　Literature (3 cr.)
FOLK F101 Folklore (3 cr.)
HER H100 Art Appreciation (3 cr.)
HER H101 History of Art I (3 cr.)
HER H102 History of Art II (3 cr.)
HIST H105 American History I (3 cr.)
HIST H106 American History II (3 cr.)
HIST H108 Perspectives on the World
　to 1800 (3 cr.)
HIST H113 History of Western
　Civilization I (3 cr.)
HIST H217 The Nature of History (3 cr.)
PHIL P110 Introduction to Philosophy
　(3 cr.)
PHIL P120 Ethics (3 cr.)
REL R133 Introduction to Religion (3 cr.)
REL R173 American Religion (3 cr.)
REL R180 Introduction to Christianity
　(3 cr.)
REL R212 Comparative Religions (3 cr.)
MUS M174 Music for the Listener (3 cr.)
WOST W105 Women's Studies (3 cr.)

One social science course (3 cr.) selected
　from the following:
AFRO A150 Afro-American Studies (3 cr.)
ANTH A104 Culture and Society (3 cr.)
COMM C180 Interpersonal
　Communication (3 cr.)
ECON E101 Economics (3 cr.), ECON
　E201, or ECON E202
ENG G104 Language Awareness (3 cr.)
FOLK F101 Introduction to Folklore
　(3 cr.)
GEOG G110 Introduction to Human
　Geography (3 cr.)
GEOG G130 World Geography (3 cr.)
HIST H117 Introduction to Historical
　Analysis (3 cr.)
POLS Y101 Principles of Political
　Science (3 cr.)
POLS Y103 Introduction to American
　Politics (3 cr.)
POLS Y213 Introduction to Public
　Policy (3 cr.) or SPEA V170
　Introduction to Public Affairs (3 cr.)
POLS Y219 International Relations (3 cr.)
PSY B104 Psychology (3 cr.)
PSY B310 Life Span Development (3 cr.)
SOC R100 Sociology (3 cr.)
SOC R121 Social Problems (3 cr.)
WOST W105 Introduction to Women's
　Studies (3 cr.)

One comparative world cultures course
　(3 cr.) selected from the following:
ANTH A104 Culture and Society (3 cr.)
CLAS C205 Classical Mythology (3 cr.)
FLAC F200 World Cultures Through
　Literature (3 cr.)
GEOG G110 Introduction to Human
　Geography (3 cr.)

HIST H108 Perspectives on the World
　to 1800 (3 cr.)
POLS Y217 Introduction to
　Comparative Politics (3 cr.)
REL R133 Introduction to Religion (3 cr.)
REL R212 Comparative Religions (3 cr.)

One junior/senior integrator course (3 cr.)
　(see academic advisor).
HIST H114 History of Western
　Civilization II (3 cr.)

One of these must be a course in ethics:
REL R283 Religion, Ethics and Values
　(3 cr.)
REL R293 Ethics and World Religions
　(3 cr.)
REL R393 Comparative Religious Ethics
　(3 cr.)
PHIL P120 Ethics (3 cr.)
PHIL P325 Social Philosophy (3 cr.)
PHIL P326 Ethical Theory (3 cr.)
PHIL P393 Biomedical Ethics (3 cr.)
PHIL P494 Topics in Biomedical Ethics
　(3 cr.)

General Electives (24-30 cr.)

Courses for the remaining credits will be
decided by the individual student, in
consultation with an advisor, to fulfill
additional career and/or personal interests.
Students may take a maximum of 4 credit
hours of HPER elective physical education
courses numbered Exxx.

Dual Baccalaureate Degree

In certain circumstances students may be
permitted to pursue a B.S. degree in
Informatics and complete an undergraduate
degree in another degree-granting school of
the university. Check with your academic
advisor for more details.

Second Baccalaureate Degree

In certain cases the dean may admit bachelor's
degree holders to candidacy for a second
bachelor's degree. When such admission is
granted, the candidates must earn at least 60
additional credit hours and meet the
requirements of the School of Informatics.
Students seeking second degree candidacy
should review the guidelines available from
the Informatics office. Students with a
bachelor's degree who wish to further their
education should also consider becoming
qualified for admission to a graduate program.

Minor and Certificate in Informatics

The undergraduate minor or certificate allows
a student majoring in another subject to get
appropriate training in informatics and obtain
certification as someone who knows how to
apply informatics tools to that subject area.

Certificate in Informatics

1. Minimum grade of 2.0 (C) in all courses
   taken for the certificate.
2. Students are required to complete 26 credit
   hours from the following list:
   INFO I101 Introduction to Informatics
   　(3 cr.)
   INFO I200 Information Representation
   　(3 cr.)
   INFO I202 Social Informatics (3 cr.)
   INFO I210 Information Infrastructure I
   　(4 cr.) [cross-listed with CSCI A201
   　Introduction to Programming I
   　(IUB), and CSCI N331 Visual Basic
   　Programming (IUPUI)]
   INFO I211 Information Infrastructure II
   　(4 cr.) [cross-listed with CSCI A202
   　Introduction to Programming II
   　(IUB), and CSCI N345 Advanced
   　Programming, Java (IUPUI)]
   INFO I300 Human Computer
   　Interaction (3 cr.)
   INFO I303 Organizational Informatics
   　(3 cr.)

In addition students must take an additional
course (3 credit hours) from the informatics
curriculum. These additional courses can be
chosen from the listed electives for informatics
and can therefore be taken in another
department.

Minor in Informatics

1. Minimum grade of 2.0 (C) in all courses
   taken for the minor.
2. Students are required to take three courses
   from the following list:
   INFO I101 Introduction to Informatics
   　(3 cr.)
   INFO I200 Information Representation
   　(3 cr.)
   INFO I202 Social Informatics (3 cr.)
   INFO I210 Information Infrastructure I
   　(4 cr.) [cross-listed with CSCI A201
   　Introduction to Programming I
   　(IUB), and CSCI N331 Visual Basic
   　Programming (IUPUI)]
   INFO I211 Information Infrastructure II
   　(4 cr.) [cross-listed with CSCI A202
   　Introduction to Programming II
   　(IUB), and CSCI N345 Advanced
   　Programming, Java (IUPUI)]

Students are required to take two courses from
the following list of upper level courses:
INFO I300 Human Computer Interaction
　(3 cr.)
INFO I303 Organizational Informatics (3 cr.)
One course from the list of approved
　informatics elective courses

Minor in Business, IUB

IUB students pursuing a bachelor's degree in
the School of Informatics may obtain a minor
in business by successfully fulfilling the
following requirements:
BUS A200 (or equivalent) Foundations of
　Accounting (3 cr.)
BUS K201 The Computer in Business (3 cr.)
BUS L201 Legal Environment of Business
　(3 cr.)
BUS F300 Introduction to Financial
　Management (3 cr.)
BUS M300 Introduction to Marketing (3 cr.)
BUS P300 Introduction to Operations
　Management (3 cr.)
BUS Z302 Managing and Behavior in
　Organizations (3 cr.)

Students completing a business minor should
fill out an Application for Minor form during
their senior year to have the minor listed on
their transcripts.

Minor in Business, IUPUI

IUPUI students pursuing a bachelor's degree
in the School of Informatics may obtain a
minor in business by successfully fulfilling the
following requirements:
BUS A100 Basic Accounting Skills (1 cr.)
BUS A201 Introduction to Financial
　Accounting (3 cr.)
BUS A202 Introduction to Managerial
　Accounting (3 cr.)
ECON E201 Introduction to
　Microeconomics (3 cr.)
ECON E202 Introduction to
　Macroeconomics (3 cr.)
ECON E270 Introduction to Statistical
　Theory in Economics (3 cr.)
MATH M118 Finite Mathematics (3 cr.)
MATH M119 Brief Survey of Calculus I
　(3 cr.)

In addition, BUS K201 the Computer in
Business, or its equivalent, must be completed
with a minimum grade of C prior to starting
the integrative core. Students are required to
take the integrative core, which is 9 credit
hours taken together as a single educational
unit (BUS F301 Financial Management, M301
Introduction to Marketing Management and
P301 Operations Management).

In addition to the 12 required courses listed
above, BUS X204 Business Communications,
BUS L302 Commercial Law I, and BUS Z302
Managing and Behavior in Organizations are
recommended.

Minor in Computer Science, IUB

Students pursuing a bachelor's degree in the School of Informatics may obtain a minor in computer science by successfully completing a minimum of 15 credit hours that include the following requirements:

CSCI C211 Introduction to Computer Science (4 cr.)

CSCI C212 Introduction to Software Systems (4 cr.)

CSCI C241 Discrete Structures for Computer Science (3 cr.)

CSCI C335 Computer Structures (4 cr.), **or** CSCI C343 Data Structures (4 cr.)

Note: CSCI C211, CSCI C212, and CSCI C241 replace INFO I210, INFO I211, and INFO I201 respectively.

Minor in Information Technology, IUB

Students pursuing a bachelor's degree in the School of Informatics may obtain a minor in information technology by successfully completing a minimum of 15 credit hours that include the following requirements:

CSCI A201/A202 or CSCI C211/C212 Introduction to Programming I and II (4 cr./4cr.)

CSCI A247 Network Technologies and Administration (4 cr.)

CSCI A346 User-Interface Programming (3 cr.) **or**

CSCI A348 Mastering the World Wide Web (4 cr.)

CSCI A112 Basic Tools in Informatics–Programming and Database Concepts is recommended for students without a programming background.

Note: CSCI A201 and CSCI A202 are equivalent to INFO I210 and INFO I211, and CSCI C211 and CSCI C212 substitute for these informatics courses respectively.

Undergraduate Courses in the School of Informatics, IUB and IUPUI

The abbreviation "P" refers to the course prerequisite or prerequisites. The number of hours of credit given a course is indicated in parentheses following the course title.

I101 Introduction to Informatics (3 cr.) P: Computer literacy. Emphasis on topics in human computer interaction and human factors, collaborative technologies, group problem solving, ethics, privacy, and ownership of information and information sources, information representation and the information life cycle, the transformation of data to information, and futuristic thinking.

I110 Basic Tools of Informatics I— Programming Concepts (1.5 cr.) P: CSCI A110, CSCI A111, or equivalent computing experience. Introduction to programming for users of computer systems. Emphasis on problem-solving techniques. An eight-week lecture and laboratory course. Cross listed with CSCI A112. Credit given for only one of the following: INFO I110, CSCI A112, or INFO I112.

I111 Basic Tools of Informatics II— Introduction to Databases (1.5 cr.) P: CSCI A110, CSCI A111, or equivalent computing experience. Introduction to database design concepts. Entering and modifying data, accessing data using visual tools and SQL, building database applications using forms and application development tools. Emphasis on problem-solving techniques. An eight-week lecture and laboratory course. Cross listed with CSCI A114. Credit given for only one of the following: INFO I111, CSCI A114, or INFO I112.

I112 Basic Tools of Informatics— Programming and Database Concepts (3 cr.) Introduction to programming and database design concepts. Emphasis on problem-solving and information-gathering techniques. The lecture will discuss general concepts and syntax. The lab will focus on the use of software, including a programming language, modifying and accessing data using visual tools, and building database applications using forms and development tools. Lecture and laboratory. Offered on the IUPUI campus only. Equivalent to the combination of INFO I110 and INFO I111. Credit given for INFO I112 and either INFO I110 or INFO I111.

I200 Information Representation (3 cr.) P: Knowledge of a programming language as can be obtained from INFO I110, INFO I210, or similar courses. Recommended prerequisite or concurrent: INFO I201. The basic structure of information representation in social and scientific applications. Representational structures and approaches from many disciplines are introduced: philosophical theories of classification and categorization; information access and representation on the World Wide Web; object-oriented design and relational databases; AI knowledge representation and discovery. Cross listed with COGS Q200. Credit given for either INFO I200 or COGS Q200.

I201 Mathematical Foundations of Informatics (4 cr.) Recommended prerequisite or concurrent: INFO I101. An introduction to the suite of mathematical and logical tools used in information sciences, including finite mathematics, automata and computability theory, elementary probability and statistics, and basics of classical information theory. Cross listed with COGS Q250. Credit given for either INFO I201 or COGS Q250.

I202 Social Informatics (3 cr.) P: INFO I101. Introduces the social and behavioral foundations of informatics. Theoretical approaches to how technology is used from psychological and sociotechnical perspectives. Examples of how current and emerging technologies such as games, e-mail, and electronic commerce are affecting daily lives, social relations, work, and leisure time.

I210 Information Infrastructure I (4 cr.) Recommended prerequisite or concurrent: INFO I101. The software architecture of information systems. Basic concepts of systems and applications programming. Cross listed with CSCI A201. Credit given for only one of the following: INFO I210, CSCI N331 (IUPUI) or CSCI A201 (IUB).

I211 Information Infrastructure II (4 cr.) P: INFO I210. The systems architecture of distributed applications. Advanced programming, including an introduction to the programming of graphical systems. Cross listed with CSCI A202. Credit given for only one of the following: INFO I211, CSCI N345 (IUPUI), CSCI A202 (IUB), or CSCI C212 (IUB).

