INFORMATION TECHNOLOGY DESIGN AND DATABASE (ITD)

ITD 110 Web Page Design I (3 CR.)
Stresses a working knowledge of Web site designs, construction, and management using HTML or XHTML. Course content includes headings, lists, links, images, image maps, tables, forms, and frames. Lecture 3 hours per week.
Credit for Prior Learning available for this course. More information at https://www.nvcc.edu/admissions/cpl.html.

ITD 132 Structured Query Language (3 CR.)
Incorporates a working introduction to commands, functions and operators used in SQL for extracting data from standard databases. Lecture 3 hours per week.

ITD 134 PL/SQL Programming (3 CR.)
Presents a working introduction to PL/SQL programming within the Oracle RDBMS environment. Course content includes PL/SQL fundamentals of block program structure, variables, cursors and exceptions, and creation of program units of procedures, functions, triggers and packages. Lecture 3 hours per week.
Prerequisite(s) ITD 132

ITD 140 Machine Learning I (3 CR.)
Introduces students to artificial intelligence and machine learning. Examines basic theory, algorithms, and applications. Focuses on feature engineering and machine learning applications within the larger world of artificial intelligence. Part I of II. Lecture 3 hours per week.

ITD 145 Applied Data Science Techniques (3 CR.)
Reviews the fundamentals of descriptive and inferential statistics, probability, and distributions, as well as basic dataset manipulation and plotting techniques. Focuses on application to real datasets using graphical user interface (GUI) software tools as well as Python. Lecture 3 hours per week.
Credit for Prior Learning available for this course. More information at https://www.nvcc.edu/admissions/cpl.html.

ITD 195 Topics in (1-5 CR.)
Exploration of topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.

ITD 210 Web Page Design II (3 CR.)
Incorporates advanced techniques in Web site planning, design, usability, accessibility, advanced site management, and maintenance utilizing Web editor software(s). Lecture 3 hours per week.
Prerequisite(s) ITD 110

ITD 240 Machine Learning II (3 CR.)
Examines theory, algorithms, applications, and issues within the subfield of pattern recognition and machine learning, including feature engineering and extraction, supervised and unsupervised learning. Focuses on theory and practice, with coverage of underlying mathematical and heuristic concepts. Part II of II. Lecture 3 hours per week.
Prerequisite(s) ITD 140 or division approval

ITD 245 Advanced Applied Data Science Techniques (3 CR.)
Surveys Big Data and data analytics, including demonstrations and applications of widely used tools and methods. Offers practice in data extraction and visualization. Lecture 3 hours per week.
Prerequisite(s) ITD 145 and recommended: ITP 150
Credit for Prior Learning available for this course. More information at https://www.nvcc.edu/admissions/cpl.html.

ITD 256 Advanced Database Management (3 CR.)
Focuses in-depth instruction in the handling of critical tasks of planning and implementing large databases. Course content includes an introduction to concepts of advanced data warehousing and database configuration. Lecture 3 hours per week.
Prerequisite(s) ITE 152
Credit for Prior Learning available for this course. More information at https://www.nvcc.edu/admissions/cpl.html.

ITD 260 Data Modeling and Design (3 CR.)
Introduces life cycle application development methodologies in a systematic approach to developing relational databases and designing applications. Presents content introducing functional and business process modeling, using modeling information to produce application designs, analyzing data requirements as entities, attributes, and relationships and map an entity relationship diagram to an initial database design. Identifies the available automated development tools and utilizes Oracle Developer software to perform practical applications of these concepts. Prerequisite: Oracle or SQL programming including DDL, DML, transaction control & queries with SELECT statement and some exposure to procedural language programming. Lecture 3 hours per week.
Prerequisite(s) ITE 152

ITD 295 Topics In: (1-5 CR.)
Exploration of topical areas of interest to or needed by students. May be used also for special honors courses. May be repeated for credit. Variable hours.