DEGREE APPLICATION
(New program)

Name of Institution  DeVry University –Merrillville

Program name and Suggested CIP Code: Bachelor of Science in Software Development –CIP Code 14.0903

Level of Degree (AAS, AS, AA, BAS, BA, BS, MBA, MAS, MA, MS, Ph.D.)  BS

Name of Person Preparing this Form  Melissa Robbins

Telephone Number  630-353-3739  Application Type

Date the Form was Prepared  May 2018
(Revise date after any revision)  Revised 2018-08-22

I. PROGRAM OBJECTIVES: Describe what the program is designed to achieve and explain how it is structured in order to accomplish the objectives.

DeVry’s bachelor’s degree program in Software Development provides students with the techniques and tools necessary to systematically create software products used in many applications. Contemporary techniques and tools are applied to meet specified criteria. The knowledge of computing and mathematics appropriate to the development of software products is employed, as well as the professional, ethical, security, and social issues and responsibilities associated with the development and utilization of software systems.

Students who have not chosen an area of specialization may begin the program in “Undeclared” status; however, they must select a track by the time they have earned 60 semester-credit hours toward their degree.

Program Outcomes
The program is designed to produce graduates who are able to:

- Support the successful practice of design, development and testing of software.
- Communicate and collaborate effectively with individuals or teams.
- Exercise critical and systemic thinking and ethical responsibility in finding solutions to professional challenges.
- Contribute to society through a chosen field.
- Continually keep abreast of developments in technology and society.
**Student Outcomes**
Student outcomes are the skills and abilities students are expected to demonstrate at graduation. The Student outcomes for this program include:

- Use contemporary techniques and tools necessary for developing software products.
- Apply computing and mathematics appropriate to development of software products.
- Analyze a problem, apply critical thinking, and identify and define the computing requirements appropriate to the solution.
- Design, implement and evaluate a computer-based system, process, component or program to meet desired needs.
- Function effectively on teams to accomplish a common goal.
- Relate professional, ethical, legal, security and social issues and responsibilities to the development of software products and their application.
- Communicate effectively with a range of audiences.
- Analyze the local and global impact of software technologies on individuals, organizations and society.
- Recognize the need for and engage in continuing professional development.
- Apply workplace goals, processes and metrics with a commitment to quality, timeliness and continuous improvement.
II. **PROGRAM STRUCTURE:** List all courses in the program. Indicate course name, course number, and number of credit hours or clock hours for each course.

<table>
<thead>
<tr>
<th>Name of Program: <strong>Bachelor of Science in Software Development</strong></th>
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</thead>
<tbody>
<tr>
<td>Total Course Hours: <strong>120</strong></td>
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<tr>
<td>Check one: Quarter Hours _____</td>
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<tr>
<td>Semester Hours X _____</td>
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<tr>
<td>Clock Hours _____</td>
</tr>
<tr>
<td>Tuition: <strong>$62,470</strong></td>
</tr>
<tr>
<td>Length of Program: <strong>8 full time semesters</strong></td>
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</table>

