



CIS Computer Information Systems

Advisory Board Meeting Minutes 02/18/20

CIS Department Chair

Professor Tobi West, CISSP, GCFE

The purpose of the meeting is to gain feedback from industry, government, and academic professionals working in the areas of computer information systems, data analytics, and other related professions.

Attendees:

- Tobi West - Professor, Computer Information Systems, Coastline College
- Aaron Voelcker - Dean of Institutional Effectiveness, Rancho Santiago CC
- Aeron Zentner - Dean of Research, Planning, Effectiveness, & Grants, Coastline College
- Alyssa Nguyen - Director of Research and Evaluation, RP Group
- Carolina Kussoy - Professor, Computer Info Management, Irvine Valley College
- Christine Kirkpatrick - San Diego Supercomputer Center, UC San Diego
- Dr. David Tobey - Assistant Professor, Indiana University South Bend
- Duane Rinehart - ICT Deputy Sector Navigator, San Diego
- Malia Mason - CEO Integrum, Pres. of Women in Cybersecurity (WiCyS) SoCal
- Michael Salviani - Professor at Computer Info Management, Irvine Valley College
- Steve Linthicum - ICT Deputy Sector Navigator, Orange County

Asynchronous Attendees:

- Eden Dahlstrom - Vice President of Professional Learning, EduCause
- Keith Jones - Information Assurance, Systems Analyst, General Dynamics
- Jesse Lawson - Data Scientist and Data Science book author
- Patrick Perry - CIO CSU Chancellor's Office
- Denice Inciong - District Director of Research, Planning, & Data Management at South Orange County CCD

Meeting Minutes

Covered an overview of Coastline's CIS program

- ★ Center of Academic Excellence in Cyber Defense Education
- ★ NSF Grant - GenCyber 07/15/19-07/19/19
- ★ K-12 Pathways
- ★ Military/distance learning

Covered the responsibilities of the advisory board

Reviewed current award options

- ★ Certificate of Achievement in Data Analytics
- ★ Certificate of Accomplishment in Intro to Programming

Reviewed pending degree and related courses

- ★ AS in Data Analytics

Reviewed proposed award options and related courses

- ★ Data Analytics
 - Certificate of Achievement in Data Science
 - Certificate of Accomplishment in Data Analytics
 - Certificate of Specialization in Data Analytics
 - Certificate of Specialization in Data Science

Discussion and program recommendations

- ★ Overall recommendations
 - All agreed that Coastline should continue moving forward with the program curriculum, including an Associate of Science in Data Analytics, the Certs, etc. to build out opportunity for new and returning students, re-skilling students, and promotion seekers
 - In the future, add more elective options to the AS degree as the program grows
 - Align courses or program awards with industry certifications
 - Make labs available to students through the use of netlab and cloud resources whenever possible
 - Incorporate cloud into assignments and curriculum
- ★ Michael Salviani
 - Continue to look at CSU pathway to develop relationship and articulation
 - Consider CSU Fullerton as well as Cal Poly Pomona
 - For the outreach camps, incorporate python and a computer science focus to get more kids to attend
- ★ Malia Mason
 - Align with industry certs whenever possible
 - Incorporate Azure/AWS/Google cloud as much as possible
 - Can connect program faculty with She Loves Data, Women in Big Data, and others
 - In the future, add DA 5 as an elective to the AS degree, if possible
 - Will continue to offer industry and non-profit connections
- ★ David Tobey
 - Look at the latest from the Department of Standards & Certificates
 - Consider these certification options when looking long term
<https://www.cio.com/article/3209911/big-data-certifications-that-will-pay-off.html>
 - Ensure that the certifications you align with are designed for entry level. For example the Associate Certified Analytics Professional

COASTLINE COLLEGE

- Consider job roles and aligning capabilities and achievements with the jobs that people have recently hired
- ★ Aeron Zentner
 - Continue moving forward with the program curriculum, including AS, Certs, etc. to build out opportunity for new and returning students, re-skilling students, and promotion seekers
 - Ask employers what jobs they are planning to hire for in the future
- ★ Duane Rinehart
 - Made some comparisons to the Stats courses at Grossmont College, noted that Coastline could look at offering Stats tailored to specific disciplines such as Bio, Life Sciences, etc.
 - Keep SQL Admin as a separate class
 - Consider adding a programming component for automation of the data retrieval/processing steps. (e.g. python, javascript)
- ★ Steve Linthicum
 - CompTIA is looking into providing a data analytics certification
 - Is Systems Analysis and Design aligned with ITIS 140 CID?
- ★ Carolina Kussoy
 - Great program, keep moving forward with the AS and Certs, this is a model program
 - Look at C-ID model curriculum for ideas and ways to align
 - Well organized and incorporates courses appropriate to industry
- ★ Alyssa Nguyen
 - Look at articulating with the 4-year schools
 - Look at Skillbuilders
- ★ Aaron Voelcker
 - Consider making Stats a requirement on Intro to Data Analytics rather than an advisory
- ★ Christine Kirkpatrick
 - Consider adding assignments using cloud tools for SQL; have students work with cloud buckets, etc.
 - Consider changing the name of the SQL course
 - Can connect us with cross-border schools in Mexico, they are looking for students that would want to work in Mexico
 - Look to work with industry, anchor employers
 - Don't lose the DBA troubleshooting and relationships between different job roles
 - Types of events or initiatives to partner with: <https://waterchallenge.data.ca.gov/> or <https://www.bigdatahubs.io/>. The West Hub could be a connector in.
- ★ Eden Dahlstrom
 - I agree this is a great program
 - Interesting addition of the PSYC C100 requirement

