2013–2014 Bachelor of Science Digital Sciences

**UNIVERSITY REQUIREMENT (1 credit hour)**

US 10097 Destination Kent State: First Year Experience (1)

*Not required of students age 21+ at time of admission or transfer students with 25 credits (excluding PSEOP or dual credit)*

**WRITING-INTENSIVE COURSE REQUIREMENT**

Students must complete one writing-intensive course at Kent State with a minimum C grade. See the University Catalog (www.kent.edu/catalog) for course listing.

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**KENT CORE (36 credit hours)**

See the University Catalog (www.kent.edu/catalog) for information on transfer credit, proficiency testing and other options to meet the Kent Core. None of the courses on the Kent Core list may be taken pass/fail.

**LEGEND:** TM – Ohio Transfer Module; G – Global Diversity; D – Domestic Diversity; LAB – Laboratory Course

<table>
<thead>
<tr>
<th>COMPOSITION (6 credit hours)</th>
<th>TM ENG 11011 College Writing I (3) OR ENG 11022 College Writing – Stretch (3) ENG 21011 College Writing II (H) HONR 10197 Freshman Honors Colloquium I (1-4) HONR 10297 Freshman Honors Colloquium II (1-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATHEMATICS AND CRITICAL REASONING (3 credit hours)</td>
<td>CS 10051 Introduction to Computer Science (4) MATH 11008 Explorations in Modern Mathematics (3) MATH 11009 Modeling Algebra (4)</td>
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<tr>
<td>TM</td>
<td>MATH 11110 Algebra for Calculus (3) MATH 11112 Intuitive Calculus (3) MATH 11022 Trigonometry (3) MATH 12001 Algebra and Trigonometry (5) MATH 12002 Analytic Geometry and Calculus I (5) MATH 12011 Calculus with Precalculus I (3)</td>
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<tr>
<td>TM</td>
<td>MATH 12012 Calculus with Precalculus II (3) MATH 14001 Basic Mathematical Concepts I (4) MATH 14002 Basic Mathematical Concepts II (4)</td>
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<tr>
<td>TM PHIL 21002 Introduction to Formal Logic (3)</td>
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<tr>
<td>HUMANITIES AND FINE ARTS (9 credit hours)</td>
<td>Minimum one course must be selected from the Humanities in Arts and Sciences area, and minimum one course must be selected from Fine Arts.</td>
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<tr>
<td>TM</td>
<td>CLAS 21404 The Greek Achievement (3) CLAS 21405 The Roman Achievement (3) ENG 21045 Introduction to Shakespeare (3) ENG 22071 Great Books to 1700 (3) ENG 22072 Great Books Since 1700 (3) ENG 22073 Major Modern Writers: British and United States (3)</td>
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<tr>
<td>TM</td>
<td>HIST 11050 World History: Ancient and Medieval (3) HIST 11051 World History: Modern (3)</td>
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<tr>
<td>TM</td>
<td>HIST 12070 History of the United States: The Formative Period (3) HIST 12071 History of the United States: The Modern Period (3)</td>
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<td>TM</td>
<td>PAS 23001 Black Experience I: Beginnings to 1865 (3) PAS 23002 Black Experience II: 1865 to Present (3)</td>
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<tr>
<td>TM</td>
<td>PHIL 11001 Introduction to Philosophy (3) PHIL 21001 Introduction to Ethics (3)</td>
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<td>TM</td>
<td>PHIL 21020 Comparative Religious Thought I (3)</td>
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<tr>
<td>TM</td>
<td>PHIL 21021 Comparative Religious Thought II (3) Humanities in Communication and Information</td>
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<tr>
<td>TM</td>
<td>COMM 26000 Criticism of Public Discourse (3)</td>
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<tr>
<td>TM</td>
<td>ARCH 10001 Understanding Architecture (3) ARCH 10011 Survey of Architectural History I (3)</td>
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<tr>
<td>TM</td>
<td>ARCH 10012 Survey of Architectural History II (3) ARTH 12001 Art as a World Phenomenon (3)</td>
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<tr>
<td>TM</td>
<td>ARTH 22006 Art History I: Ancient and Medieval Art (3) ARTH 22007 Art History II: Renaissance to Modern Art (3)</td>
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<tr>
<td>TM</td>
<td>ARTH 22020 Art of Africa, Oceania and the Americas (3) DAN 27076 Dance as an Art Form (3) MUS 22111 The Understanding of Music (3) MUS 22121 Music as a World Phenomenon (3) THEA 11000 The Art of the Theatre (3)</td>
</tr>
</tbody>
</table>

**ADDITIONAL (6 credit hours) Select courses from the Kent Core.** Any of the following courses may also be selected:

| COMM 15000 Introduction to Human Communication (3) HONR 13597 Colloquium: The Western Identity (3) PHIL 11009 Principles of Thinking (3) |