**SPECIALTY COURSES:**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Course Hours</th>
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<tbody>
<tr>
<td>CEIS100</td>
<td>Introduction to Engineering Technology &amp; Info Sciences</td>
<td>2</td>
</tr>
<tr>
<td>CEIS114</td>
<td>Operating Systems (3)</td>
<td>3</td>
</tr>
<tr>
<td>CEIS305</td>
<td>Logic and Design (3)</td>
<td>3</td>
</tr>
<tr>
<td>CIS115</td>
<td>Logic and Design (3)</td>
<td>3</td>
</tr>
<tr>
<td>CIS206</td>
<td>Architecture and Operating Systems with Lab (4)</td>
<td>4</td>
</tr>
<tr>
<td>SEC280</td>
<td>Principles of Information Systems Security (3)</td>
<td>3</td>
</tr>
<tr>
<td>CERT302</td>
<td>C++ Certified Programmer Associate Certification Preparation</td>
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<tr>
<td>WEB375</td>
<td>Web Architecture with Lab (4)</td>
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<tr>
<td>NETW202</td>
<td>Introduction to Networking with Lab (3)</td>
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<tr>
<td>NETW203</td>
<td>Cisco Networking Academy – Introduction to Networking with Lab (3)</td>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NETW204</td>
<td>Introduction to Routing with Lab (3)</td>
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<tr>
<td>NETW205</td>
<td>Cisco Networking Academy – Introduction to Routing /Lab Programming and Database Fundamentals</td>
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<tr>
<td>CEIS295</td>
<td>Data Structures and Algorithms (3)</td>
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<tr>
<td>CIS170C</td>
<td>Programming with Lab (4)</td>
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<tr>
<td>CIS247C</td>
<td>Object-Oriented Programming with Lab (4)</td>
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<tr>
<td>CIS321</td>
<td>Structured Analysis and Design (3)</td>
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<tr>
<td>CIS336</td>
<td>Introduction to Database with Lab (4)</td>
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<tr>
<td>CIS339</td>
<td>Object-Oriented Analysis and Design (3)</td>
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<tr>
<td>CIS355A</td>
<td>Business Application Programming with Lab (4)</td>
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<tr>
<td>CEIS392</td>
<td>Senior Project</td>
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<tr>
<td>CEIS494</td>
<td>Senior Project I (1)</td>
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<tr>
<td>CEIS496</td>
<td>Senior Project II (1)</td>
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<tr>
<td>Track – one option is selected</td>
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<tr>
<td><strong>Big Data and Analytics</strong></td>
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<tr>
<td>CEIS330</td>
<td>Strategies for Data Acquisition, Storage and Retrieval (3)</td>
<td>3</td>
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<tr>
<td>CEIS340</td>
<td>Database Management (3)</td>
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<tr>
<td>CEIS480</td>
<td>Data Mining and Analytics (3)</td>
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<tr>
<td>CEIS485</td>
<td>Data Interpretation and Statistical Analysis (3)</td>
<td>3</td>
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<tr>
<td><strong>Software Design and Programming</strong></td>
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<tr>
<td>CEIS200</td>
<td>Software Engineering I (3)</td>
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<tr>
<td>CEIS320</td>
<td>Introduction to Mobile Device Programming (3)</td>
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<tr>
<td>CEIS400</td>
<td>Software Engineering II (3)</td>
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<tr>
<td>CEIS420</td>
<td>Programming Languages and Advanced Techniques (3)</td>
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<tr>
<td><strong>Web and Mobile Application Development</strong></td>
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<tr>
<td>CIS363B</td>
<td>Web Interface Design with Lab (4)</td>
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<tr>
<td>CIS407A</td>
<td>Web Application Development with Lab (4)</td>
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<td>WEB460</td>
<td>Advanced Web Application Development with Lab (4)</td>
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<td>Course Title</td>
<td>Hours</td>
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<tr>
<td>CARD405</td>
<td>Career Development (2)</td>
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<tr>
<td>COLL148</td>
<td>Critical Thinking and Problem-Solving (3)</td>
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<td>ENGL112</td>
<td>Composition (4)</td>
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<tr>
<td>ENGL135</td>
<td>Advanced Composition (4)</td>
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<tr>
<td>ENGL216</td>
<td>Technical Writing (4)</td>
<td>4</td>
</tr>
<tr>
<td>SPCH275</td>
<td>Public Speaking (3)</td>
<td>3</td>
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<tr>
<td>ETHC232</td>
<td>Ethical and Legal Issues in the Professions (3)</td>
<td>3</td>
</tr>
<tr>
<td>LAS432</td>
<td>Technology, Society, and Culture (3)</td>
<td>3</td>
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<tr>
<td>ECON312</td>
<td>Principles of Economics (3)</td>
<td>3</td>
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<tr>
<td>SOCS185</td>
<td>Culture and Society (3)</td>
<td>3</td>
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<tr>
<td>SOCS325</td>
<td>Environmental Sociology (3)</td>
<td>3</td>
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<tr>
<td>MATH114</td>
<td>Algebra for College Students (4)</td>
<td>4</td>
</tr>
<tr>
<td>MATH221</td>
<td>Statistics for Decision-Making (4)</td>
<td>4</td>
</tr>
<tr>
<td>MATH233</td>
<td>Discrete Mathematics (3)</td>
<td>3</td>
</tr>
<tr>
<td>PHYS204</td>
<td>Applied Physics with Lab (4)</td>
<td>4</td>
</tr>
</tbody>
</table>
Number of Credit/Clock Hrs. in Specialty Courses: 70 / Percentage: 58%

Number of Credit/Clock Hrs. in General Courses: 50 / Percentage: 42%

If applicable:
Number of Credit/Clock Hrs. in Liberal Arts: / Percentage: ________
III. **LIBRARY**: Please provide information pertaining to the library located in your institution.

1. **Location of library; Hours of student access; Part-time, full-time librarian/staff:**

All DeVry University campuses are equipped with networked computers allowing student access to the Virtual Library’s full array of electronic resources. The Learning Commons allows students to continue to have a place to study and learn individually or in a group, and receive tutoring support at some locations, while others maintain a separate Academic Support Center for tutoring. The space provides study areas, workspaces, charging stations, and a staffed service desk to assist students.

**Staff and Administration**

The DeVry University Virtual Library is staffed by an experienced team of library professionals each with a Master’s degree from an American Library Association accredited program. They possess a broad range of background and professional expertise.

DeVry’s Librarians are:
- Heather Burke
- Joseph Louderback
- Jason Rossi

These Librarians were hand-picked with a commitment to service and desire to see students succeed. They can be readily reached via Ask-A-Librarian, DeVry’s virtual reference service site at: [http://library.devry.edu/ask-a-librarian.html](http://library.devry.edu/ask-a-librarian.html) for online chat, email, phone, or web-conferencing assistance. They are also available to meet virtually with classes.