★ Jesse Lawson

- Glad there's a stats requirement. This should be a pre-req to any data analytics course. Ideally, we might explore a "Statistics for Data Analysis", which could set the foundation for future machine learning courses and curriculum.
- Exposing students to a broad set of tools is ideal for today's hiring managers. I still work as a tech consultant and recently am helping Netlify develop their onboarding process for their engineers. The private sector, in my opinion, is placing high value on project success over being able to solve puzzles on a whiteboard. Showing even a basic proficiency with a subset of the vast array of tools out there for data analytics will help Coastline graduates be more competitive during interviews.
- I see two pathways that branch from completing the Data Analytics Cert--go left, and get heavy into machine learning, computer vision, predictive analytics, and forecasting; go right, and get heavy into business analysis, process automation, reporting and effectiveness. I'm really excited for how this program will fit into the offerings, and I think it provides a good enough foundation to develop confidence and intuition for the material.

★ Patrick Perry

- I totally love it
- Consider developing a marketing plan for this; consider the AIR national forum

★ Denice Inciong

- The curriculum looks good
- Fully in support of the program
- I think the program looks great, and I look forward to the program moving forward

A large, stylized graphic of the year '2020' in a light blue, textured font. The numbers are outlined and have a dotted pattern inside. The background of the slide is a dark blue world map.

CIS Data Analytics Advisory Board

02/18/20
Coastline College

DATA ANALYTICS

01



Data

Numeric values

But what do these numbers mean?

02



Information

Facts about data

An interpretation of the data.

03



Insight

Deep understanding

Wow! You're smart!

04



Decision

Conclusion

Our new online Data Analytics program will be the best!

DATA ANALYTICS ADVISORY BOARD

Purpose

- Understand Coastline's CIS program
- Review proposed curriculum
- Reflect on your experience and provide input to help us build courses/programs that meet industry needs

Thank you!



PREPARING FOR THE FUTURE

Build Programs for Future Jobs

375 million workers will need to learn and master new skills for the rise of automation and smart machines