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**SOCIAL SCIENCES (6 credit hours)**

Courses must be selected from two curricular areas.

| TM | ANTH 18210 Introduction to Cultural Anthropology (3) ANTH 18420 Introduction to Archaeology (3) CACM 11001 Introduction to Conflict Management (3) |
| TM | ECON 22060 Principles of Microeconomics (3) ECON 22061 Principles of Macroeconomics (3) GEOG 10160 Introduction to Geography (3) |
| TM | GEOG 17063 World Geography (3) GEOG 17064 Geography of the United States and Canada (3) |
| TM | GEOG 22061 Human Geography (3) GERO 14029 Introduction to Gerontology (3) JMC 20001 Media, Power and Culture (3) |
| TM | JUS 26704 Issues in Law and Society (3) POL 10004 American Politics (3) POL 10500 World Politics (3) |
| TM | PSYC 11762 General Psychology (3) PSYC 20651 Child Psychology (3) PSYC 21211 Psychology of Adjustment (3) |
| TM | PSYC 22221 Multicultural Psychology (3) SOC 12050 Introduction to Sociology (3) SOC 22778 Social Problems (3) |

**BASIC SCIENCES (6-7 credit hours)**

Minimum one laboratory course (marked "LAB") must be selected. Beginning “major sequences” courses in athletic training (ATTR 25057, 25058), biological sciences (BSCI 10110, 10120, 11010, 11020), chemistry (CHEM 10080, 10061, 10062, 10063, 10960, 10961), exercise science (EXSC 25057, 25058) and physics (PHY 12201, 12202, 23101, 23102) may be selected for those courses listed below.

| TM | ANTH 18630 Human Evolution (3) ANTH 18631 Issues in Human Evolution (1) |
| TM | BSCI 10001 Human Biology (3) BSCI 10002 Life on Planet Earth (3) |
| TM | BSCI 10003 Lab Experience in Biology (1) BSCI 10001/10002 |
| TM | BSCI 20020 Biological Structure and Function (5) CHEM 10030 Chemistry in Our World (3) CHEM 10031 Chemistry in Our World Laboratory (1) Pre/corequisite 10030 |
| TM | CHEM 10050 Fundamentals of Chemistry (3) CHEM 10052 Introduction to Organic Chemistry (2) CHEM 10053 Inorganic and Organic Laboratory (1) Corequisite 10052 |
| TM | CHEM 10054 General and Elementary Organic Chemistry (5) GEOG 21062 Physical Geography (3) GEOG 21063 Physical Geography Laboratory (1) Pre/corequisite 21062 |
| TM | GEOL 11040 Earth Dynamics (3) GEOL 11041 Earth Dynamics Laboratory (1) Pre/corequisite 11040 |
| TM | GEOL 11042 Earth History (3) GEOL 11043 Earth History Laboratory (1) Pre/corequisite 11042 |
| TM | GEOL 21062 Environmental Geology (3) GEOL 21080 Oceanography (3) NUTR 2351 Science of Human Nutrition (3) |
| TM | PHY 11030 Seven Ideas that Shook the Universe (3) PHY 13001 General College Physics I (4) |
| TM | PHY 13002 General College Physics II (4) PHY 13011 College Physics I (2) PHY 13012 College Physics II (2) |
| TM | PHY 21040 Physics in Entertainment and the Arts (3) PHY 21041 Physics in Entertainment and the Arts Laboratory (1) Pre/corequisite 21040 |
| TM | PHY 21430 Frontiers in Astronomy (3) PHY 21431 Frontiers in Astronomy Laboratory (1) Pre/corequisite 21430 |

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**DIVERSITY REQUIREMENT**

Students must complete two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. At least one course must be taken from the Kent Core, marked above as global ("G") or domestic ("D"). This course may count both as diversity and Kent Core. See the University Catalog (www.kent.edu/catalog) for course listing.

**EXPERIENTIAL LEARNING REQUIREMENT**

Students must complete an experiential learning activity at Kent State, either as a designated course or as a non-credit, non-course experience approved by the appropriate faculty member. Courses with numbers ending in 92, 98, 99 or having “student teaching” in title also fulfill this requirement. See the University Catalog (www.kent.edu/catalog) for course listing.