I300 Human Computer Interaction (3 cr.) P: INFO I211. The analysis of human factors and the design of computer application interfaces. A survey of current best practice with an eye toward what future technologies will allow.

I303 Organizational Informatics (3 cr.) P: INFO I101. Examines the various needs, uses, and consequences of information in organizational contexts. Topics include organizational types and characteristics, functional areas and business processes, information-based products and services, the use of and redefining role of information technology, the changing character of work life

and organizational practices, sociotechnical structures, and the rise and transformation of information-based industries. Credit given for either INFO I303 or SPEA V369.

I310 Multimedia Arts and Technology (3 cr.) P: INFO I200. The study of the evolution of media arts and underlying principles of communication. Application development paradigms in current practice.

I320 Distributed Systems and Collaborative Computing (3 cr.) P: INFO I211. An introductory treatment of distributed systems and programming. Topics range from the distributed and object models of computation to advanced concepts, such as remote method invocations, object brokers, object services, open systems, and future trends for distributed information systems.

I400 Topics in Informatics (1–3 cr.) P: At least junior standing or permission of instructor. Variable topic. Emphasis is on new developments and research in informatics. Can be repeated twice for credit when topics vary, subject to approval of the dean.

I420 Internship in Informatics Professional Practice (3–6 cr.) P: Approval of dean and completion of 100 and 200 level requirements in informatics. Students gain professional work experience in an industry or research organization setting, using skills and knowledge acquired in informatics course work.

I450/451 Design and Development of an Information System (3–3 cr.) P: Senior standing and approval of the dean. System design and development present both technical and managerial problems with which students will be familiar from their undergraduate course work. This course puts these lessons into practice as students work in teams to develop an information system. Examples of course projects include design and development of a database for a business or academic application, preparation and presentation of an interactive media performance or exhibit, or design and implementation of a simulated environment (virtual reality).

I460/461 Senior Thesis (3–3 cr.) P: Senior standing and approval of the dean. The senior student prepares and presents a thesis: a substantial, typically multichapter paper based on a well-planned research or scholarly project, as determined by the student and a sponsoring faculty member.

I499 Readings and Research in Informatics (1–3 cr.) P: Consent of instructor and completion of 100 and 200 level requirements in informatics. Independent readings and research related to a topic of special interest to the student. Written report required.

New Media Degree Programs, IUPUI

The New Media Program, located at IUPUI, an Associate of Science in Media Arts and Technology, a Bachelor of Science in Media Arts and Science, and a Certificate in Internet Application Development; all provide an integrated approach to the study of new media. Focused on applied research and application, these degrees are oriented toward professional practice. Together, they encompass the design, development, management, integration, application, assessment, and deployment of new and digital media to communication.

The programs and requirements described apply in the New Media Program at Indianapolis.

Associate of Science in Media Arts and Technology

Course Requirements

The course work required for the A.S. in New Media consists of three parts:
New Media Core Courses
General-Education Requirements
General Electives

Required New Media Core Courses (18 cr.)

NEWM N100 Introduction to Digital Media Principles (3 cr.)
CSCI N241 Introduction to Web Design (3 cr.)
NEWM N101 Topics in Interactive Multimedia (3 cr.)
ENG W131 English Composition I (3 cr.) or JOUR J100 Computer Methods for Journalists (3 cr.)
CPT 115 Computer Information Systems Fundamentals (3 cr.)
CPT 140 Programming Constructs Lab (3 cr.)

General-Education Requirements (6 cr.)

COMM R110 Fundamentals of Speech (3 cr.)
JOUR J200 Reporting, Writing, and Editing I (3 cr.) or ENG W132 English Composition II (3 cr.)

Foreign Language (6 cr.)

Students must complete 6 credit hours in a foreign language. Japanese or Chinese is recommended.

Analytical Skills (6 cr.)

MATH M111 Algebra (4 cr.) or higher level course (excluding MATH 130, MATH 131, MATH 132)
MATH M153 Algebra and Trigonometry I (3 cr.)
PHIL P162 Practical Logic (3 cr.)
PHIL P265 Elementary Symbolic Logic (3 cr.)

Arts and Humanities (6 cr.)

CMLT C190 Introduction to Film (3 cr.)
MUS M174 Music for the Listener (3 cr.)
HER H100 Art Appreciation (3 cr.)
COMM T130 Theatre Appreciation (3 cr.)
PHIL P120 Personal and Social Ethics (3 cr.)

Sciences (6 cr.)

Astronomy
Biology
Chemistry
Geography
Physics
Psychology (PSY B105 Psychology only)
Computer

General Electives (12 cr.) selected from the following schools or departments:

New Media, Art, Journalism, Music, Computer Science, Computer Technology, and/or Library and Information Science.

Bachelor of Science in Media Arts and Science

All students must meet the requirements as established by the faculty of the New Media Program and applied to all IUPUI New Media students. The New Media Program, Office of Student Affairs, Mary Cable Building 117, can answer questions about general education courses and distribution requirements.

General Requirements:

1. All IUPUI students must fulfill the following undergraduate requirements:
   6 credit hours of Communication (written and oral)
   10 credit hours of Foreign Language
   6 credit hours of Analytical Skills
   6 credit hours of Arts and Humanities
   6 credit hours of Social Sciences

2. A minimum of 122 credit hours is required for a New Media degree.

3. A minimum cumulative grade point average of 2.0 (C) is required for graduation.

4. A minimum of 36 credit hours must be at the 300–400 level. Courses taken at other institutions at the freshman and sophomore levels, regardless of title or description, will not be accepted in satisfaction of this requirement.

5. At least 12 credit hours of 300–400 level courses must be taken outside the major program as electives.

6. A maximum of 12 credit hours may be taken using the Pass/Fail option and applied to university electives only.

7. A minimum of 24 credit hours must be taken in the concentration∕specialization area. For requirements in the concentration∕specialization area, refer to the plan of study, available from your advisor.

8. Any course in which a student receives a grade below C (2.0) may not be used to fulfill any requirement (a C– will not count).

9. A minimum of 26 credit hours of the work of the senior year must be completed at IUPUI except in the case of students transferring within the campuses of Indiana University. (See academic advisor for specific residency requirements).

10. Credit to the degree will not be accepted for remedial courses.

11. Once a course has been applied toward one requirement, it cannot be used to satisfy a second requirement, except where explicitly stated otherwise. No course will be counted more than once toward graduation with the exception of variable titled courses, seminars, independent study, internships, and other special courses.

Course Requirements

The course work required for the B.S. in Media Arts and Science consists of six parts:

Required New Media Core Courses
Web-Based Computer Programming
Concentration/Specialization Courses
New Media Electives
General-Education Requirements
University Electives

The New Media Program recommends that students complete English W131 or Honors W140 during the first semester or as soon afterward as placement test scores and course availability allow. Students whose placement test scores indicate a need to take English W001 should enroll in that course their first semester. Students must earn a minimum grade of C in English W001 to advance to English W131. It also is recommended that English W132, W150, or JOUR J200 be taken the semester following successful completion of English W131.

Speech Communication R110 (3 cr.) Students with previously acquired competency in public speaking may be eligible for special credit and exemption from the requirement; contact the chairperson of the Department of Communication Studies, Cavanaugh Hall 309, or call (317) 274-0566.

Foreign Language Requirement Placement Test Students with previous experience in a foreign language should take the Foreign Language Placement Test at the Testing Center to assess their level of language preparation. Students who complete the course into which they were placed with a minimum grade of C are eligible for special credit at a reduced fee for the appropriate lower-division courses(s) that precede the course taken. Foreign language special credit counts toward graduation and toward the foreign language requirement.

Courses numbered 117 are reserved for students who have never studied the language before. Students who have had two or more years of formal study in a language may take a 117-level course in that language as a refresher course before enrolling in a more advanced course. Their work will be graded on a Satisfactory/Fail (S∕F) basis. A grade of S is equivalent to a minimum grade of C.

Nonnative Speakers Students for whom English is not a first language may be exempted from the foreign language requirement, without credit, by completion of English W131 and W132 with a minimum grade of C or better.

Native speakers of English who have achieved elementary or intermediate proficiency in a foreign language by studying or living in a country where the language is spoken should confer with the Foreign Languages and Cultures department for placement in the correct level of that foreign language.

Advanced Courses In addition to advanced courses in one's major, the new media student should conduct in-depth study in other areas. Courses at the 300 level plus must be completed in five areas: Required Core (6), Web-Based Programming (9), Concentration or Specialization (12), New Media Electives (12), and University Electives (12).

Required New Media core courses (18 cr.)
NEWM N100 Introduction to Digital Media Principles (3 cr.)
CSCI N241 Introduction to Web Design (3 cr.)
NEWM N101 Topics in Interactive Multimedia (3 cr.)
ENG W131 English Composition I (3 cr.)
CSCI N301 Fundamental Computer Science Concepts (3 cr.)
NEWM N499 Capstone: Portfolio or Project (3 cr.)

Web-Based Computer Programming (9 cr.)
CSCI N351 Introduction to Multimedia Programming (3 cr.)
CSCI N331 Visual Basic Programming (3 cr.)

CSCI N355 VRML   (3 cr.)
CSCI N341 Web Programming (3 cr.)
CSCI N345 Advanced Programming, Java (3 cr.)
CSCI N305 C Language Programming (3 cr.)

Concentration/Specialization Courses (24 cr.)
To be selected from one of the following areas (of which 12 credits must be at the 300 level or above)

Area 1:	Computer Technology
	Computer Science
	Library Information and Science
	New Media
Area 2:	Music
	Art
	Journalism
	New Media

New Media Electives (12 cr.)
Students must complete 12 credit hours of Media Arts and Science electives at the 300 level or above.

General-Education Requirements
COMM R110 Fundamentals of Speech Communication (3 cr.)
JOUR J200 Reporting, Writing, and Editing I (3 cr.) or ENG W132 English Composition II (3 cr.)

Foreign Language (10 cr.)
Students must complete 10 credit hours in a foreign language. Asian languages are recommended.

Analytical Skills (6 cr.)
MATH M111 Algebra (4 cr.) or higher level course (excluding MATH 130, MATH 131, MATH 132)
MATH M153 Algebra and Trigonometry I (3 cr.)
PHIL P162 Logic (3 cr.)
PHIL P265 Introduction to Symbolic Logic (3 cr.)

Arts and Humanities (6 cr.)
CMLT C190 Introduction to Film (3 cr.)
COMM T130 Introduction to Theatre (3 cr.)
FOLK F101 Introduction to Folklore (3 cr.)
HER H100 Art Appreciation (3 cr.)
MUS M174 Music for the Listener (3 cr.)
PHIL P120 Personal and Social Ethics (3 cr.)
REL R133 Introduction to Religious (3 cr.)
WOST W105 Introduction to Women's Studies (3 cr.)

Social Sciences (6 cr.)
AFRO A150 Afro-American Studies (3 cr.)
AMST A103 American Studies (3 cr.)
ANTH A104 Anthropology   (3 cr.)

ECON E101 Economics (3 cr.), E201 Introduction to Microeconomics (3 cr.) or E202 Introduction to Macroeconomics (3 cr.)
GEOG G110 Geography (3 cr.)
LING G104 Linguistics (3 cr.)
POLS Y101 Principles of Political Science (3 cr.) or POLS Y103 Introduction to American Politics (3 cr.)
PSY B104 Psychology (3 cr.)
SOC R100 Sociology (3 cr.)

University Electives (25 cr.) of which 12 hours must be completed at the 300 level or above

Suggested electives:
COMM C228 Discussion and Group Methods (3 cr.)
COMM M373 Film and Video Documentary (3 cr.)
COMM C380 Organizational Communication (3 cr.)
HER E101 Beginning Drawing (3 cr.)
HER E105 Beginning Painting (3 cr.)
HER E201 Basic Photography (3 cr.)
JOUR J210 Visual Communication (3 cr.)
JOUR J300 Communication Law (3 cr.)
PSY B366 Concepts and Applications in Organizational Psychology (3 cr.)
STAT B305 Statistics (3 cr.) **or**
Any course from the schools or departments of New Media, Art, Journalism, Music, Computer Science, Computer Technology, and∕or Library and Information Science.

Certificate in Internet Application Development

1. Minimum grade of 2.0 (C) in all courses taken for the certificate.

2. Students are required to complete 27 credit hours from the following list:

Design Courses
HER R201 Visual Research Web Basics (3 cr.)
HER A371 Intro to Interactive Design (3 cr.)

Writing Courses
JOUR J100 Computer Methods for Journalists (3 cr.)
JOUR J200 Reporting, Writing, and Editing I (P: ENG W131) (3 cr.)

Audio Courses
MUS M110 Music and Computers (3 cr.)
MUS Z320 Electronic Composition (3 cr.)

Programming Courses
CSCI 220 WWW Authoring and Design (3 cr.)

Application Development Courses

CPT 499 Multimedia Systems (3 cr.)

Elective (3 cr.)