**Service hours are:**

<table>
<thead>
<tr>
<th>Monday-Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:00pm - 11:00pm ET</td>
<td>1:00pm - 8:00pm ET</td>
<td>2:00pm - 6:00pm ET</td>
<td>4:00pm - 8:00pm ET</td>
</tr>
</tbody>
</table>
The Virtual Librarians operate remotely and are part of the University’s Academics. They are responsible for:

- Expanding and upgrading electronic resources
- Developing the library collections budget
- Strategic planning
- Consultation and collaboration with the Learning Commons
- Coordinating and maintaining the real-time, interactive digital chat-based reference program
- Developing and delivering a virtual library instruction program supporting the curriculum and information literacy
- Marketing library services to internal stakeholders

2. **Number of volumes of professional material:**

**Library Collections**

**Books**
The DeVry University Virtual Library provides access to approximately 110,000 electronic books. These titles support the institution’s academic programs and are available for use by all DeVry University students and faculty.

All students have immediate access to e-book collections in *Skillsoft Books, Business Plans Handbook, Credo Reference, ebooks by EBSCO, and eBook Central*. These e-books support the needs of students across the curriculum. Ebooks can be accessed 24/7 directly from the library’s website whether the student is on site or at a remote location. Some e-books may also be used by multiple students simultaneously. These resources offer immediate availability, and have search-and-retrieval functions not found in print texts. The Library’s usage statistics show continually growing use of e-books. Beginning in FY2010, DeVry significantly increased the amount of funds allocated to materials in this format.

**Online Resources**
All DeVry University students, faculty, and staff have access to a full array of online databases in support of DeVry’s academic programs including EBSCOhost, which provides access to over 30 academic, business, health sciences, and technology databases. In addition, *LexisNexis, ABI/Inform*, and *Plunkett Research* support the business and management curriculum while IEEE Xplore is used for technology and engineering. These resources provide access to more than 67,000 electronic journals, most of which offer full-text access. All e-resources are available 24/7 from the library’s website, as are tutorials in their use. Library eCollections are developed based on the *Collection Management Policy* developed to support the curricular needs of the University’s five colleges and graduate programs.

A listing of the online resources available to DeVry University students follows this narrative.
Onsite Learning Commons Resources
All DeVry University campuses are equipped with networked computers allowing student access to the Virtual Library’s full array of electronic resources. The Learning Commons allows students to continue to have a place to study and learn individually or in a group, and receive tutoring support at some locations, while others maintain a separate Academic Support Center for tutoring. The space provides study areas, workspaces, charging stations, and a staffed service desk to assist students.

3. **Number of professional periodicals subscribed to:**

All DeVry University students, faculty, and staff have access to a full array of online databases in support of DeVry’s academic programs including EBSCOhost, which provides access to over 30 academic, business, health sciences, and technology databases. In addition, *LexisNexis, ABI/Inform*, and *Plunkett Research* support the business and management curriculum while IEEE Xplore is used for technology and engineering. These resources provide access to more than 67,000 electronic journals, most of which offer full-text access. All e-resources are available 24/7 from the library’s website, as are tutorials in their use.

**List of eResources**

**KEY**

- **Yellow** = Periodical Database
- **Green** = Research Database
- **Blue** = eBook Collection
- **Gray** = Online Learning

The following electronic resources are available 24/7 via the library’s website: library.devry.edu.

**ABI/Inform Global (ProQuest)**
Periodical database containing in-depth coverage of business conditions, management techniques, business trends, management practice and theory, corporate strategy and tactics, and the competitive business landscape worldwide. Also includes The *Wall Street Journal* Eastern edition, 1984 to the present, and profiles for 60,000+ companies and their executives.

**Academic Search Complete (EBSCOhost)**
Scholarly, multi-disciplinary periodical database, covering the sciences, humanities, social sciences, business, health sciences, engineering and technology, containing more than 7,100 full-text periodicals, including more than 6,100 peer-reviewed journals.

**Accounting, Tax and Banking Collection (ProQuest)**
This database contains essential publications for information about the financial services industry
Agricola (EBSCOhost)
Database contains nearly four million citations from the U.S. Department of Agriculture's National Agricultural Library.

Alt HealthWatch (EBSCOhost)
*Alt HealthWatch™* focuses on the many perspectives of complementary, holistic and integrated approaches to health care and wellness. It offers libraries full-text articles for more than 180 international, and often peer-reviewed journals and reports.

In addition, there are hundreds of pamphlets, booklets, special reports, original research and book excerpts. Full-text titles include *American Journal of Chinese Medicine, American Journal of Homeopathic Medicine, California Journal of Oriental Medicine, European Journal of Clinical Hypnosis, Journal of Alternative & Complementary Medicine, Journal of Asian Natural Products Research, Journal of the Australian Traditional-Medicine Society, Journal of the Canadian Chiropractic Association* and many others. *Alt HealthWatch* provides in-depth coverage across the full spectrum of subject areas covered by complementary and alternative medicine.