Revised 3 March 2013
7. DIGITAL SCIENCES PROGRAM REQUIREMENTS (39 hours):

- DSCI 10010 Society, Culture & the Digital Sciences 3
- DSCI 10410 Information Ethics & Social Responsibility 3
- DSCI 13210 Design Processes and Principles 3
- DSCI 34410 Digital Info Management Processing 3
- DSCI 40910 Capstone in Digital Sciences 3
- DSCI 41510# Global Project Mgmt. & Team Dynamics 3
- DSCI 41610 Digital Systems Security 3
- MIS 24053 Intro to Computer Applications 3
- MIS 24065# Web Programming 3
- TECH4611 Requirements Engineering & Analysis 3

Advisor-Approved Electives (9 hours)

8. CONCENTRATIONS (24-29 hours)

Students are to select ONE Digital Sciences concentration from below:

- **Cognition and Communication (27 hours):**
  - DSCI 15310 Computational Thinking and Prog. 3
  - DSCI 23410 Cognition in Technology 3
  - DSCI 33310 Human-Computer Interaction 3
  - ITEC 47413 Digital Video in Education 3
  - ITEC 47427 Technology and Learning 3
  - MIS 44043 Database Management Systems 3
  - PSYC 11762# General Psychology 3
  - PSYC 34045 Cognitive Psychology 3
  - VCD 14001 Visual Design Literacy 3

- **Digital Systems Analysis (27 hours):**
  - DSCI 10310 My Story on the Web 3
  - DSCI 15310 Computational Thinking and Prog. 3
  - DSCI 31010 Enterprise Architecture 3
  - DSCI 33310 Human-Computer Interaction 3
  - MIS 34068 Systems Analysis and Design 3
  - MIS 34161 Managerial & Tech. Aspects of Healthcare Systems Management 3
  - MIS 44043 Database Management Systems 3
  - MIS 44045 Information Systems Management 3

- **Digital Systems Management and Consulting (27 hours):**
  - Required (12 hours):
    - DSCI 15310 Computational Thinking and Prog. 3
    - DSCI 23410 Cognition in Technology 3
    - DSCI 26010 Telecommunication Infrastructure 3
    - DSCI 31010 Enterprise Architecture 3
    - MIS 34161 Managerial & Tech. Aspects of Healthcare Systems Management 3
    - MIS 44043 Database Management Systems 3
    - MIS 44045 Information Systems Management 3
    - MIS 44062 Supply Chain Management 3

- **Digital Systems Software Development (29 hours):**
  - CS 13001 Computer Science I: Programming & Problem Solving 4
  - CS 23001 Computer Science II: Data Structures & Abstraction 4
  - CS 32022 Discrete Structures of Computer Sci. 3
  - CS 33007 Intro. To Database System Design 3
  - CS 33901 Software Engineering 3
  - DSCI 10310 My Story on the Web 3
  - DSCI 31010 Enterprise Architecture 3
  - DSCI 33310 Human-Computer Interaction 3

- **Digital Systems Telecommunication Networks (27 hours):**
  - DSCI 10310 My Story on the Web 3
  - DSCI 15310 Computational Thinking and Prog. 3
  - DSCI 26010 Telecommunication Infrastructure 3
  - MIS 44043 Database Management Systems 3
  - TECH 26301 Networking Hardware I 3
  - TECH 36302 Networking Hardware II 3
  - TECH 46312 Wireless Network & Telecom. Syst. 3
  - TECH 46330 Visual Basic Prog. & Engineering Tech.3
  - TECH 46350 Network Mgmt. & Design Technology 3

- **Enterprise Architecture (29 hours):**
  - CS 13001 Computer Science I: Programming & Problem Solving 4
  - CS 23001 Computer Science II: Data Structures & Abstraction 4
  - CS 23022 Discrete Structures of Computer Sci. 3
  - CS 33007 Intro. To Database System Design 3
  - DSCI 10310 My Story on the Web 3
  - DSCI 26010 Telecommunication Infrastructure 3
  - DSCI 31010 Enterprise Architecture 3
  - DSCI 33310 Human-Computer Interaction 3

- **Digital Science - No Concentration (27 hours):**
  - DSCI 15310 Computational Thinking and Prog. 3
  - MIS 44043 Database Management Systems 3

Advisor-Approved DSCI Electives (9 hours)

9. GENERAL ELECTIVES (11-21 hours)

10. EXPERIENTIAL LEARNING REQUIREMENT

Students are required to complete an Experiential Learning Requirement. Students should speak with their advisor for more information.

NOTES:
- A minimum of 39 upper division hours is required for graduation.
- A minimum of 121 semester hours is required to graduate.
- A minimum of 2.00 overall cumulative GPA is required to graduate.
- A minimum of 2.00 major GPA is required to graduate.
- No more than 12 hours of coursework may be taken pass/fail and only one class per semester; ONLY General Elective coursework may be taken pass/fail. None of the courses on the LER list may be taken pass/fail. See the “Pass/Fail Policy” in Undergraduate Catalog.
- A grade of C (2.00) or better is required in the Writing Intensive course to graduate – DSCI 31510 Global Proj. Mgmt. & Team Dynamics.
- Diversity Requirement: One course must be with a Domestic (D) focus and one course with a Global (G) focus in the Kent Core.
- An Experiential Learning Requirement is required for graduation.
- # - Can count as both Kent Core and concentration requirement.
- $ Prerequisite needed
- Grade of C or better in MATH11009 or MATH 11010 is required for most CS courses.