Three credit hours in an internship, independent guided study application project, or three (3) credit hours in an approved

elective course from one of the following academic departments or schools:

  Art
  Computer Science
  Computer Technology
  Journalism
  Library and Information Science
  Music
  New Media
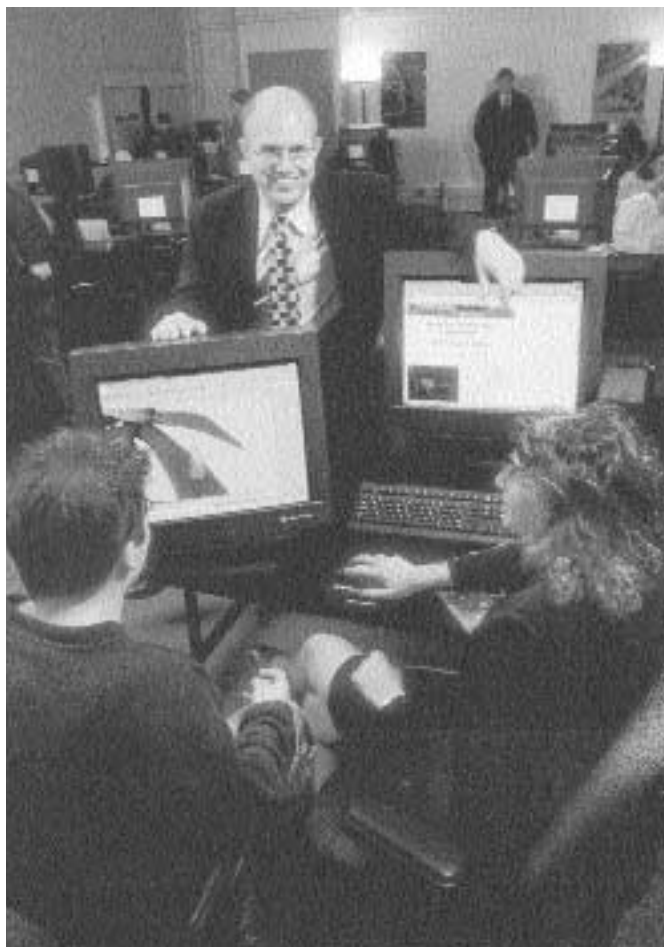
Darrell Bailey, executive associate dean of informatics and director of the new media program, and faculty member Susan Tennant (right).

Undergraduate Courses in the New Media Program, IUPUI

The abbreviation "P" refers to the course prerequisite or prerequisites. The number of hours of credit given a course is indicated in parentheses following the course title.

N100 Introduction to Digital Media Principles (3 cr.) The development of interactive multimedia requires principles garnered from a variety of disciplines. Through readings, critiques, exercises and discussion, students will explore what makes an interactive multimedia application successful and what types of applications are best suited to interactive multimedia. This course provides an introduction to the design of interactive multimedia drawing upon user interface design, task analysis, analysis of audience characteristics, and usability testing, as well as design and editing principles from animation and video production.

N101 Topics in Interactive Multimedia (3 cr.) P: N100. Interactive multimedia is a rapidly evolving field that is significantly influenced by changes in theory, storage media, computing hardware, authoring/presentation software and communication capabilities in disciplines such as music, art, and journalism. Students will be exposed to recent trends through the development of interactive media projects for use on multiple platforms, the Internet, and CD-ROM.

N110 Visualizing Information (3 cr.) A course to sketch visualization: perspective, projection, and actually "seeing" the world around us. The projects will be using traditional media in the beginning, and then computer – shading, shadows, and lighting.

N175 Digital Media I: Vector Imaging (3 cr.) P: N101. Vector graphics are produced using traditional visualization (sketches) and computer methods. Color theory, geometric construction, and rendering techniques are utilized in vector-based graphic creation for use in new media applications. (Illustrator)

N180 Digital Media II: Raster Imaging (3 cr.) P: N101. Raster graphics are produced using traditional visualization (sketches) and computer methods. Topics will include image composition, realistic representation, digital imaging for new media, color mode and pallet usage, material and value representation. (PhotoShop)

N200 Desktop Tools for Digital Media (3 cr.) P: N101. An introduction to the principles of multimedia creation and digital effects. The class will focus on a number of different software programs including Adobe Premiere, Director Authorware, Adobe PhotoShop,

SoftImage 3D, Houdini, Kodak Cineon, 3D Studio Max. Authoring, video, and sound editing computer applications, as well as cyberspace protocols and language are engaged.

N204 Introduction to Interactive Media (3 cr.) P: N101. The creation of interactive multimedia products for multiplatform delivery. Topics include: the multimedia production process, audience analysis, hardware and software requirements, authoring tools, scripting, content development, interface design, distribution and development strategies. Concentration will be on practical applications for interactive multimedia. (Director)

N210 Introduction to Digital Sound (3 cr.) P: N101. An introduction to digital sound creation and editing. Topics will focus on analog sound techniques and equipment, analog to digital conversion, basic editing, formats and conversions, digital to analog conversion, and basic sound effect techniques for new media. (Soundforge and Cool Edit 16)

N215 Online Document Development (3 cr.) P: N101. An introductory course for the creation, publication, and management of documents and images for online distribution. Topics include an introduction to Web site development, portable document formats, online publishing, document conversion, file exchanges, and image preparation. (Dreamweaver)

N230 Introduction to Game Design and Development (3 cr.) P: N101, N175, N180. An introduction course to "video" game design and development for entertainment. Topics include game theory, design and development of computer-based games, current game delivery systems and software, the commercial development cycle, case studies of current games, ethical issues including the current game-rating system, emerging technical developments in game development, and current game trends. Students will develop new levels of existing games.

N235 Introduction to Computer Simulation/Animation (3 cr.) P: N101. An introductory course covering applied three-dimensional computer graphic animation for students interested in the use of design, time, and motion study; surface texture mapping; lighting; color; and the technology required to produce computer animations for commercial applications in manufacturing design, marketing, training, gaming, Web creation, and entertainment. (3D Studio Max)

N240 Introduction to Digital Video (3 cr.) P: N101. An introductory course covering applied video techniques for digital media

production and introducing the basics of equipment associated with analog and digital video production. Designed for students interested in the use of design, time, and motion study; lighting; color; and the technology required to produce video for commercial applications in manufacturing design, marketing, training, gaming, Web creation, and entertainment. (Adobe Premiere)

N250 Team Building in Technology (3 cr.)
P: N101. This methods course helps students improve their effectiveness in solving problems and expand their critical thinking when working in groups. This course is practical in orientation, including the interpersonal process, decision-making styles, problem- solving concepts and procedures, the creative effort, conflict resolution, leadership, and assessment. Students develop projects with objectives, requirements, and constraints; client requests and implementation of the design solution. They execute the design plan and evaluate the final project.

N300 Digital Media Production (3 cr.)
P: N101. This is an advanced course demanding innovational design and technical skills to meet systematic studio work on complex computational undertakings resulting in multimedia and cyber-communication projects that are conceived, observed, and analyzed. Students learn digital skills and tools through lectures and hands-on experimentation, including creative process and evaluation. Combines the production of journalism, music composition, and animation/simulation, with computer transmission of imaging, sound, and video.

N302 Media Simulation Methods (3 cr.)
P: N101. A study of the fundamentals and methods of building and using computer-based simulation models, including the utility of simulation as a decision support tool; representing queuing systems in a computer model; simulated sampling from distributions of input variables; point and interval estimates of expected values of output variables; and the design of simulation sampling experiments.

N304 Interactive Media Applications (3 cr.)
P: N204. Digital design methodology and techniques, control and timing, machine organization, instruction sequencing, and data flow control; control unit implementation by means of hardware and micro-programming; synchronization of input/output operations with interface design. (Director 2).

I310 Multimedia Arts: History, Criticism, and Technology (3 cr.) This course studies how the paradigm shift to a digital world will affect humanity. The course will consider the evolution of media arts and its underlying principles of communications. Students will

study application development paradigms in current practice. Readings, lectures, class discussions, and research papers.

N311 The Digital Paradigm Shift: Effects in International Cultures and Society (3 cr.) This course teaches how the paradigm shift to a digital world will affect international cultures and societies. A study of the major paradigm shifts in reference to culture and society as well as the effect for the future for humanity as a culture. Readings, lectures, class discussions, and papers with supported citations.

N315 Online Document Development II (3 cr.) P: N215. Advanced creation, publication, and management of interactive publications for online distribution with the inclusion of emerging technologies for a media-rich experience. Topics include interactive Web site development, animations for the Web, online interactive design, document conversion, file exchanges, and digital media development for online usage. (Dreamweaver, Flash, DeBabilizer, Fireworks).

N330 Game Design, Development, and Production (3 cr.) P: N230. Advanced game development by producing interactive computer-based games. The process learned in N230 will be put into practice by developing a story, characters, programming, and an interactive game based on current trends in game development. Use of actual game development systems for current console gaming systems.

N335 Computer-Based Character Simulation/Animation II (3 cr.) P: N235. This course takes the basics of computer animation to the next level by including character animation. Topics include character development, modeling for character animation, 3D painting for custom texture, character animation techniques, and more advanced topics in relation to animation, such as particle systems. (3D Studio Max, Bryce, 3D Painter).

N340 Digital Video Production (3 cr.) P: N240. An advanced course covering applied video techniques for digital media production. More features for creating, editing, and producing digital video will be explored through collaborative production. Designed for students interested in the use of more advanced techniques utilizing video. (After Effects).

N400 Imaging and Digital Media Seminar (3 cr.) Variable titled course designed to bring guest speakers from industry as well as other disciplines on campus to expose students to the wide realm of new media and how it can be utilized in each discipline. Class discussions, assigned readings, and research papers.

N410 History and Theory of Digital Media (3 cr.) Examines the history of computer-based media, technologies, and the digital information age. Topics include studying historical components and developments, current digital media, and research speculation towards the future of digital media and technologies.

N420 Multimedia Project Development (3 cr.) This course will focus on total project design and development of interactive multimedia applications. Topics to be covered include system design and development, selection of appropriate hardware and software platforms, use of productivity tools, project management, dynamics of team-based project development, cost analysis, prototyping, pilot testing, and other evaluation techniques. Students will work in teams to develop large-scale projects.

N435 Computer Simulation/Animation III Production (3 cr.) P: N335. An advanced class in working with computer animation. This class will focus more on greater story development and on a commercially finished product. Topics will include outputting techniques for broadcast usage, incorporation of digital sound and music, good story and character development, and development process with focus on end product.

N440 DV and CGI Special Effects (3 cr.) P: N340 and CSCI N345. An advanced course covering computer generated imagery and special effects techniques for video production as utilized in the industry. Techniques for creating special effects, video shooting for effects, and the use of effects to aid in the telling of a story. Topics include the integration of text, graphics, sound, video, and animation into video development software. Editing and producing special effects will be explored through projects. (After Effects, Elastic Reality, Boris FX).

N475 Research in Design Methods (3 cr.) This course is designed to give students an understanding of the advanced concepts of theoretical topics, simulation modeling, and analysis concepts. Investigate applications of simulation in systems characterized by probabilistic behavior and where artists compete for scarce resources.

N485 Seminar in New Media (3 cr.) Current trends, problems, best practices, and developments in new media. Students pursue a special interest and share information and experience with the group. This course is an in-depth exploration of topics and issues at the forefront of new media. Seminar-format with research papers and class discussion/presentations.

N490 Independent Study (1-6 cr.) Research and practical experience in various areas of new media as selected by the student prior to registration, outlined in consultation with the instructor and approved by the program advisor. Total credit of Internship/Independent Study cannot exceed 9 credit hours.

N495 Enrichment Internship (3 cr.) P: Junior standing and approval of program advisor. Industry, corporate, or similar experience in new media-oriented employment. Projects jointly arranged, coordinated, and evaluated by faculty and industrial supervisors. Apply during the semester prior to desired internship.

N499 Capstone Experience (3 cr.) The capstone experience culminates the student's major and integrates the student's learning across the field. Students select a particular area of interest in New Media and may elect an internship or project in media arts and technology in collaboration with their academic advisor. Requirements vary depending upon choice of internship or project. (To be taken during the students' senior year).

School of Informatics Founding Faculty

(B) = IUB; (I) = IUPUI

The following faculty, drawn from many academic units, were involved in founding the School of Informatics.