Arts & Humanities Database (ProQuest)
This database features hundreds of titles covering Art, Architecture, Design, History, Philosophy, Music, Literature, Theatre and Cultural Studies.

Asian & Europe Business Collection (ProQuest)
This database provides information pertinent to the study of business and finance topics across Asia and Europe, including academic journals, newspapers, news wires and magazines.

Australia & New Zealand Database (ProQuest)
This database includes ongoing full-text academic journals published in Australia and New Zealand.

Biography Reference Center (EBSCOhost)
Database containing comprehensive coverage of more than 450,000 biographies, including the complete full-text run of *Biography Today* and *Biography*, as well as thousands of narrative biographies that are not available in other databases.

Biology Database (ProQuest)
Journal and magazine articles on science and biology.

Business Market Research Collection (ProQuest)
This database contains company, industry, economic and geopolitical market research from three sources, including *Hoover's Company Profiles, OxResearch from Oxford Analystica, and Snapshots*.

Business Plans Handbook (Gale Virtual Reference Library)
An eBook collection of actual business plans compiled by entrepreneurs seeking
funding for small businesses throughout North America. The *Handbook* series presents sample plans taken from businesses in the manufacturing, retail and service industries — only the company names and addresses have been changed.

**Business Source Complete (EBSCOhost)**

Scholarly business database, providing the leading collection of bibliographic and full-text content. *Business Source Complete* offers premium content of peer-reviewed, business related journals such as the *Harvard Business Review*. Included as part of the comprehensive coverage offered by this database are indexing and abstracts for the most important scholarly business journals dating back as far as 1886.

**Canadian Business & Current Affairs Database (ProQuest)**

Comprehensive Canadian periodical collection covering multiple subjects and topics, with millions of full-text records.

**Canadian Newstream (ProQuest)**

Full text of over 190 Canadian newspapers from Canada's leading publishers.

**Career & Technical Education Database (ProQuest)**

ProQuest Career & Technical Education is the definitive source for vocational information. The database includes nearly 600 titles, with more than 500 available in full text for quick access to research on virtually any technical topic.

**Computers and Applied Sciences Complete (EBSCOhost)**

Database covering the research and development spectrum of the computing and applied sciences disciplines. It contains collected knowledge on traditional engineering challenges & research, and is a resource for research concerning the business and social implications of new technology.

**Consumer Health Complete (EBSCOhost)**

Covers all areas of health and wellness from mainstream medicine to many perspectives of complementary, holistic, and integrated medicine; also includes relevant drug monographs.

**Continental Europe Database (ProQuest)**

This database includes ongoing full-text academic journals published in certain European countries. The subjects cover major areas of study, including business, science, technology, engineering, social sciences, education, and humanities.

**Credo Reference**

eBook collection of nearly 500 authoritative reference books, dictionaries, encyclopedias and atlases, from more than 70 publishers.

**Criminal Justice Abstracts with Full Text (EBSCOhost)**

*Criminal Justice Abstracts with Full Text™* contains more than 400,000 records selected from the most important sources within the discipline. Subject areas covered
include: criminology; criminal justice; criminal law and procedure; corrections and prisons; police and policing; criminal investigation; forensic sciences and investigation; history of crime; substance abuse and addiction; probation and parole.

**East & South Asia Database (ProQuest)**
This database provides ongoing full-text academic journals that are locally published by scholarly publishing organizations and educational institutions in many East Asian and South Asian countries. Major subject areas of study are represented, including business, science, technology, engineering, social sciences, education, and humanities.

**East Europe, Central Europe Database (ProQuest)**
This database provides ongoing full-text academic journals that are locally published by scholarly publishing organizations and educational institutions in East European and Central European countries. Major subject areas of study are represented, including business, science, technology, engineering, social sciences, education, and humanities.

**ebooks by EBSCO**
Provides access to over 20,000 eBooks on a wide variety of topics.

**EBook Central (ProQuest)**
Full-text e-books covering business, science and technology, social sciences, health and medicine, history, language and literature, and the arts.

**Education Database (ProQuest)**
Education Database supports the study and application of education across all levels of education, including early childhood education, primary and secondary education, and higher education."

**Education Research Complete (EBSCOhost)**
Comprehensive database covering all levels of education from early childhood to higher education, and all educational specialties, such as multilingual education, health education, and testing. Also included in the database are curriculum, instruction, administration, policy, funding, and related social issues.

**ERIC (EBSCOhost)**
*Largest education database in the world*, sponsored by the Institute of Education Sciences (IES) of the U.S. Department of Education. Contains over 1.3 million citations for journal articles, books, research papers, conference papers, technical reports, policy papers, dissertations, theses, and other materials in the field of education.

