



## DAT-102: Intro to data analytics

Syllabus | Spring 2020 | Sec: NC71

Tuesdays 6:00 - 9:10pm

instructor:	<b>Eric C. Darsow</b> CCAC North/West computer department Faculty Instructor
office Hours:	<b>North: Weds 5-6pm</b> (directly before class) in North1128
semester:	<b>Spring 2020</b>
instructor Contact methods:	<b>In-person preferred, followed by phone calls: 412.894.3020</b> Please do not email unless doing so is a special electronic mail use case as described on course website
CCAC CIT/DAT department: contact	<b>Cathy Stewart</b> 412.369.4107 CCAC North Campus 8701 Perry Highway Pittsburgh, PA 15237-5353
CIT/DAT department chair:	<b>Professor Rebecca Elinich</b> relinich@ccac.edu
course Credits:	<b>3.0</b>
prerequisites:	<b>None!</b>

### I: Course Description:

In this course, students will examine the concepts of data analysis and how it impacts the business process. Emphasis will be placed on the development of sound research questions, the identification and verification of data sources, the retrieval, cleaning and manipulation of data and the process for identifying the data elements that are relevant for a given audience. An overview of the regulatory organizations that govern the release of data will also be reviewed.

### II: Learning Outcomes

The following content is extracted directly from the CCAC master course syllabus for DAT-102:

1. Demonstrate decision analysis techniques and tools.
2. Leverage database software to solve business problems.
3. Explain how managers use data analytics to formulate and solve business problems.
4. Differentiate among descriptive, predictive and prescriptive analytics.
5. Present simple visualizations to address given scenarios.

### III: The nitty gritty

textbook & materials	<b>Purchase of Statistics: Unlocking the Power of Data by Lock, Lock, Lock, Lock, and Lock</b> is encouraged. Get the first edition for about \$10 online. Your instructor also has a class set from which you can borrow. <b>Course Website:</b> Master course website with session-specific content, submission portals, and assignment details: <a href="https://technologyrediscovery.net/#python2">https://technologyrediscovery.net/#python2</a>
letter Grades	Drawing on completed work and contributions to our class learning environment, <b>propose a fair letter grade and a justification at midterm and final times using a 3x5 card.</b>  <a href="https://technologyrediscovery.net/coursesGen/trgrading.html">https://technologyrediscovery.net/coursesGen/trgrading.html</a>  <b>Attend the final session!</b> Attendance at final session and sharing of <i>fully-baked</i> final project is required to sufficiently justify a grade proposal of A or B except for pre-approved absences and "urgent, incidental, overriding life events"
due date	Work submission and grade proposals will be accepted until <b>Wednesday, 13 May 2020 @ morning light</b> but no later.
attendance & tardiness	As a primarily in-class driven course, <b>please try to attend 75-85% of sessions.</b> We recognize that students face varied constraints which can differently impact feasibility of class attendance. <i>Tardiness shall not be considered a factor in attendance.</i>
tests:	<b>No high-stakes tests!</b> Low-stakes, mini assessments written on single note cards will help track learning.
technology	<b>Laptops:</b> While this course specifically can be done only CCAC computers, students are encouraged to acquire a "middle-road" consumer-grade laptop computer of their own for this course, with a recommended 8 GB memory.
Academic Honesty	<b>Provide written credit to all relevant authors</b> of all code, writing, and project work for this course, including yourself and folks who help you (but who may not be published authors). Include direct URLs of websites consulted.  <b>Honor the copyrights</b> associated with all content used in this course.  <b>Consequences:</b> Students suspected of academic dishonesty will be asked to produce documentation to support any attributions (or, more commonly, non-attributions).

## IV: Official CCAC notices

my. ccac. edu	Students are reminded that they can access their course information and CCAC email account, the CCAC Academic Calendar (including add/drop/withdrawal deadlines), the Student Handbook, the College's Incident Report Form, and many other College services through the MyCCAC portal: <a href="https://my.ccac.edu">https://my.ccac.edu</a>
student handbook	<p>All students are expected to read and comply with the policies and regulations set forth in the CCAC Student Handbook, including without limitation the College's policies regarding academic and behavioral conduct, the procedures for requesting an accommodation based upon a disability, pregnancy or pregnancy related condition, or a religious observance, and for reporting unlawful discrimination and harassment.</p> <p>The Student Handbook is available to view and download along with the full text of the College's <i>Policy Manual</i>, <i>Administrative Regulations Manual</i>, and the Civil Rights Complaint Procedure:</p> <p><a href="https://www.ccac.edu/academic-rules-and-regulations/rules-and-regulations.php">https://www.ccac.edu/academic-rules-and-regulations/rules-and-regulations.php</a></p> <p><a href="https://www.ccac.edu/president/policies-and-regulations.php">https://www.ccac.edu/president/policies-and-regulations.php</a></p>
diversity	<p>Title IX of the Education Amendments 1972 (20 U.S.C. 1681 et seq.) and its implementing regulations, 34 C.F.R. Part 106, prohibit discrimination on the basis of sex in education programs or activities operated by recipients of Federal financial assistance. It is the landmark legislation that bans gender based discrimination in schools and colleges.</p> <p><i>"No person in the U.S. shall, on the basis of sex be excluded from participation in, or denied the benefits of, or be subjected to discrimination under any educational program or activity receiving federal aid."</i></p> <p><a href="https://www.ccac.edu/diversity/title-IX.php">https://www.ccac.edu/diversity/title-IX.php</a></p> <p><a href="https://www.ccac.edu/diversity/notices.php">https://www.ccac.edu/diversity/notices.php</a></p>
disability	<p>Information concerning the process and documentation required to request a disability-related accommodation can be obtained by contacting the campus' Office of Supportive Services for Students with Disabilities (OSSSD) or by visiting the OSSSD information page</p> <p><a href="https://www.ccac.edu/supportive-services/suppotive.php">https://www.ccac.edu/supportive-services/suppotive.php</a></p>

## V: Content licensing and sharing

licensing	<p>All non-computer code content on <a href="http://technologyrediscovery.net">technologyrediscovery.net</a> (course content, images, media) is licensed under the Creative Commons Share-Alike license (CC BY-SA 4.0); no attribution required.</p> <p><a href="https://creativecommons.org/licenses/by-sa/4.0/">https://creativecommons.org/licenses/by-sa/4.0/</a></p> <p>Computer code is licensed by file; most course code is copylefted under the GNU Public License</p>	
contribute	<p>You are invited to anonymously contribute your work products in this course to the freely reusable <i>creative commons</i> educational material ecosystem made possible by copy left licenses. Any work contributed to this course will fall under this site-wide license scheme.</p>	
sharing elections	<p>Please review the sharing preference options and CHOOSE ONE by initialing and dating the bottom of the box. You may change these at any time by talking with your instructor.</p>	
	<p><b>A. Full participation:</b> You may anonymously store and reproduce my coursework in the <i>creative commons</i> (except for individual work pieces marked with a big X or "do not share" DNS) init: ___ date: ___</p>	<p><b>B. Partial participation:</b> I'm open to sharing but would like to release work individually upon instructor request (default no share). I will submit any work <i>I do not want shared as a</i> hard copy to my student folder. init: ___ date: ___</p>
		<p><b>C. Non-participation:</b> I do not authorize the sharing of any of my coursework and will submit all my work hard copy to my student folder (never online). init: ___ date: ___</p>