Appelman, Robert L., Ph.D. *(Indiana University, 1993), Coordinator, Multimedia Development, School of Education (B)*

Bailey, Darrell L., Ed.D. *(University of Illinois, 1989), Associate Dean of Informatics; Director, New Media; Associate Professor of Music (I)*

Barwise, K. Jon, Ph.D. (deceased) *(Stanford University, 1967), Professor of Computer Science, Mathematics and Philosophy; Adjunct Professor of Linguistics (B)*

Berbari, Edward J., Ph.D. *(University of Iowa, 1980), Director, Biomedical Engineering; Chair and Professor of Electrical Engineering; and Professor of Medicine (I)*

Bernbom, Gerald V., M.S.Ed. *(Northern Illinois University, 1978), Director, Research and Academic Computing; Special Assistant to the Vice President for Information Technology (B)*

Billings, Diane M., Ed.D. *(Indiana University, 1986), Associate Dean and Professor of Nursing (I)*

Bobay, Julianne, M.L.S. *(Indiana University, 1980), Head of Library and Information Science; Head Librarian and Walden Librarian (B)*

Boling, Elizabeth, M.FA. *(Indiana University, 1983), Chair, Instructional Systems Technology; Associate Professor of Education (B)*

Börner, Katy, Ph.D. *(University of Kaiserslautern, 1997), Core Member of Cognitive Science Program; Assistant Professor of Information Science (B)*

Boschmann, Erwin, Ph.D. *(University of Colorado, 1968), Associate Vice President for Distributed Education; Professor of Chemistry (I)*

Bower, Frederick, M.F.A. *(Cranbrook Academy of Art, 1994), Visiting Assistant Professor in New Media (I)*

Bramley, Randall B., Ph.D. *(University of Illinois, 1989), Associate Professor of Computer Science (B)*

Brown, Chris, J.D. *(Indiana University, 1996), Associate Partner, Woodard, Emhardt, Naughton, Moriarty and McNutt; Adjunct Professor of New Media (I)*

Brown, James W., Ph.D. *(Indiana University, 1977), Associate Dean and Professor of Journalism; Adjunct Professor of Communication Studies (I)*

Brown, Paul T., M.F.A. *(Indiana University, 1985), Associate Dean of Art; Associate Professor of Visual Communication (I)*

Bucy, Erik P., Ph.D. *(University of Maryland, 1998), Assistant Professor of Telecommunications (B)*

Bukhres, Omran, Ph.D. *(North Dakota State University, 1990), Associate Professor of Computer and Information Science (I)*

Cate, Fred H., J.D. *(Stanford University, 1987), Professor of Law and Harry T. Ice Faculty Fellow (B)*

Chapuis, Andre, Ph.D. *(Indiana University, 1993), Part-time Assistant Professor of Informatics (B)*

Chidambaram, Laku, Ph.D. *(Indiana University, 1989), Associate Professor of Accounting and Information Systems and Public and Environmental Affairs (B)*

Cohen, Mervyn D., M.D. *(University of Edinburgh [Scotland], 1978), Chairman, Department of Radiology; Eugene C. Klatte Professor of Radiology (I)*

Crews, Kenneth Donald, Ph.D. *(University of California, Los Angeles, 1990), Associate Dean of the Faculties and Director of Copyright Management; Associate Professor of Law and Library and Information Science (I)*

Cronin, Blaise, Ph.D. *(Queens University [Northern Ireland], 1983), Dean of Library and Information Science; Rudy Professor of Information Science (B)*

Cunningham, Donald J., Ph.D. *(University of Illinois, 1970), Director, Center for Semiotics Studies; Professor of Education (B)*

Cutzu, Florin, Ph.D. *(The Weizmann Institute of Science, 1997), Assistant Professor of Computer Science (B)*

Dalkilic, Mehmet, Ph.D. *(Indiana University, 2000), Visiting Assistant Professor of Informatics (B)*

Davis, Kenneth W., Ph.D. *(University of Michigan, 1975), Chair and Professor of English; Adjunct Professor of New Media (I)*

Defazio, Joseph, M.S. *(Ball State University, 1993), Assistant Professor of New Media; Lecturer in Computer Technology (I)*

Dillon, Andrew Patrick, Ph.D. *(Loughborough University [England], 1991), Director, Program in Human-Computer Interaction; Associate Professor of Informatics and Information Science; Adjunct Associate Professor of Computer Science (B)*

Dolinsky, Margaret, M.F.A. *(University of Illinois, 1998), Visiting Assistant Professor of Fine Arts and Research Scientist (B)*

Duffy, Thomas M., Ph.D. *(University of Illinois, 1969), Director, Center for Research on Learning and Technology; Barbara B. Jacobs Chair and Professor of Education; Research Associate, Instructional Support Services (B)*

Dunn, J. Michael, Ph.D. *(University of Pittsburgh, 1966), Dean of Informatics; Oscar R. Ewing Professor of Philosophy; Professor of Computer Science (B)*

Dybvig, R. Kent, Ph.D. *(University of North Carolina, 1987), Professor of Computer Science (B)*

Elliott, Terry L., B.A. *(Indiana University, 1998), Adjunct Professor of Informatics; Visiting Lecturer in Computer and Information Science (I)*

Fang, Shiaofen, Ph.D. *(University of Utah, 1992), Assistant Professor of Computer and Information Science (School of Science) (I)*

Friedman, Daniel P., Ph.D. *(University of Texas, 1973), Professor of Computer Science (B)*

Gannon, Dennis B., Ph.D., *(University of California, Davis, 1974; University of Illinois, 1980), Chair and Professor of Computer Science (B)*

Gantz, Walter, Ph.D. *(Michigan State University 1975), Chair and Professor of Telecommunications (B)*

Gasser, Michael E., Ph.D. *(University of California, 1988), Associate Professor of Linguistics and Computer Science (B)*

Gilbert, Donald G., Ph.D. *(Indiana University, 1981), Associate Scientist in Biology (B)*

Gillespie, Thomas K., Ph.D. *(University of California, 1992), Clinical Associate Professor of Telecommunications (B)*

Hanson, Andrew J., Ph.D. *(Massachusetts Institute of Technology, 1971), Director of Graduate Studies and Professor of Computer Science (B)*

Harris, Andrew J., B.S. *(Indiana University, 1990), Lecturer in Computer and Information Science (I)*

Haynes, Christopher T., Ph.D. *(University of Iowa, 1982), Director of Undergraduate Studies and Associate Professor of Computer Science (B)*

Henning, Joanna, M.S. *(Indiana University, 1995), Associate Professor of English; Adjunct Professor of New Media; Staff Development, Media Technology Department of MSD, Pike High School (I)*

Herring, Susan, Ph.D. *(University of California-Berkeley, 1991), Associate Professor of Information Science (B)*

Hieftje, Gary M., Ph.D. *(University of Illinois, 1969), Gill Chair and Distinguished Professor of Chemistry; Director, Linda and Jack Gill Center for Instrumentation and Measurement Science; Professor of Public and Environmental Affairs (B)*

Ho, Thomas, Ph.D. *(Purdue University, 1974), Chair and Professor of Computer Technology (I)*

Hofstadter, Douglas R., Ph.D. *(University of Oregon, 1975), College Professor of Cognitive Science and Computer Science; Adjunct Professor of Philosophy; Adjunct Professor of History and Philosophy of Science (B)*

Hook, Sara A., M.B.A., J.D. *(Indiana University, 1988; Indiana University, 1994), Associate Dean of the Faculties; Professor of Dental Informatics; Librarian, School of Dentistry Library (I)*

Houser, Nathan R., Ph.D. *(University of Waterloo [Canada], 1985), Director, Peirce Project; Professor of Philosophy; Adjunct Associate Professor, American Studies Center (I)*

Huang, Jeffrey R.J., Ph.D. *(George Mason University, 1998), Assistant Professor of New Media and Computer Science (I)*

Huckleberry, Don J., M.S. *(Indiana University, 1999), Adjunct Professor of New Media and Media Technology Coordinator (I)*

Huffman, John C., Ph.D. *(Indiana University, 1974), Senior Scientist in Chemistry (B)*

Jacob, Elin K., Ph.D. *(University of North Carolina, 1994), Assistant Professor of Library and Information Science (B)*

Jafari, Ali, Ph.D. *(Indiana University, 1988), Director of Information Technology Laboratory; Associate Professor of Computer Technology (I)*

Jamieson, Patrick W., M.D. *(Ohio State University, 1981), Associate Scientist in Radiology; Associate Professor of Radiology (I)*

Johnson, Steven D., Ph.D. *(Indiana University, 1983), Associate Professor of Computer Science (B)*

Jones, Scott, B.S. *(Indiana University, 1984), Adjunct Professor of Informatics (B)*

Karnick, Kristine B., M.A. *(University of Wisconsin, 1984), Associate Professor of Communication Studies (I)*

Kewley-Port, Diane, Ph.D. *(City University of New York, 1981), Associate Professor of Speech and Hearing Sciences (B)*

Kidd, Gary R., Ph.D. *(Ohio State University, 1984), Associate Scientist in Speech and Hearing Sciences (B)*

Kling, Rob, Ph.D. *(Stanford, 1971), Professor of Information Science and Systems; Adjunct Professor of Computer Science (B)*

Koch, Clinton, M.S. *(Indiana University-Purdue University-Indianapolis, 2000), Adjunct Professor of Informatics (I)*

Koh, Jee, Ph.D. *(University of Michigan, 1983), Associate Professor of Mathematics (B)*

Lang, Annie, Ph.D. *(University of Wisconsin, 1987), Professor of Telecommunications (B)*

Leaffer, Marshall A., J.D., L.L.M. *(University of Texas, 1971; New York University, 1976), Distinguished Scholar in Intellectual Property Law and University Fellow (B)*

Leake, David, Ph.D. *(Yale University, 1990), Associate Professor of Computer Science (B)*

Leivant, Daniel M., Ph.D. *(University of Amsterdam, 1975), Professor of Computer Science; Adjunct Professor of Philosophy and Mathematics (B)*

Lewis, David W., M.S. *(Columbia University, 1975), Associate Executive Director of University Libraries; Acting University Librarian; Librarian, Public Services (I)*

Liou, Jawshing Arthur, M.F.A. *(University of Florida, 1998), Assistant Professor of Fine Arts, Studio Art Program (B)*

Lipkowitz, Kenneth B., Ph.D. (*Montana State University, 1975), Associate Director, Program in Chemical Informatics; Professor of Chemistry (I)*

Liu, Wei-min, Ph.D. *(Cornell University, 1987), Associate Professor of Computer and Information Science (I)*

Malik, David J., Ph.D. *(University of California 1976), Chair and Professor of Chemistry (I)*

Massey, Anne P., Ph.D. *(Rensselaer Polytechnic Institute, 1991), Associate Professor of Information Systems (B)*

McCarty, David C., D.Phil. *(Oxford University [England], 1985), Associate Professor of Philosophy; Adjunct Associate Professor of Computer Science (B)*

McDaniel, Anna M., D.N.S. *(Ball State University, 1991), Interim Director, Program in Health Informatics; Associate Professor of Nursing; Adjunct Associate Professor of Public Health (I)*

McDonald, Clement J., M.D. *(University of Illinois, 1965), Director, Regenstrief Institute; Distinguished Professor of Medicine; Regenstrief Professor of Health Services Research; Professor of Public and Environmental Affairs (I)*

McGerr, Michael E., Ph.D. *(Yale University, 1984), Associate Dean of Arts and Sciences; Director, Liberal Arts and Management Program; Associate Professor of History (B)*

McGowan, Julie J., Ph.D. *(University of South Carolina, 1991), Director, Ruth Lilly Medical Library (I)*

McGregor, Michael A., J.D. *(Georgetown University, 1977), Chair and Associate Professor of Telecommunications (B)*

McMullen, Donald F., Ph.D. *(Indiana University, 1982), Director, CICA; Assistant Professor of Computer Science; Adjunct Professor of Computer Science (B)*

McRobbie, Michael A., Ph.D. *(Australian National University, 1979), Vice President for Information Technology and Chief Information Officer; Professor of Computer Technology; Professor of Computer Science; Professor of Philosophy; Adjunct Professor of Information Science (B)*

Miller, Theodore K., Ph.D. *(University of Iowa, 1970), Co-Director, Interdisciplinary Consortium for Statistical Applications; Professor of Public and Environmental Affairs; Professor of Geography (B)*

Mills, Jonathan W., Ph.D. *(Arizona State, 1988), Associate Professor of Computer Science (B)*

Molnar, Robert S., B.S. *(Indiana University, 1996), Adjunct Professor of Informatics; Lecturer in Computer and Information Science (I)*

Morris, Harold, P.E.D. *(Indiana University, 1972), Chair and Professor of Kinesiology (B)*

Moss, Lawrence S., Ph.D. *(University of California, Los Angeles, 1984), Associate Professor of Mathematics; Adjunct Associate Professor of Linguistics (B)*

Mostafa, Javed, Ph.D. *(University of Texas-Austin, 1994), Victor H. Yngve Associate Professor of Information Science; Associate Professor of Informatics; Adjunct Associate Professor of Computer Science (B) (I)*

Mukhopadhyay, Snehasis, Ph.D. *(Yale University, 1994), Associate Director, Program in Bioinformatics; Assistant Professor of Computer and Information Science (I)*

Nunn, Samuel, Ph.D. *(University of Delaware, 1981), Associate Professor of Public and Environmental Affairs (I)*

Odland, John Jacob M., Ph.D. *(Ohio State University, 1972), Professor of Geography (B)*

Ogan, Christine, Ph.D. *(University of North Carolina, 1976), Associate Dean of Informatics; Professor of Journalism (B)*