**Family Health Database (ProQuest)**
This database includes journals and magazines covering an enormous range of health subjects, from sports injuries to women's health, from food and nutrition to midwifery, from eye care to dentistry.

**Global Breaking Newswire (ProQuest)**

Global Breaking Newswires is a library news product which provides timely access to the best newswire content available globally as well as growing archive of news that may not be captured in any of the traditional print sources.

**Greenfile (EBSCOhost)**
Contains more than 375,000 records covering all aspects of human impact to the environment (with full-text for over 4,500 records).

**Health Business Elite (EBSCOhost)**
Database providing comprehensive journal content detailing all aspects of health care administration and other non-clinical aspects of health care institution management.

**Health and Medical Collection (ProQuest)**
This database offers reliable comprehensive journal coverage of clinical and biomedical topics, consumer health, health administration and more.

**Health Management Database (ProQuest)**
This database is a collection of reliable and relevant resources in the field of health administration.

**Health Policy Reference Center (EBSCOhost)**
Database providing information for those interested in the creation, implementation, or study of health policy and the health care system.

**Health Source: Consumer Edition (EBSCOhost)**
Over 75 full-text consumer health magazines on medical science, general health, food science, nutrition, childcare, sports medicine, etc.

**Health Source: Nursing/Academic Edition (EBSCOhost)**
Contains 550 scholarly, full-text journals as well as over 6,000 generic and brand name drug patient education sheets.

**Hospitality and Tourism Complete (EBSCOhost)**
Database covering scholarly research and industry news relating to all areas of hospitality and tourism. Sources are both domestic and international in range and scope, with material collected from countries and regions such as Canada, Australia, Europe and Asia.

**IEEE Xplore**
Provides access to some of the world's most important publications in electrical engineering, computer science and electronics published by IEEE (Institute of Electrical and Electronics Engineers) and its partners.

**India Database (ProQuest)**
ProQuest Indian Journals is a comprehensive, multidisciplinary resource providing full-text, scholarly journals, all published in India. These scholarly sources support many...
academic fields of study, such as business, medicine, science, technology, social sciences and humanities."

**International Newsstream (ProQuest)**
International Newsstream provides the most recent news content outside of the US and Canada.

**Latin America & Liberia Database (ProQuest)**
Full-text academic journals that are locally published by scholarly publishing organizations and educational institutions in many Latin American countries, Spain, and Portugal. Major subject areas of study are represented, including business, science, technology, engineering, social sciences, education, and humanities.

**Library, Information Science & Technology Abstracts with Full-Text (EBSCOhost)**
Database covering librarianship, classification, cataloging, bibliometrics, online information retrieval, information management and more.

**Linguistics Database (ProQuest)**
This database includes full-text journals and other sources in linguistics, including many titles indexed in Linguistics and Language Behavior Abstracts (LLBA). It covers all aspects of the study of language including phonetics, phonology, morphology, syntax and semantics.

**Literary Reference Center Plus (EBSCOhost)**
Comprehensive database providing information on thousands of authors and their works across literary disciplines and timeframes. Includes plot summaries, synopses and work overview, articles/essays of literary criticism, author biographies, literary journals, book reviews and more.

**MasterFILE Premier (EBSCOhost)**
Database covering general reference, business, health, education, general science, multicultural issues and more. Also includes full-text of The New York Times.

**Medline (EBSCOhost)**
Access to more than 1,400 medical journals.

**Middle East & Africa Database (ProQuest)**
Full-text academic journals that are locally published by scholarly publishing organizations and educational institutions in many Middle Eastern and African countries. Major subject areas of study are represented, including business, science, technology, engineering, social sciences, education, and humanities."

**Military & Government Collection (EBSCOhost)**
Access to over 300 full-text periodicals with current news about all branches of the military and government.
Military Database (ProQuest)
The Military Database covers topics across all government and military branches, including international relations, political science, criminology, defense, aeronautics and space flight, communications, civil engineering, and more.

Newspaper Source Plus (EBSCOhost)
Database including more than 700 full-text newspapers, providing more than 31 million full-text articles. Contains comprehensive full text for major newspapers such as New York Times (from January 1985 to present), Boston Globe, Christian Science Monitor, Irish Times (Ireland), San Francisco Chronicle, The Sydney Morning Herald (Australia), The Times (UK), Toronto Star, USA Today, The Washington Post, and The Washington Times (DC).

Nexis Uni (LexisNexis) Academic
Database providing access to news, business and legal publications. News coverage includes backfiles and up-to-the-minute stories including non-English language sources. The Company Dossier module retrieves detailed company information and financial performance measures. Also includes Shephard’s Citations® which provide access to all federal and state court cases dating to 1789.

Open Access Dissertations and Thesis (ProQuest)
Full text of open access dissertations and theses.

Oxford Art Online
Online version of Grove Art Online, Oxford Companion to Western Art, the Concise Dictionary of Art Terms, and Oxford’s Encyclopedia of Aesthetics.