McKinsey Global Institute



Center of Academic Excellence

In Cyber Defense Education

NSA & DHS

K-12 Pathways

Outreach Events & Competitions

CIS Faculty

2 Year Degrees

80% Distance Learning

re-skilling, promotion, lifelong learner



Associate of Science

Started development in
October 2019

6 new
courses

DATA ANALYTICS & MODEL CURRICULUM



Preparing Students
for Future Jobs



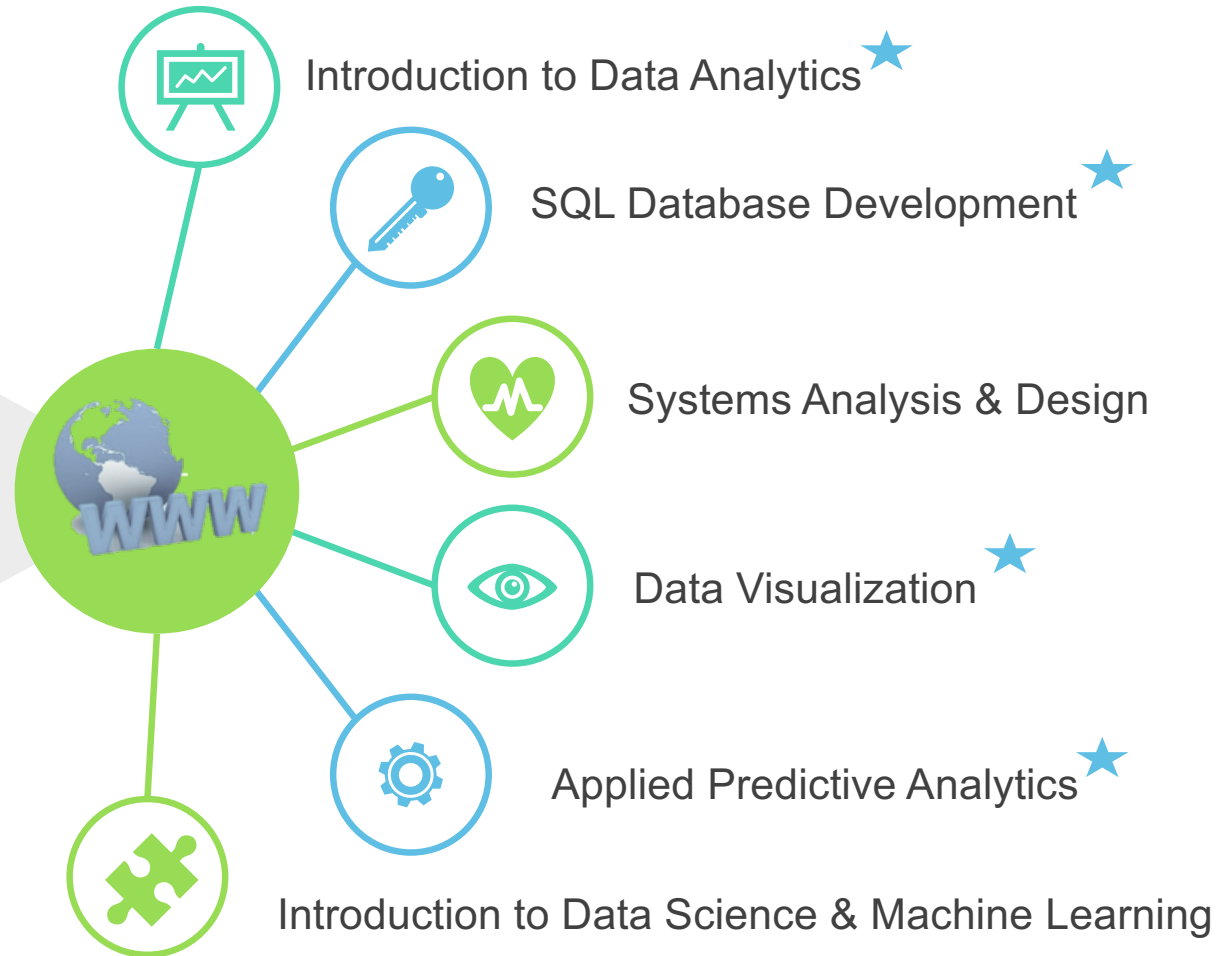
Certificate of Achievement

Was State approved in
September 2019

3 in
draft

ONLINE PROGRAM – DATA ANALYTICS

1st



AS in Data Analytics

Course No	Course Title	Credit Hours
MATH C160	Introduction to Statistics	4
PSYC C100	Introduction to Psychology	3
PSYC C280	Introduction to Research Methods in Psychology	4
CIS C240	SQL Database Development	3
CIS C250	DA 1 - Introduction to Data Analytics	3
CIS C260	DA 2 - Systems Analysis & Design	3
CIS C270	DA 3 - Applied Predictive Analytics	3
CIS C280	DA 4 - Data Visualization	3
Required + GE = 60		26

Certificate of Achievement in Data Analytics

Course No	Course Title	Credit Hours
MATH C160	Introduction to Statistics	4
PSYC C280	Introduction to Research Methods in Psychology	4
CIS C240	SQL Database Development	3
CIS C250	DA 1 - Introduction to Data Analytics	3
CIS C260	DA 2 - Systems Analysis & Design	3
CIS C270	DA 3 - Applied Predictive Analytics	3
Total		20

Certificate of Achievement in Data Science

Course No	Course Title	Credit Hours
MATH C160	Introduction to Statistics	4
CIS C157	Introduction to Python Programming	3
CIS C250	DA 1 - Introduction to Data Analytics	3
CIS C260	DA 2 - Systems Analysis & Design	3
CIS C280	DA 4 - Data Visualization	3
CIS C285	Prescriptive Analytics	3
CIS C290	DA 5 - Introduction to Data Science & Machine Learning	3
Total		22

Certificate of Accomplishment in Data Analytics

Course No	Course Title	Credit Hours
CIS C240	SQL Database Development	3
CIS C250	DA 1 - Introduction to Data Analytics	3
CIS C260	DA 2 - Systems Analysis & Design	3
CIS C280	DA 4 - Data Visualization	3
Total		12

Certificate of Specialization in Data Analytics

Course No	Course Title	Credit Hours
CIS C240	SQL Database Development	3
CIS C250	DA 1 - Introduction to Data Analytics	3
CIS C280	DA 4 - Data Visualization	3
Total		9

Certificate of Specialization in Data Science

Course No	Course Title	Credit Hours
CIS C157	Intro to Python Programming	3
CIS C280	DA 4 - Data Visualization	3
CIS C290	DA 5 - Introduction to Data Science & Machine Learning	3
Total		9

PROGRAM DEVELOPMENT

Full Time Faculty

Companies to connect with?



Course Development



Outreach & Pathways



Advising



Competitions & Camps

CIS

Full Time Faculty

***2.7M job openings
data analytics***

Thank You!

DATA IS UBIQUITOUS



Predict trends based on past data