Olson, Andrew M., D.Sc. *(Washington University, 1969), Associate Professor of Computer and Information Science (I)*

Palakal, Mathew J., Ph.D. *(Concordia University [Canada], 1987), Chair, Department of Computer and Information Science; Associate Professor of Computer and Information Science (I)*

Paolillo, John, Ph.D. *(Stanford University, 1992), Visiting Associate Professor of Linguistics; Visiting Associate Professor of Informatics; Visiting Associate Professor of Information Science (B)*

Patterson, Robert, B.S. *(University of Texas, 1987), Visiting Lecturer in New Media (I)*

Pavlis, Gary L., Ph.D. *(University of Washington, 1982), Professor of Geological Science (B)*

Peebles, Christopher S., Ph.D. *(University of California, Santa Barbara, 1974), Associate Vice President for Research and Academic Computing; Dean, Information Technology; Director, Glenn Black Laboratory of Archaeology; Professor of Anthropology; Research Associate for Language and Semiotic Studies (B)*

Perkins, William C., D.B.A. *(Indiana University, 1966), Professor of Information Systems; Professor of Decision and Information Systems (B)*

Perry, Douglas G., Ph.D. *(City University of New York, 1991), Associate Dean of Informatics; Associate Dean of Medicine-Allied Health Sciences; Associate Professor of Health Sciences; Adjunct Associate Professor of Medicine (I)*

Peters, G. David, D.Mus.Ed. (*University of Illinois, 1974), Director, Music Program and Professor of Music (I)*

Plater, William M., Ph.D. *(University of Illinois, 1973), Executive Vice Chancellor; Dean of the Faculties; Professor of English; Adjunct Professor of Philanthropic Studies (I)*

Port, Robert F., Ph.D. *(University of Connecticut, 1976), Professor of Linguistics and Computer Science (B)*

Priss, Uta E., Ph.D. *(Technische Hochschule Darmstadt, 1996), Assistant Professor of Library and Information Sciences (B)*

Purdom, Jr., Paul W., Ph.D. *(California Institute of Technology, 1966), Professor of Computer Science (B)*

Raje, Rajeev R., Ph.D. *(Syracuse University, 1994) Assistant Professor of Computer and Information Science (I)*

Rawlins, Gregory J.E., Ph.D. *(University of Waterloo [Canada], 1987), Associate Professor of Computer Science (B)*

Reed, Mary Ellen, B.F.A. *(Herron School of Art, 1971), Adjunct Professor of Informatics (I)*

Reese, Fred, D.Musical Arts *(University of Southern California, 1977), Adjunct Professor of New Media (I)*

Rieseberg, Loren H., Ph.D. *(Washington State University, 1987), Senior Fellow, Institute for Molecular and Cellular Biology; Professor of Biology (B)*

Robbin, Alice R., Ph.D. *(University of Wisconsin, 1984), Associate Professor of Library and Information Science (B)*

Roberts, Michele S., M.A., M.B.A. (*Indiana State University, 1978; Indiana Wesleyan, 1995), Adjunct Professor of New Media; Lecturer in Computer and Information Science (I)*

Robertson, Edward L., Ph.D. *(University of Wisconsin, 1970), Associate Dean of Informatics; Professor of Computer Science (B)*

Rosenbaum, Howard S., Ph.D. *(Syracuse University, 1996), Assistant Professor of Library and Information Science (B)*

Rubin, Barry M., Ph.D. *(University of Wisconsin, 1977), Associate Dean of Bloomington Programs for Public and Environmental Affairs; Director of Graduate Programs and Professor of Public and Environmental Affairs (B)*

Sabry, Amr, Ph.D. *(Rice University, 1994), Associate Professor of Computer Science (B)*

Schwartz, Helen J., Ph.D. *(University of Washington, 1971), Professor of English (I)*

Schwen, Thomas, Ed.D. *(Indiana University, 1970), Associate Professor of Education (B)*

Shakespeare, Robert A., B.A. *(Brock University [Canada], 1973), Associate Professor of Theatre and Drama (B)*

Shaw, Debora, Ph.D. *(Indiana University, 1983), Associate Dean and Associate Professor of Library and Information Science; Chair of Curriculum Committee of Informatics (B)*

Shiffrin, Richard M., Ph.D. *(Stanford University, 1968), Luther Dana Waterman Professor of Psychology (B)*

Cantwell Smith, Brian, Ph.D. *(Massachusetts Institute of Technology, 1982), Professor of Cognitive Science and Computer Science (B)*

Soni, Ashok K., D.B.A. *(Indiana University, 1981), Chair of Technology of Kelley School of Business; Associate Professor of Decision Sciences (B)*

Sothmann, Mark S., Ph.D. *(Purdue University, 1982), Dean and Professor of Allied Health Sciences; Associate Dean of Medicine (I)*

Springer, George, Ph.D. *(Harvard University, 1949), Professor Emeritus of Mathematics and Computer Science (B)*

Sutherland, Scott, B.F.A. *(Ohio State University), Visiting Lecturer of New Media and Instructor of Art (I)*

Tennant, Susan, M.S. *(Indiana University-Purdue University-Indianapolis, 2000), Visiting Lecturer in New Media (I)*

Terry, Herbert A., Ph.D. *(University of Minnesota, 1976), Associate Professor of Telecommunications (B)*

Thorin, Suzanne E., M.L.S. *(University of Michigan, 1968), Ruth Lilly University Dean, Librarian, and Adjunct Professor of Library and Information Science (B)*

Tierney, William M., M.D. *(Indiana University, 1976), Professor of Medicine and Public and Environmental Affairs (I)*

Tuceryan, Mihran, Ph.D. *(University of Illinois, 1986), Associate Professor of Computer and Information Science (I)*

Van Gucht, Dirk, Ph.D. *(Vanderbilt University, 1985), Director of Graduate Studies and Associate Professor of Computer Science (B)*

Watson, Charles S., Ph.D. *(Indiana University, 1963), Director, Institute for the Study of Human Capabilities; Professor Emeritus of Psychology and Speech and Hearing Sciences (B)*

Wiggins, Gary D., Ph.D. *(Indiana University, 1985), Director of Programs in Bioinformatics and Chemical Informatics; Director of Chemical Informatics Center; Librarian and Head of Chemistry Library; Coordinator of Science Libraries (B)*

Willing, Stephen J., M.B.A., M.D. *(University of Alabama, 1997; Medical College of Georgia, 1980), Associate Professor of Radiology (I)*

Wise, David S., Ph.D. *(University of Wisconsin, 1971), Professor of Computer Science (B)*

Wittlich, Gary E., Ph.D. *(University of Iowa, 1969), Professor Emeritus of Music (B)*

Key to Course Codes

AFRO	Afro-American Studies (COAS)
AMID	Apparel Merchandising and Interior Design (COAS)
AMST	American Studies Program (COAS)
ANAT	Anatomy (Medical Sciences Program)
AST	Astronomy (COAS)
BIOL	Biology (COAS)
BUS	Business (Kelley School of Business)
CHEM	Chemistry (COAS)
CLAS	Classical Studies (COAS)
COAS	College of Arts and Sciences
COGS	Cognitive Science Programs (COAS)
CMLT	Comparative Literature (COAS)
CJUS	Criminal Justice (COAS)
CSCI	Computer Science (COAS)
ECON	Economics (COAS)
EDUC	Education (School of Education)
ENG	English (COAS)
FINA	Fine Arts (COAS)
GEOG	Geography (COAS)
GEOL	Geological Sciences (COAS)
GNDR	Gender Studies (COAS)
HIST	History (COAS)
HPER	School of Health, Physical Education, and Recreation
HPSC	History and Philosophy of Science (COAS)
HON	Honors (COAS)
INFO	Informatics (School of Informatics)
JOUR	Journalism (School of Journalism)
LAMP	Liberal Arts and Management Program (COAS)
LING	Linguistics (COAS)
MATH	Mathematics (COAS)
MUS	Music (COAS)
NEWM	New Media (School of Informatics)
NURS	Nursing (School of Nursing)
PHIL	Philosophy (COAS)
PHSL	Physiology (Medical Sciences Program)
PHYS	Physics (COAS)
POLS	Political Science (COAS)
PSY	Psychology (COAS)
REL	Religious Studies (COAS)
SLIS	School of Library and Information Science
SOC	Sociology (COAS)
SPEA	School of Public and Environmental Affairs
SPHS	Speech and Hearing Sciences (COAS)
TEL	Telecommunications (COAS)
THTR	Theatre and Drama (COAS)
UDIV	University Division (COAS)

Indiana University

When you become a student at Indiana University, you join an academic community internationally known for the excellence and diversity of its programs. With 1,013 degree programs, the university attracts students from all 50 states and around the world. The full-time faculty numbers more than 4,000 and includes members of many academic societies such as the American Academy of Arts and Sciences, the American Philosophical Society, and the National Academy of Sciences.

Indiana University was founded at Bloomington in 1820 and is one of the oldest and largest institutions of higher education in the Midwest. It serves 92,000 students on eight campuses. The residential campus at Bloomington and the urban center at Indianapolis form the core of the university. Campuses in Gary, Fort Wayne, Kokomo, New Albany, Richmond, and South Bend join Bloomington and Indianapolis in bringing an education of high quality within reach of all of Indiana's citizens.

General Policies

Equal Opportunity/Affirmative Action Policy of Indiana University

Indiana University pledges itself to continue its commitment to the achievement of equal opportunity within the university and throughout American society as a whole. In this regard, Indiana University will recruit, hire, promote, educate, and provide services to persons based upon their individual qualifications. Indiana University prohibits discrimination based on arbitrary consideration of such characteristics as age, color, disability, ethnicity, gender, marital status, national origin, race, religion, sexual orientation, or veteran status.

Indiana University shall take affirmative action, positive and extraordinary, to overcome the discriminatory effects of traditional policies and procedures with regard to the disabled, minorities, women, and Vietnam-era veterans.

An Affirmative Action office on each campus monitors the university's policies and assists individuals who have questions or problems related to discrimination.

Special Assistance

For people who have disabilities and need special assistance, special arrangements can be made to accommodate most needs. In Bloomington, contact Disabled Student Services at (812) 855-7578; at IUPUI, contact Adaptive Educational Services at (317) 274-3241.

Confidentiality of Student Records

In accordance with federal statutes and regulations, student records are confidential and available for disclosure to persons other than the student only under stated conditions.

Student Rights and Responsibilities

A statement of students' rights and responsibilities is published in a handbook, *Code of Student Rights, Responsibilities, and Conduct*, which contains a description of due process hearings in the event of disciplinary action.

Degree Requirements   Students are responsible for understanding all requirements for graduation and for completing them by the time they expect to graduate. Information about a specific school or division can be found in the front section of the bulletin for that school.

Requests for deviation from department, program, or school requirements may be granted only by written approval from the respective chairperson, director, or dean (or a designated administrative representative). Disposition at each level is final.

Undergraduate Admissions Policy

Indiana University has adopted the following admissions policy to ensure that undergraduate students are properly prepared for college work. These standards seek to ensure either adequate academic preparation in high school or evidence of unusual motivation on the part of each student admitted to the university. Applicants for admission to Indiana University are expected to meet the following criteria.

Freshman Students[1]

1. Graduation from an accredited Indiana high school or comparable out-of-state institution, successfully completing a minimum of 28 semesters of college-preparatory courses including the following:
   - (a) Eight semesters of English. (One semester each of speech and journalism may be included.)
   - (b) Four semesters of social science (economics, government, history, psychology, or sociology).
   - (c) Four semesters of algebra (two semesters of which must be advanced algebra) and two semesters of geometry.
   - (d) Two semesters of laboratory science (biology, chemistry, or physics).

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[1] Some academic programs require specific qualifications in addition to those enumerated in this policy.

(e) Eight semesters in some combination of foreign language; additional mathematics, laboratory science, or social science; computer science; and other courses of a college-preparatory nature.
(f) Four semesters of foreign language are strongly recommended.
(g) Courses to develop writing composition skills are strongly recommended.
2. A rank in the upper half of the high school graduating class for Indiana residents or a rank in the upper third of the high school graduating class for out-of-state residents.
3. A score above the median established by Indiana students on a nationally standardized admissions test. Students who have been out of high school for three or more years do not have to submit test scores unless required for admission to specific programs.
4. Each campus may accept students who are deficient in (1), (2), or (3) of the above specifications upon receipt of such evidence as the combination of strength of college-preparatory program, rank in class, grades and grade trends in college-preparatory courses, and standardized test scores. For persons who do not meet the above criteria and who have been out of high school three or more years, admission can be based on other factors such as a General Educational Development (GED) diploma, maturity, work experience, military service, and other factors as determined by the campus.
5. Each campus, at its discretion, may admit a student on a probationary basis and/or through faculty sponsorship.

Transfer Students[1]
1. Submission of official transcripts from all previous institutions attended.
2. The transcripts must reflect a cumulative grade point average of at least a 2.0 (on a 4.0 scale) for Indiana residents and at least a 2.5 (on a 4.0 scale) for out-of-state residents.
3. If the student has fewer than 26 transferable credit hours, the high school record should reflect compliance with freshman admission requirements as specified above.
4. The credentials of students seeking transfer to Indiana University will be evaluated on an individual basis.