Plunkett Research Online
Research database providing access to business intelligence, industry trends, statistics, market research, sales leads & corporate profiles.

Points of View (EBSCOhost)
Access to full-text essays on more than 250 topics including an overview, point, and counterpoint.

Political Science Database (ProQuest)
Political Science Database gives users access to hundreds of leading political science, public policy, and international relations journals. It also includes thousands of recent full-text doctoral dissertations on political science topics, together with working papers, conference proceedings, country reports, policy papers and other sources.

Professional Development Collection (EBSCOhost)
Database containing information geared towards educators, librarians and education researchers, on topics ranging from children's health and development to cutting-edge pedagogical theory and practice.
**Psychology & Behavioral Sciences Collection (EBSCOhost)**
Psychology database covering topics such as emotional and behavioral characteristics, psychiatry & psychology, mental processes, anthropology, and observational & experimental methods.

**Psychology Database (ProQuest)**
This database provides abstracts and indexing for more than 640 titles, with over 540 titles available in full text. Coverage ranges from behavioral, clinical, cognitive, developmental, experimental, industrial and social psychology, along with personality, psychobiology and psychometrics.

**Public Health Database (ProQuest)**
With journals, news, trade publications, reports and more, ProQuest Public Health covers a wide variety of disciplines ranging from social sciences and biological sciences to business.

**Regional Business News (EBSCOhost)**
Database contains the full text for more than 80 regional US and Canadian business publications (including titles from Crain Communications).

**Religion Database (ProQuest)**
Religion Database provides a wide range of primarily full-text periodicals and other sources for diverse religious and spiritual studies, covering formal theological studies and commentary on topics of general interest from the perspectives of many worldwide religions.

**Science Database (ProQuest)**
This database is a definitive resource for students studying both the applied and general sciences.

**SciTech Connect**
Your connection to science, technology, and engineering research information from the U.S. Department of Energy.

**SkillPort**
On-demand multi-modal learning modules in general business skills, desktop applications, and IT competencies.

**Skillssoft Books**
eBook collection containing thousands of leading professional books from the industry's top authors and publishers; concise summaries of today's foremost business books; live and on demand videos of preeminent thought leaders and business gurus; best practices from leading senior executives of Fortune 5000 companies; and full reports from and summaries of the analyst community.

**Social Science Database (ProQuest)**
Indexing and full text for hundreds of academic journals, providing extensive coverage across a wide range of social science disciplines including anthropology, communication, criminology, economics, education, political science, psychology, social work, and sociology.

**SocINDEX with Full-Text (EBSCOhost)**
Comprehensive sociology research database, containing the full text for more than 820 journals dating back to 1908. Also includes full text for more than 830 books and 14,636 conference papers.

**Sociology Database (ProQuest)**
Covers the international literature of sociology and social work, including relevant titles from related fields such as social policy, social care, social services, social anthropology, gender studies, gerontology, social psychology and population studies."

**SPORTDiscus with Full-Text (EBSCOhost)**
Access to more than 500 full-text journals dating back to 1985 covering sports and sports medicine.

**Teacher Reference Center (EBSCOhost)**
Abstracts for more than 250 teacher and administrator periodicals.

**Turkey Database (ProQuest)**
This database includes ongoing full-text academic journals that are locally published in Turkey. The subjects cover major areas of study, including business, science, technology, engineering, social sciences, education, and humanities.

**UK & Ireland Database (ProQuest)**
Ongoing full-text academic journals published in the United Kingdom and the Republic of Ireland. The subjects cover major areas of study, including business, science, technology, engineering, social sciences, education, and humanities.

**US Newsstream (ProQuest)**
US Newsstream enables users to search the most recent premium U.S. news content, as well as archives which stretch back into the 1980s featuring newspapers, newswires, blogs, and news sites in active full-text format.

**Vocational & Career Collection (EBSCOhost)**
Database providing full-text coverage to more than 340 trade and industry related periodicals including *Pediatric Nursing, Wireless Week, Drug Store News, Reeves Journal, Hotel & Motel Management, Restaurant Business, Advertising Age*, and more.
4. **Other library facilities in close geographical proximity for student access:**

DeVry University recognizes that today’s working adult students have complex, time-constrained lifestyles and have come to depend heavily on electronically accessed resources, and that there is a rapidly increasing amount of information available to them electronically. To support all undergraduate and graduate students, DeVry University employs full-time professional library staff to develop resources, deliver reference services, provide information literacy instruction, promote the library to stakeholders, and recommend additional resources that best meet the curricular and research needs of students and faculty.

DeVry University has a Virtual Library that hosts a robust online collection with learning resources and information services to support all of the institution’s programs and degrees. With an almost entirely digital collection, all students and professors have equal access to the array of library resources. This reflects national trends in academic libraries. Online access is available from workstations at the campuses including the Learning Commons as well as on laptops, tablets, and handheld devices.
IV. **FACULTY:** Attach completed Instructor’s Qualification Record for each instructor. **Include all required documentation** pertaining to the qualifications of each instructor.

| Total # of Faculty in the Program: | 1 | Full-time: | 1 | Part-time: | 0 |

Fill out form below: (PLEASE LIST NAMES IN **ALPHABETICAL ORDER**.)

<table>
<thead>
<tr>
<th>List Faculty Names (Alphabetical Order)</th>
<th>Degree or Diploma Earned</th>
<th># Years of Working Experience in Specialty</th>
<th># Years Teaching at Your School</th>
<th># Years Teaching at Other</th>
<th>Check one:</th>
</tr>
</thead>
<tbody>
<tr>
<td>James Gajda</td>
<td>MBA, MS, BA, CPA</td>
<td>9</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Indiana Commission for Higher Education
Indiana Board for Proprietary Education

2018-02-23
Institution: DeVry University
Degree Program: Bachelor of Science in Software Development
Locations: Merrillville

State Licensure
Does a graduate of this program need to be licensed by the State to practice their profession in Indiana and if so, will this program prepare them for licensure?

No, the Bachelor of Science in Software Development does not prepare a graduate of this program to be licensed.

If so, please identify N/A
The specific license(s) needed: N/A
The State agency issuing the license(s): N/A

Professional Certification
What are the professional certifications that exist for graduates of similar program(s)?

Students graduating from similar programs would be likely to be prepared for many of the following:

- CompTIA A+
- Oracle Certified Professional Java SE Programmer
- Microsoft’s MCTS: Web Applications Development with Microsoft.NET Framework 4
- Microsoft Certified Solutions Developer (MCSD)
- Objective-C Certification
- Cisco Networking Certifications
- IT fundamentals offered by CompTIA or Cisco or Microsoft
- Cisco IoT Certification
- Windows/Linux OS Certifications
- AWS Certified Developer – Associate Level

Will a graduate of this program be prepared to obtain national professional certification(s) in order to find employment, or to have substantially better prospects for employment, in a related job in Indiana?

Blocks of the curriculum are designed and aligned to the learning domains of many technical certifications. Students taking the BSSD coursework will be studying material that will help prepare them for certification if they choose to pursue it. CERT302 is a professional development course that provides an opportunity for students to take practice exams related to some of the programming certification opportunities.
CERT302 – C++ Certified Programmer Associate Certification Preparation

If so, please identify
Each specific professional certification: Please see below.
The national organization issuing each certification: Please see below.

Please explain the rational for choosing each professional certification:

- CompTIA A+
- Cisco Certified Entry Networking Technician (CCENT)
- Cisco CCNA Routing and Switching
- C++ Certified Associate Programmer (CPA) is a professional certificate
- Cisco CCNA Cloud
- EC Council Certified Network Defender (CND) certification
- Microsoft’s MCTS: Web Applications Development with Microsoft.NET Framework 4
- Microsoft Certified Solutions Developer (MCDS)

Cisco options were chosen since DeVry University is part of the Cisco Network Academy which gives us access and opportunity to use material directly from Cisco to help prepare students for the field. This content is updated regularly, and DeVry faculty are certified to teach the content.

EC Council is another partnership established that allows DeVry to use their content directly.

C++ Institute, Microsoft and CompTIA are widely recognized organization, and many book publishers have content for universities to use that align to their professional certifications. These are referenced in the development of the curriculum.

Please identify the single course or a sequence of courses that lead to each professional certification?

<table>
<thead>
<tr>
<th>COURSE WORK</th>
<th>POTENTIAL CERTIFICATIONS CURRICULUM PREPARES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technology Foundations</strong></td>
<td></td>
</tr>
<tr>
<td>CEIS100</td>
<td>Introduction to Engineering Technology and Information Sciences</td>
</tr>
<tr>
<td>ECT114</td>
<td>Digital Systems with Lab</td>
</tr>
<tr>
<td>CIS115</td>
<td>Logic and Design</td>
</tr>
<tr>
<td>CIS206</td>
<td>Architecture and Operating Systems with Lab</td>
</tr>
<tr>
<td>NEWT202/3</td>
<td>Introduction to Networking with Lab</td>
</tr>
<tr>
<td>NETW204/5</td>
<td>Introduction to Routing with Lab</td>
</tr>
<tr>
<td>SEC280</td>
<td>Principles of Information Systems Security</td>
</tr>
<tr>
<td></td>
<td>These courses prepare students for the following certification options</td>
</tr>
</tbody>
</table>

| **Information Systems and Programming** | |
| CIS170C | Programming with Lab |
| CIS247C | Object-Oriented Programming with Lab |

<p>| <strong>Application Development</strong> | |
|                           | C++ Certified Associate Programmer (CPA) |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEIS295</td>
<td>Data Structures and Algorithms</td>
<td></td>
</tr>
<tr>
<td>CIS321</td>
<td>Structured Analysis and Design</td>
<td></td>
</tr>
<tr>
<td>CIS339</td>
<td>Object-Oriented Analysis and Design</td>
<td>Oracle Certified Professional Java SE Programmer Objective-C certification</td>
</tr>
<tr>
<td>CIS355A</td>
<td>Business Application Programming with Lab</td>
<td></td>
</tr>
<tr>
<td>WEB375</td>
<td>Web Architecture with Lab</td>
<td></td>
</tr>
</tbody>
</table>

**Information Technology and Networking**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEIS305</td>
<td>Operating Systems</td>
</tr>
</tbody>
</table>
**Professional Industry Standards/Best Practices**

Does the program curriculum incorporate professional industry standard(s) and/or best practice(s)?