When students do not qualify upon first application, they will be counseled about ways of removing deficiencies so that they may

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[1] Some academic programs require specific qualifications in addition to those enumerated in this policy.

qualify for admission at a later date. If any provision of this policy is held invalid, the invalidity does not affect other provisions of this policy which can be given effect without the invalid provision, and to this end the provisions of this policy are severable.

Transfer to Other Indiana University Campuses

The policy stated below concerning transfer credit pertains to undergraduate students only.

Indiana University credits transferred from one campus of Indiana University to another will be evaluated and accepted in terms at least as favorable as credits transferred from other accredited institutions in the United States. No review of the credits will be undertaken except in good faith terms of the same criteria used in evaluating external credits. In fact, students transferring within the Indiana University system are treated much more favorably because of the similarity of course work on the eight campuses.

Students who want to transfer to another campus should follow these procedures:
1. Inform your academic advisor of your decision as soon as possible. Degree requirements may vary from one campus to another but if your advisor knows of your plan, your academic program can be designed to meet the requirements of the campus you will eventually attend.
2. Contact the department chairperson (or the designated advisor) at the campus you plan to attend. Discuss your plan and ask about any special procedures. For example, students transferring in fine arts must submit portfolios of their work. Music transfer students must be auditioned.
3. As the date of transfer approaches, check with your campus registrar to get information on registration dates and procedures on the other campus. If there is a preregistration or preenrollment procedure at the other campus, you should plan to take advantage of it. Contact the registrar of the other campus to determine whether you can fulfill any of these responsibilities by phone. Your registrar has a direct telephone line to all other registrars.
4. When you arrive on the new campus, contact your assigned academic adviser or department chairperson as soon as possible. Discuss your academic progress to date and the additional course work required for your program.

Rules Determining Resident and Nonresident Student Status for Indiana University Fee Purposes

These Rules establish the policy under which students shall be classified as residents or nonresidents upon all campuses of Indiana University for University fee purposes. Nonresident students shall pay a nonresident fee in addition to fees paid by a resident student.

These Rules shall take effect February 1, 1974; provided, that no person properly classified as a resident student before February 1, 1974, shall be adversely affected by this Rule, if he or she attended the University before that date and while he or she remains continuously enrolled in the University.
1. ''Residence'' as the term, or any of its variations (e.g., ''resided''), as used in the context of these Rules, means the place where an individual has his or her permanent home, at which he or she remains when not called elsewhere for labor, studies, or other special or temporary purposes, and to which he or she returns in seasons of repose. It is the place a person has voluntarily fixed as a permanent habitation for himself or herself with an intent to remain in such place for an indefinite period. A person at any one time has but one residence, and a residence cannot be lost until another is gained.
  (a) A person entering the state from another state or country does not at that time acquire residence for the purpose of these Rules, but except as provided in Rule 2(c)[1], such person must be a resident for 12 months in order to qualify as a resident student for fee purposes.
  (b) Physical presence in Indiana *for the predominant purpose* of attending a college, university, or other institution of higher education, shall not be counted in determining the 12-month period of residence; nor shall absence from Indiana for such purpose deprive a person of resident student status.
2. A person shall be classified as a ''resident student'' if he or she has continuously resided in Indiana for at least 12 consecutive months immediately preceding the first scheduled day of classes of the semester or other session in which the individual registers in the

University, subject to the exception in (c)[1] below.
  (a) The residence of an unemancipated person under 21 years of age follows that of the parents or of a legal guardian who has actual custody of such person or administers the property of such person. In the case of divorce or separation, if either parent meets the residence requirements, such person will be considered a resident.[2]
  (b) If such person comes from another state or country for the predominant purpose of attending the University, he or she shall not be admitted to resident student status upon the basis of the residence of a guardian in fact, except upon appeal to the Standing Committee on Residence in each case.[1]
  (c) Such person may be classified as a resident student without meeting the 12-month residence requirement within Indiana if his or her presence in Indiana results from the establishment by his or her parents of their residence within the state *and* if he or she proves that the move was predominantly for reasons other than to enable such person to become entitled to the status of ''resident student.''[1]
  (d) When it shall appear that the parents of a person properly classified as a ''resident student'' under subparagraph (c) above have removed their residence from Indiana, such person shall then be reclassified to the status of nonresident; provided, that no such reclassification shall be effective until the beginning of a semester next following such removal.
  (e) A person once properly classified as a resident student shall be deemed to remain a resident student so long as remaining continuously enrolled in the University until such person's degree shall have been earned, subject to the provisions of subparagraph (d) above.
3. The foreign citizenship of a person shall not be a factor in determining resident student status if such person has legal capacity to remain permanently in the United States.
4. A person classified as a nonresident student may show that he or she is exempt

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[1] Rules 2(b) and 2(c) apply only to unemancipated persons under 21 years of age.
[2] Invocation of the provision in Rule 2(a) that applies to cases of divorce or separation requires appropriate legal documentation.

from paying the nonresident fee by clear and convincing evidence that he or she has been a resident (see Rule 1 above) of Indiana for the 12 months prior to the first scheduled day of classes of the semester in which his or her fee status is to be changed. Such a student will be allowed to present his or her evidence only after the expiration of 12 months from the Residence Qualifying Date, i.e., the date upon which the student commenced the 12-month period for residence. The following factors will be considered relevant in evaluating a requested change in a student's nonresident status and in evaluating whether his or her physical presence in Indiana is for the predominant purpose of attending a college, university, or other institution of higher education. The existence of one or more of these factors will not require a finding of resident student status, nor shall the non-existence of one or more require a finding of nonresident student status. All factors will be considered in combination, and ordinarily resident student status will not result from the doing of acts which are required or routinely done by sojourners in the state or which are merely auxiliary to the fulfillment of educational purposes.

(a) The residence of a student's parents or guardians.
(b) The situs of the source of the student's income.
(c) To whom a student pays his or her taxes, including property taxes.
(d) The state in which a student's automobile is registered.
(e) The state issuing the student's driver's license.
(f) Where the student is registered to vote.
(g) The marriage of the student to a resident of Indiana.
(h) Ownership of property in Indiana and outside of Indiana.
(i) The residence claimed by the student on loan applications, federal income tax returns, and other documents.
(j) The place of the student's summer employment, attendance at summer school, or vacation.
(k) The student's future plans including committed place of future employment or future studies.
(l) Admission to a licensed profession in Indiana.
(m) Membership in civic, community, and other organizations in Indiana or elsewhere.
(n) All present and intended future connections or contacts outside of Indiana.
(o) The facts and documents pertaining to the person's past and existing status as a student.
(p) Parents' tax returns and other information, particularly when emancipation is claimed.

5. The fact that a person pays taxes and votes in the state does not in itself establish residence, but will be considered as hereinbefore set forth.

6. The Registrar or the person fulfilling those duties on each campus shall classify each student as resident or nonresident and may require proof of all relevant facts. The burden of proof is upon the student making a claim to a resident student status.

7. A Standing Committee on Residence shall be appointed by the President of the University and shall include two students from among such as may be nominated by the student body presidents of one or more of the campuses of the university. If fewer than four are nominated, the President may appoint from among students not nominated.

8. A student who is not satisfied by the determination of the Registrar has the right to lodge a written appeal with the Standing Committee on Residence within 30 days of receipt of written notice of the Registrar's determination, which Committee shall review the appeal in a fair manner and shall afford to the student a personal hearing upon written request. A student may be represented by counsel at such hearing. The Committee shall report its determination to the student in writing. If no appeal is taken within the time provided herein, the decision of the Registrar shall be final and binding.

9. The Standing Committee on Residence is authorized to classify a student as a resident student, though not meeting the specific requirements herein set forth, if such student's situation presents unusual circumstances and the individual classification is within the general scope of these Rules. The decision of the Committee shall be final and shall be deemed equivalent to a decision of the Trustees of Indiana University.

10. A student or prospective student who shall knowingly provide false information or shall refuse to provide or shall conceal information for the purpose of improperly achieving resident student status shall be subject to the full range of penalties, including expulsion, provided for by the University, as well as to such other punishment which may be provided for by law.

11. A student who does not pay additional monies which may be due because of his or her classification as a nonresident student within 30 days after demand, shall thereupon be indefinitely suspended.

12. A student or prospective student who fails to request resident student status within a particular semester or session and to pursue a timely appeal (see Rule 8) to the Standing Committee on Residence shall be deemed to have waived any alleged overpayment of fees for that semester or session.

13. If any provision of these Rules or the application thereof to any person or circumstance is held invalid, the invalidity does not affect other provisions or applications of these Rules which can be given effect without the invalid provision or application, and to this end the provisions of these Rules are severable.

Fees

The instructional fees listed here were approved at the May 2000 meeting of the Trustees of Indiana University. Fees are subject to change by action of the trustees. For up-to-date information about fees in effect at registration time, see the campus *Schedule of Classes*.

Certain courses and programs requiring studios, laboratories, microscopes, computers, or other special equipment may involve special fees in addition to the instructional fee. Applied music, student teaching, and some physical education courses also carry additional fees. See the campus *Schedule of Classes* for a list of such courses and programs.

Fees for Indiana University campuses other than Bloomington and Indianapolis are published in the bulletin of the specific campus.

INSTRUCTIONAL FEES	Indiana Resident	Nonresident
Bloomington Campus		
Undergraduate[1]	$1,951.20 flat fee/semester for 12 to 17 credit hours	$6,479.05 flat fee/ semester for 12 to 17 credit hours
	$121.80/credit hour under 12 or over 17	$404.90/credit hour under 12 or over 17
Graduate and Professional[1]		
Business–M.B.A. Program[2]	$4,674.55/semester	$9,349.10/semester
Business[3]	$292.25/credit hour	$584.70/credit hour
Law	$255.10/credit hour	$654.25/credit hour
Library and Information Science	$178.35	$519.50
Optometry	$206.55/credit hour	$573.55/credit hour
Public and Environmental Affairs— M.P.A. and M.S.E.S. Programs	$204.10/credit hour	$553.35/credit hour
Other	$168.60/credit hour	$491.15/credit hour
Independent Study (Correspondence)	$99.60/credit hour	$99.60/credit hour
Dissertation research (G901)[4]	$150.00/semester	$150.00/semester
Auditing (no credit)	$25.00/credit hour	$25.00/credit hour
Distance Education Special Courses[5] for Schools of Education; and Health, Physical Education, and Recreation: Graduate		
Undergraduate	Same as rate for on-campus instruction in respective category	
Indianapolis Campus		
Undergraduate[1]	$119.00/credit hour	$370.25/credit hour
Graduate and Professional[1]		
Business–M.B.A. Program	$270.00/credit hour	$540.00/credit hour
Business–M.P.A. Program	$200.00/credit hour	$400.00/credit hour
Dentistry	$13,166.00/year	$28,196.00/year
Engineering	$178.25/credit hour	$509.60/credit hour
Law	$246.80/credit hour	$599.40/credit hour
Medicine	$13,908.00/year	$31,847.00/year
Nursing	$163.90/credit hour	$472.85/credit hour
Social Work	$167.00/credit hour	$481.50/credit hour
Master of Accountancy	$200.00/credit hour	$400.00/credit hour
Other	$163.90/credit hour	$472.85/credit hour
Dissertation research (G901)[4]	$100.00/semester	$100.00/semester
Auditing (no credit)	Applicable credit hour rate	Applicable credit hour rate
Distance Education Special Courses for Allied Health Histotechnology: Graduate and Undergraduate	Same as rate for on-campus instruction in respective category	

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[1] Includes credit courses in the School of Continuing Studies.
[2] M.B.A. students enrolled in 9 or more credit hours of business courses will be assessed a flat rate. Enrollment in any courses other than business will be assessed on a per-credit-hour basis.
[3] Graduate business credit hour rates apply to (a) M.B.A. students enrolled in fewer than 9 credit hours of business courses, and (b) students enrolled in a doctoral business program.
[4] To keep their candidacies active, doctoral students with 90 credit hours or more and Master of Fine Arts students with 60 credit hours or more may enroll in G901 for a flat fee of $150. Also, they must have completed all graduate degree requirements except for the dissertation or final project/performance. Enrollment in G901 is limited to six times. Students who do not meet these criteria pay the applicable credit hour rate for dissertation research.
[5] In addition to instructional fee rates, course fees of $90.00 for Education, $75.00 for HPER, and $50.00 for Library and Information Science will be assessed.

INCIDENTAL FEES[6]	Bloomington Campus	Indianapolis Campus
Application for admission		
Domestic, undergraduate	$40.00	$35.00
Domestic, graduate	$45.00	$55.00
International	$45.00	$55.00
Deferment service charge[7]	$24.00	$22.00
Health service fee[8]	$76.50/semester	
	$32.80/summer I	
	$43.70/summer II	
Late payment charge[9]	$10.00-$50.00/month	$11.00/month
Late program change[10]	$21.00/course added or dropped	$19.00/course added
Late registration[11]	$54 to $94/semester	$40.00 to $100.00/ semester
	$54.00/summer session	$40.00 to $65.00/ summer session
Student activity fee[12]	$26.77 or	$24.25 or $44.10/ semester
	$53.55/semester	
	$13.37 or $26.77/summer session	$27.70/semester for Athletic Development
Technology fee, fall or spring semesters[13]		
Undergraduate	$25.00, $50.00, $100.00	$27.85, $55.70, $83.55
Graduate/professional, nondegree students	$12.00, $25.00, $50.00	(varies)
Technology fee, summer sessions[14]		
Undergraduate	$25.00, $50.00	$27.85, $41.75
Graduate/professional, nondegree students	$12.00, $25.00	(varies)
Transcripts	$9.00	$7.00
University Division services fee	$25.00/semester	
Business Undergraduate program fee	$200.00/semester	

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[6] Applicable to both in-state and out-of-state students.
[7] Fee is assessed if deferred billing option is elected.
[8] The health fee is assessed each semester/session on the Bursar's bill for all day and evening students enrolled in more than 3 credit hours. Eligible individuals not covered by the health fee will be seen on a fee-for-service basis.
[9] Any payment due by you to the university that is not received by the due date is subject to a monthly late fee based on a sliding scale of at least $10.00 (for fees of $200.00 to $999.99) and as much as $50.00 (for $5,000.00 or more). The late fee will continue to be assessed monthly until the account is restored to good standing.
[10] After drop/add period (100 percent refund period), students will be assessed $21.00 in Bloomington and $19.00 in Indianapolis for each added course, section change, change of arranged hours, or credit/audit change. On the Bloomington campus, students will also be assessed for each dropped course.
[11] A late registration fee will be assessed any student who does not register during the scheduled registration period. On the Bloomington campus, the fee is $54.00 for students who register by the last Friday before classes begin and increases by $10.00 on the Monday of each successive week to a maximum of $94.00. On the Indianapolis campus, a $40.00 late registration fee is in effect upon conclusion of registration through the end of the first week of classes, increasing by $25.00 the first week, $20.00 the second week, and $15.00 the third week to a maximum of $100.00. In Indianapolis summer sessions, a late registration fee of $40.00 is assessed the first week, and $65.00 the second week and thereafter.
[12] Bloomington students enrolled in 3 or fewer credit hours during the fall and spring semesters pay a mandatory student activity fee of $26.77. Students enrolled in more than 3 credit hours pay $53.55. Summer-session students pay a fee per session according to the number of credit hours in which they are enrolled: 3 or fewer credit hours, $13.37; more than 3 credit hours, $26.77. At Indianapolis, the student activity fee for 1 to 8 credit hours is $24.25 per semester. Students enrolled in 9 or more credit hours pay $44.10 per semester. Indianapolis students are also charged a $27.70 Athletic Development fee each semester.
[13] A technology fee will be assessed according to the number of enrolled credit hours as follows: 3 credit hours or fewer; greater than 3 through 6 credit hours; greater than 6 credit hours.
[14] At Indianapolis, a technology fee is assessed for summer sessions according to the number of enrolled credit hours as follows: 3 or fewer credit hours; greater than 3 credit hours. At Bloomington, summer-session students are assessed half the regular-semester technology fee, based on the number of credit hours as follows: 3 credit hours or fewer; greater than 3 credit hours.

Course Fee Refund Schedule

Time of Withdrawal	Refund
9- through 16-week classes	
During 1st week of classes	100%
During 2nd week of classes	75%
During 3rd week of classes	50%
During 4th week of classes	25%
During 5th week of classes and thereafter	None
5- through 8-week classes	
During 1st week of classes	100%
During 2nd week of classes	50%
During 3rd week of classes and thereafter	None
2- through 4-week classes	
During the 1st and 2nd day of classes	100%
During 3rd and 4th day of classes	50%
During 5th day of classes and thereafter	None

Time of Withdrawal	Refund
1-week (or less) classes	
During 1st day of classes	100%
During 2nd day of classes	50%
During 3rd day of classes and thereafter	None

The refund policy applies to credit hour fees and all course-related fees.

Procedure   See the *Schedule of Classes* for more information about how to withdraw from classes.

Student Financial Assistance   Students can obtain information about financial assistance through the financial aid office, through the student employment office, or through their schools and departments. For courses taken in Bloomington, contact the Office of Student Financial Assistance or Human Resources Management for information about faculty/staff fee courtesy; for courses taken at IUPUI, contact the Office of Student Financial Aid Services.

Veterans Benefits

Eligible students will receive veterans benefits according to the following scale, which is based on the number of credit hours in which the student is enrolled.

Undergraduate Benefits	Bloomington and IUPUI Fall/Spring Semesters[1]	IUPUI Summer I[1]	Bloomington Summer I	Bloomington and IUPUI Summer II[1]
full	12 or more	6	4	6
three-quarters	9-11	4-5	3	4-5
one-half	6-8	3	2	3
tuition only	fewer than 6	1-2	1	1-2
Graduate Benefits				
full	8 or more	4	4	4
three-quarters	6-7	3	3	3
one-half	4-5	2	2	2
tuition only	fewer than 4	1	1	1

It is the responsibility of the veteran or veteran dependent to sign up for benefits each semester or summer session of enrollment. It is also the responsibility of the veteran or veteran dependent on the Bloomington campus to notify the Office of Veterans Affairs of any schedule change that may increase or decrease the amount of benefits allowed. Veterans and veteran dependents on the IUPUI campus should notify the Office of the Registrar.

Veterans with service-connected disabilities may qualify for the Department of Veterans Affairs Vocational Rehabilitation Program. They should contact their regional VA office for eligibility information.

At IUPUI, veterans and veteran dependents must notify their veteran benefit representative in the Office of the Registrar in person at the time of registration.

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[1] Students on the IUPUI campus who are taking Summer I or II classes lasting more than six weeks should check with a VA representative in the Office of the Registrar for positive verification of their benefit status.

Appendix I

Cognate Areas, IUB

Apparel Merchandising and Interior Design

Required:

AMID H168 Introduction to Interior Design (3 cr.)

AMID H271 Interior Design I—Three Dimensional Interior Design (3 cr.)

AMID H272 Interior Design II—Space Design (3 cr.)

AMID H264 Basic AutoCAD for Interior Design (3 cr.)

AMID H394 Advanced Computer Aided Design for Interior Design (3 cr.)

Chemistry

Required:

CHEM C105 Principles of Chemistry I (3 cr.)

CHEM C106 Principles of Chemistry II (3 cr.)

CHEM C341 Organic Chemistry Lecture I (3 cr.)

CHEM C371 Chemical Informatics I (1 cr.)

CHEM C372 Chemical Informatics II (2 cr.)

CHEM C471 Chemical Information Sources and Services (1 cr.)

CHEM C472 Computer Sources for Chemical Informatics (1 cr.)

CHEM C483 Biological Chemistry (3 cr.)

Cognitive Science

Required:

COGS Q240 Philosophical Foundations of the Cognitive and Information Sciences (4 cr.)

COGS Q270 Experiments and Models in Cognition (4 cr.)

COGS Q301 Brain and Cognition (3 cr.)

COGS Q320 Computation in the Cognitive and Information Services (4 cr.)

Computer Science

Option I: Information Technology

CSCI C211 Introduction to Computer Science (4 cr.)

CSCI B351 Introduction to Artificial Intelligence and Computer Simulation (3 cr.)

CSCI A247 Network Technologies and Administration (4 cr.)

CSCI A348 Mastering the World Wide Web (4 cr.)

Option II: Computer Science

Required:

CSCI C211 Introduction to Computer Science (4 cr.)

CSCI C335 Computer Structures (4 cr.)

CSCI C343 Data Structures (4 cr.)

Select one of the following courses:

CSCI A348 Mastering the World Wide Web (4 cr.)

CSCI B351 Introduction to Artificial Intelligence and Computer Simulation (3 cr.)

CSCI C311 Programming Languages (4 cr.)

Communication and Culture

Required:

CMCL C205 Introduction to Communication and Culture (3 cr.)

CMCL C190 Introduction to Media (3 cr.)

CMCL C202 World Media (3 cr.) **or** CMCL C413 Global Villages (3 cr.)

CMCL C337 New Media (3 cr.)

CMCL C410 Media Theory (3 cr.)

Economics

Required:

ECON E201 Introduction to Microeconomics (3 cr.)

ECON E202 Introduction to Macroeconomics (3 cr.)

ECON E321 Intermediate Microeconomic Theory (3 cr.)

ECON E327 Game Theory (3 cr.)

ECON E490 Advanced Undergraduate Seminar—The Information Economy (3 cr.)

E201, E202, and M119 or M211 are prerequisites for E321. E321 is a prerequisite for E327 and E490.

Fine Arts

Courses selected for a cognate must be approved by the School of Fine Arts.

Required:

FINA F102 Fundamental Studio—2D (2 cr.)

FINA N198 Introduction to Photography for Non-majors (3 cr.)

Additional 12 credit hours to include 9 credit hours at the 300–400 level selected from the following:

FINA S250 Graphic Design I (3 cr.) (P: F102)

FINA S351 Graphic Design II (3 cr.) (P: S250)

FINA S352 Production for Graphic Designer (3 cr.) (P: S351)

FINA S451 Graphic Design Problem Solving (1-6 cr.) (P: S352)

FINA T230 Computer Art: Survey and Practice (3 cr.)

FINA T330 Computer Art II: Interactive Media (3 cr.)

FINA T420 Digital Video (3 cr.)

FINA T430 Advanced Multimedia (3 cr.)

FINA T439 Advanced Digital Media Project (3 cr.)

Geography

Option I:

GEOG G237 Cartography and Geographic Information (3 cr.)

GEOG G336 Environmental Remote Sensing (3 cr.)

GEOG G337 Computer Cartography and Graphics (3 cr.)

GEOG G338 Geographic Information Systems (3 cr.)

GEOG G438 Advanced Geographical Information Systems (3 cr.)

GEOG G439 Topics in Geographic Information Science (3 cr.)

Option II:

GEOG G250 Computer Methods in Geography (3 cr.)

GEOG G450 Undergraduate Readings and Research in Geography (1–3 cr.)

GEOG G460 Geography Internship (3–6 cr.)

GEOG G488 Applied Spatial Statistics (3 cr.)

GEOG G489 Atmospheric Data Analysis (3 cr.)

Instructional Systems Technology

Students must have completed 26 hours of course work with a minimum 2.2 GPA. No prerequisite courses are required.

Required:

EDUC R321 Introduction to Instructional Technology (3 cr.)

EDUC R341 Applications of Multimedia (3 cr.)

EDUC R347 Simulations and Gaming (3 cr.)

EDUC R441 Resource Development for Distributed Learning (3 cr.)

EDUC R481 Instructional Design and Evaluation (3 cr.)

Journalism

To be considered for admission, students must file an application with the School of Journalism, be admitted to a degree program in the School of Informatics, and have completed 26 credit hours with a minimum 2.2 cumulative grade point average (FX and WF will be calculated as F) including: J110, Foundations of Journalism and Mass Communications, with a minimum grade of C–.

Required:

JOUR J110 Foundations of Journalism and Mass Communications (3 cr.)

JOUR J200 Reporting, Writing, and Editing I* (3 cr.)

JOUR J201 Reporting, Writing, and Editing II (3 cr.)

JOUR J210 Visual Communications (3 cr.)

Electives: Select at least two courses from the following list:

JOUR J360 Topics (Online Journalism) (3 cr.)

JOUR J460 Topics (Information Graphics) (3 cr.)

JOUR J463 Computerized Publication Design I (3 cr.)

JOUR J465 Computerized Publication Design II (3 cr.)

*I111 Basic Tools of Informatics II, Introduction to Databases must be taken before or concurrently with J200.

Linguistics

At least three courses must be taken at the 300 level or higher, and up to 3 credits from a related field.

Required:

LING L303, Introduction to Linguistic Analysis (3 cr.)

LING L306 Phonetics (3 cr.)

Any two of the following courses:

LING L307 Phonology (3 cr.)

LING L308 Morphology (3 cr.)

LING L310 Syntax (3 cr.)

LING L325 Semantics (3 cr.)

LING L431 Field Methods (3 cr.)

One of the following courses:

LING L445 Introduction to Computational Linguistics (3 cr.)

LING L485 Topics in Linguistics (3 cr.)

MATH M385 Mathematics from Language, or any course from outside the Department of Linguistics with sufficient computational content, subject to approval by the Linguistics Undergraduate Advisor.

Mathematics

Students must complete at least 16 credit hours including MATH M211 and M212, and three of the following:

MATH M301 or M303 Linear Algebra (3 cr.)

MATH M371 Elementary Computational Methods (3 cr.)

MATH M385 Math for Language (3 cr.)

MATH M447 Math Modeling (3 cr.)

Psychology

Required:

PSY P101 Introduction to Psychology (or PSY P151) (3 cr.)

PSY P335 Cognitive Psychology (3 cr.)