Yes, the Bachelor of Science in Software Development, does incorporate professional industry standards and/or best practices.

**If so, please identify**  
The specific professional industry standard(s) and/or best practice(s):

- As stated above, program content in the curriculum is aligned to learning domains found in many certification examinations.
- The curriculum has been designed to satisfy the criteria for programmatic accreditation by ABET Inc.
- Tools and software used in the industry are deployed in the curriculum.

**The organization or agency, from which the professional industry standard(s) and/or best practice(s) emanate:**

- Curriculum design meets programmatic accreditation standards governed by the Computing Accreditation Commission of ABET Inc.
- Curriculum is aligned to industry certification domains and leverages content directly from the following sources:
  
  EC Council, Cisco, CompTIA, C+ Institute (also discussed above), Microsoft, Oracle
Program Accreditation
Does this program need specialized accreditation in order for a graduate to become licensed by the State or to earn a national professional certification, so graduates of this program can work in their profession or have substantially better prospects for employment?

If so, please identify the specialized accrediting agency:

No, the Bachelor of Science in Software Development does not need specialized accreditation.

Transferability of Associate of Science Degrees
Since CHE/BPE policy reserves the Associate of Science designation for associate degrees whose credits apply toward meeting the requirements of a related baccalaureate degree, please answer the following questions:

Does a graduate of this A.S. degree program have the option to apply all or almost all of the credits to a related baccalaureate degree at your institution? N/A

If so, please list the baccalaureate degree(s): N/A

Job Titles
List specific job titles and broad job categories that would be appropriate for a graduate of this program:

Graduates of the Bachelor of Science in Software Development program may consider careers including, but not limited to the following: Software Developers, Software Applications, System Software, and Computer Occupations.

1. What is the digital format of student transcripts? Secure PDF
2. Is the institution using proprietary software, if so what is the name? Yes, Parchment to gather requests and deliver transcripts. EVisions (Form Fusion) to format transcripts and we use Banner to store student data.
3. Submit a sample student transcript. See Attached.
Student Records

Institutions that have Previously Operated

   - If not what is the percentage of student transcripts in a digital format? N/A.
   - What is the beginning year of digitized student transcripts? 1982.
   - Are student transcripts stored separately from the overall student records? No.

2. How are the digital student records stored? Student records are stored in Banner.
   - Where is the computer server located? The servers are located in the IES DC1 data center in Oak Brook, Illinois.
   - What is the name of the system that stores the digital records? Banner.

3. Where are the paper student records located? Records from prior to 1982 are stored in-house in Illinois on cardstock or microfiche.

4. What is the beginning year of the institutional student record series? 1931.

5. What is the estimated number of digital student records held by the institution? Over 200,000 records.

6. What is the estimated number of paper student records held by the institution? Approximately 25,000 - 40,000.

7. Aside from digital and paper, does the institution maintain student records in other formats such as microfiche? Yes.
   - If so, what is the most significant format? Microfiche.
   - If so, what is the estimated number of student records maintained in that format? Approximately 15,000+.

8. Does the institution maintain a staff position that has overall responsibility and authority over student records? Yes.
9. Has the institution contracted with a third party vendor such as Parchment to have student records digitized, maintained, and serviced? Yes, we have used Parchment since 2015.

10. Approximately what is the average number of requests for student records or verification of attendance does the institution receive in a day and week? Approximately 40 per day/200 per week.

11. Is there anything that the Commission should consider with regard to the institutional student records? No.
## Projected Headcount and FTE Enrollments and Degrees Conferred

**Date, May 2018**

**Institution/Location:** DeVry University - Merrillville  
**Program:** Bachelor of Science in Software Development

<table>
<thead>
<tr>
<th>Year</th>
<th>FY2018</th>
<th>FY2019</th>
<th>FY2020</th>
<th>FY2021</th>
<th>FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enrollment Projections (Headcount)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-Time</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Part-Time</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

| **Enrollment Projections (FTE*)** |        |        |        |        |        |
| Full-Time | 2      | 2      | 2      | 2      | 2      |
| Part-Time | 1      | 1      | 1      | 1      | 1      |
| **Total** | 3      | 3      | 3      | 3      | 3      |

| **Degrees Conferred Projections** | 0      | 0      | 0      | 2      | 2      |

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2018-02-23