PSY P329 Sensation and Perception (3 cr.)

PSY P350 Human Factors/Ergonomics (3 cr.)

COGS Q270 Experiments and Models in Cognition (4 cr.)

COGS Q301 Brain and Cognition (3 cr.)

Public and Environmental Affairs

Prerequisite:

INFO I303 Organizational Informatics (3 cr.) or

SPEA V369 Managing Information Technology (3 cr.)

Required:

SPEA V418 Vector-Based GIS or V450 GIS in Public Management (3 cr.)

SPEA V461 System Analysis and Design (3 cr.)

SPEA V475 Database Management Systems (3 cr.)

In addition students must select a focus area from one of the following:

Option I: Environmental Issues

Required:

SPEA V418 Vector-Based GIS (3 cr.)

Select two courses from the following;

SPEA E325 Computing for Environmental Scientists (2 cr.)

SPEA E363 Environmental Management (E162 recommended prerequisite) (3 cr.)

SPEA E419 Applied Remote Sensing (3 cr.)

SPEA E466 International and Comparative Environmental Policy (3 cr.)

SPEA E476 Environmental Law and Regulation (3 cr.)

Option II: Health Issues

Required:

SPEA H320 Introduction to Health Administration (3 cr.)

At least one of the following:

SPEA H316 Environmental Health (3 cr.)

SPEA H402 Hospital Administration (3 cr.)

SPEA H411 Long-Term Care Administration (3 cr.)

Option III: Urban Affairs

Select two of the following:

SPEA V368 Managing Government Operations (3 cr.)

SPEA V340 Urban Government Administration (3 cr.)

SPEA V372 Government Finance and Budgets (3 cr.)

SPEA V421 Metropolitan Development (3 cr.)

Option IV: Public Policy Analysis

Select two of the following:

SPEA V348 Management Science (3 cr.)

SPEA V386 Case Studies for Policy Analysis (3 cr.)

SPEA V370 Research Methods and Statistical Modeling (3 cr.)

SPEA V401 Finance and Cost Benefit Analysis (3 cr.)

Option V: Public Finance

Required:

SPEA V372 Government Finance and Budgets (3 cr.)

Select one of the following:

SPEA V346 Introduction to Government and Financial Reporting (3 cr.)

SPEA V361 Financial Management (3 cr.)

SPEA V401 Financial and Cost-Benefit Analysis (3 cr.)

SPEA V441 Topics in Financial Management and Policy (3 cr.)

Capstone Experience:

SPEA V461 System Analysis and Design will serve as a capstone experience and should be taken as the last course in the cognate sequence. This is a project-oriented course, in which students select projects related to their focus areas. A SPEA faculty member, with expertise in that particular area, will direct this project.

Telecommunications

Option I: Applications

This cognate area focuses on video and multimedia production using computers.

Required:

TEL T101 Living in the Information Age (3 cr.)

TEL T206 Introduction to Design and Production (3 cr.)

TEL T283 Production Techniques and Practices (3 cr.)

Plus at least 9 credit hours (six courses) from the following:

TEL T352 Video Post Production (1.5 cr.)

TEL T354 Program Graphics and Animation (1.5 cr.)

TEL T355 Digital Video (1.5 cr.)

TEL T361 Interactive Transmedia Design for the Internet (1.5 cr.)

TEL T362 Interactive Transmedia Design with Director (1.5 cr.)

TEL T363 Soundscapes for New Media (1.5 cr.)

TEL T364 Introduction to 3D Digital Modeling and Animation (1.5 cr.)

Option II: Implications

The implications cognate area allows students to tailor their studies to issues of particular interest.

Required:

TEL T101 Living in the Information Age (3 cr.)

TEL T205 Introduction to Telecommunications and Society (3 cr.)

Plus 9 credit hours from the following list:

TEL T311 Media History (3 cr.)

TEL T312 Politics and the Media (3 cr.)

TEL T316 Media Ethics and Professional Responsibility (3 cr.)

TEL T317 Children and the Media (3 cr.)

TEL T424 Telecommunications and the Constitution (3 cr.)

TEL T427 International Telecommunications (3 cr.)

Option III: Foundations

The Foundations cognate area focuses specifically on the development and operation of advanced telecommunications networks.

Required:

TEL T101 Living in the Information Age (3 cr.)

TEL T207 Introduction to Telecommunications Industry and Management (3 cr.)

TEL T322 Telecommunications Networks (3 cr.)

TEL T326 Network Design (3 cr.)

TEL T327 Data Communications (3 cr.)

Cognate Areas, IUPUI

Department of Computer and Information Science

Option I: Applications Support

The student must obtain a Certificate in Applied Computer Science. This must be done in such a way that courses taken as part of the informatics program that are cross-listed with courses in the Department of Computer and Information Science not be counted towards satisfying the requirements of the Certificate.

Required:

CSCI N301 Fundamental Computer Science Concepts (3 cr.)
CSCI N331 Visual Basic Programming (3 cr.)
CSCI N341 Web Programming (3 cr.)

Plus at least 9 credit hours of designated courses in the department selected by the student in consultation with an advisor. The student must maintain a GPA of at least 2.0, with no individual grade in the program below a C.

Option II: Foundations of Computer Science

Required:

CSCI 230 Computing I (4 cr.)
CSCI 240 Computing II (4 cr.)
CSCI 265 Advanced Programming (3 cr.)
CSCI 300 Systems Programming (3 cr.)
CSCI 340 Discrete Computational Structures (3 cr.)

Students must maintain at least a 2.5 GPA in these courses. Mathematics 164 is recommended as preparation for this option. A student choosing this cognate area can earn a minor in computer science with the addition of CSCI 362 Data Structures (3 cr.).

Department of Computer Technology

Students who have completed the core courses in informatics should meet all prerequisites for the first course listed in each cognate area.

Option I: Systems and Database Development

CPT 374 Systems and Database Analysis (4 cr.)

CPT 384 Systems Design (3 cr.)

CPT 479 Database Physical Design and Implementation (3 cr.)

CPT 484 Systems Analysis and Design Project (3 cr.)

CPT 499 Ethics and Leadership (3 cr.)

Option II: Data Communications

CPT 303 Communications Security & Network Controls (3 cr.)

CPT 402 Design and Implementation of Local Area Networks (3 cr.)

CPT 440 Communication Network Design (3 cr.)

CPT 499 Data Communications (4 cr.)

CPT 499 Data Communications Lab (2 cr.)

Option III: Web Technologies

Most of these courses are delivered over the Web.

Prerequisite: CPT 212 Web Site Design or CPT 223 Web Page Design

CPT 215 Web Programming (3 cr.)

CPT 313 Commercial Web Site Development (3 cr.)

CPT 323 Multimedia (3 cr.)

CPT 423 Electronic Commerce (3 cr.)

CPT 490 Senior Project (3 cr.)

Department of Economics

Required:

ECON E201 Introduction to Microeconomics (3 cr.)

ECON E202 Introduction to Macroeconomics (3 cr.)

ECON E321 Intermediate Microeconomic Theory (3 cr.)

ECON E327 Game Theory (3 cr.)

ECON E385 Economics of Industry (3 cr.)

ECON E201 and calculus (M119 or M163) are prerequisites for E321.

English and Technical Communication

Required:

TCM 320 Written Communication in Science and Industry (3 cr.)

TCM 350 Visual Elements of Technical Documents (3 cr.)

ENG G205 Introduction to the English Language (3 cr.)

ENG W315 Composing Computer-Delivered Text (3 cr.)

ENG W365 Theories and Practices of Editing (3 cr.)

Department of Geography

Must complete five of the following courses with a minimum grade of C– in each course; and a minimum average of 2.0 (C) overall.

GEOG G336 Introduction to Remote Sensing and Air Photo Interpretation (3 cr.)

GEOG G337 Computer Cartography and Graphics (3 cr.)

GEOG G338 Introduction to Geographic Information Systems (3 cr.)

GEOG G436 Advanced Remote Sensing: Digital Image Processing (3 cr.)

GEOG G438 Advanced Geographic Information Systems (3 cr.)

GEOG G439 Seminar in Geographic Information Science (3 cr.)

GEOG G488 Spatial Statistics (3 cr.)

G338 is a prerequisite for G438; G336 is a prerequisite for G436; and either G436 or G438 are required for G439.

Additional opportunities to undertake independent research and/or gain internship type experience with this technology and its applications are available through G450 (Independent Research and Readings in Geography, 3 cr.), G460 (Internship in Geography, 1–6 cr.), and G491 (Capstone Experience in Geography, 1 cr.).

Department of Health Science

Required:

AHLT W105 Medical Terminology (1 cr.)

AHLT W3ZZ Health Care Information Systems (3 cr.)

AHLT W3ZZ Information Technology in Health Care Reimbursement (2 cr.)

AHLT M322 Organizational Structure of Health Care Systems (3 cr.)

AHLT W410 Trends and Issues in Health Care (3 cr.)

BIOL N212 Human Biology I (2 cr.)

BIOL N214 Human Biology II (2 cr.)

Department of Mechanical Engineering Technology

Option I: Technical Animation and Spatial Graphics

CGT 116 Geometric Modeling for Visualization and Communication (3 cr.)

CGT 211 Raster Imaging for Computer Graphics (3 cr.)

CGT 241 Introduction to Animation and Spatial Graphics (3 cr.)

CGT 346 Digital Video and Audio (3 cr.)

CGT 441 Advanced Computer Animation (3 cr.)

Option II: Engineering Graphics

CGT 112 Sketching for Visualization and Communication (3 cr.)

CGT 116 Geometric Modeling for Visualization and Communication (3 cr.)

CGT 223 Introduction to Constraint-Based Modeling (3 cr.)

CGT 323 Introduction to 3D Surface Geometry (3 cr.)

CGT 326 Manufacturing Graphics Standards (3 cr.)

CGT 423 Manufacturing Document Production and Management (3 cr.)

New Media

The cognate requires the prerequisites of NEWM N175 Digital Media I and NEWM N180 Digital Media II. Students must receive

a C average in the cognate area and at least a C– in each course.

Option I: Animation

Required:

NEWM N235 Introduction to Computer Simulation/Animation (3 cr.)

NEWM N324 Introduction to Digital Video (3 cr.)

NEWM N335 Computer-Based Character Simulation/Animation II (3 cr.)

NEWM N340 Digital Video Production (3 cr.)

NEWM N435 Computer Simulation/Animation III (3 cr.) **or**

NEWM N440 DV and CGI Special Effects (3 cr.)

Option II: Interactive

Required:

NEWM N204 Introduction to Interactive Media (3 cr.)

NEWM N215 On-Line Document Development I (3 cr.)

NEWM N300 Digital Media Production (3 cr.)

NEWM N304 Interactive Media Application (3 cr.)

NEWM N315 On-Line Document Development II (3 cr.) **or**

NEWM N420 Multimedia Project Development (3 cr.)

Option III: General

Required:

NEWM N200 Desktop Tools for Digital Media (3 cr.)

NEWM N204 Introduction to Interactive Media (3 cr.)

NEWM N250 Team Building in Technology (3 cr.)

NEWM N300 Digital Media Production (3 cr.)

NEWM N420 Multimedia Project Development (3 cr.) or

NEWM N475 Research in Design Methods (3 cr.)

Political Science

The area of concentration in Information and Political Decision Making consists of any five courses (15 cr.) from the following list.

POLS Y205 Elements of Political Analysis (3 cr.)

POLS Y213 Introduction to Public Policy (3 cr.)

POLS Y310 Political Behavior (3 cr.)

POLS Y317 Voting/Elections/Public Opinion (3 cr.)

POLS Y391 Political Decision Making (3 cr.)

POLS Y394 Public Policy Analysis (3 cr.)

Indiana University Bulletins

You may want to explore other schools of Indiana University. The following is a complete list of our bulletins. Please write directly to the individual unit or campus for its bulletin.

Indiana University Bloomington

College of Arts and Sciences
Kelley School of Business[1]
School of Continuing Studies[2]
School of Education[1]
School of Health, Physical Education, and Recreation
School of Informatics[1]
School of Journalism
Division of Labor Studies
School of Law—Bloomington[3]
School of Library and Information Science
School of Music
School of Optometry
School of Public and Environmental Affairs[1]
University Division[4]
University Graduate School

*Indiana University–Purdue University Indianapolis

* School of Allied Health Sciences
* Kelley School of Business[1]
* School of Continuing Studies[2]
* School of Dentistry
  School of Education[1]
  School of Engineering and Technology (Purdue University)
  Herron School of Art
  School of Journalism
* Division of Labor Studies
* School of Law—Indianapolis[3]
  School of Liberal Arts
* School of Medicine
  Military Science Program
* School of Nursing[1]
  School of Physical Education
* School of Public and Environmental Affairs[1]
  School of Science (Purdue University)
* School of Social Work
* University College
  University Graduate School

Indiana University East (Richmond)
Indiana University–Purdue University Fort Wayne
Indiana University Kokomo
Indiana University Northwest (Gary)
Indiana University South Bend
Indiana University Southeast (New Albany)