



جامعة الإمام عبد الرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

Professional Certifications Alignment

تقرير مبادرة الاختبارات المهنية
كلية علوم الحاسب وتقنية المعلومات

Imam Abdulrahman Bin Faisal University's Professional Certifications Alignment Report. This reference summarizes the work accomplished with respect to mission objectives assigned by the College of Computer Science and Information Technology (CCSIT), Imam Abdulrahman Bin Faisal University (IAU).

10 April 2019

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Contents

Disclaimer	4
Contributions	5
Document Revision History	5
Self-evaluation Rubrics	6
Evaluation Summary (CS)	6
Evaluation Summary (CIS)	7
Evaluation Summary (CYS)	8
Due Date	9
Handbook for Professional Exams	9
About the Handbook	9
Handbook Revision History	10
Periodic Releases	11
Evidence of Alignment Between Curriculum and the PE Blueprint	11
Initial Attempts to Involve Faculty	11
Data Collection	12
Submission Instructions	14
Submission Deadline	15
CIS Course Alignment	15
CS Course Alignment	17
CYS Course Alignment	19
Orientation Program for the Faculty and Students	20
Workshop Title	20
Date and Time	20
Venues	20
Pre-program Survey	20
Misk Udacity Scholarships (Nanodegree Certifications)	23
About the Initiative	23

What is a Nanodegree?	24
Application Requirements	24
Registration Deadline	25
Pre-application Survey	25
Post-application Survey	32
Evidence of Student Exemptions	41
Status	41
Recommendations	41
List of Successful Alumni in Their Relevant PEs	41
Status	41
Recommendations	42
MoUs With National and International Examining Bodies	42
Description	42
Type of Agreement	42
Contact Person	42
Commencing and End Dates	42
Miscellaneous	43
Slack Workspace	43
PCA Email Account	43

Disclaimer

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Contributions

This document was made possible thanks to the joint efforts of:

- Dr. Mustafa Youldash (Chairman) <mmzyouldash@iau.edu.sa>
- Dr. Mohammed Gollapalli <magollapalli@iau.edu.sa>
- Dr. Naya Nagy <nmnagy@iau.edu.sa>
- Mr. Nehad Ibrahim <nmalbrahim@iau.edu.sa>
- Ms. Norah AlMubairik <naalmubairik@iau.edu.sa>
- Mr. Saad Alharthi <saalharthi@iau.edu.sa>
- Mr. Abdalwahab Nasser Almajed <analmajed@iau.edu.sa>
- Mr. Yousof Zohair Almunsour <yzalmunsour@iau.edu.sa>

Document Revision History

This table describes the periodic changes to the PCA Report:

Professional Certification Alignment Report — Revision History

9 April 2019	v1.01	Initial release of the Report
10 April 2019	v1.02	Added MoUs with examining bodies. Self-evaluation section updated

Self-evaluation Rubrics

The objective is to conduct a self-study of the current practices at CCSIT with respect to professional examinations. This self-study was conducted using a self-assessment rubric, which was provided to the college via the **Professional Exams Initiative (PEI)** board. The PEI rubric was then passed on to each of the three CCSIT departments: **Computer Science (CS)**, **Computer Information Systems (CIS)**, and **Cybersecurity and Digital Forensics (CYS)**.

This reference includes the results of each rubric and they reflect the following:

- The level of awareness of CCSIT students, and faculty members on relevant **Professional Exams** (or **PEs** for short).
- Forward integration of the college with the certifying bodies/agencies.
- Number of student passing from the first attempt.
- Setting (optional) exit exams.

Deliverables for the self-evaluation, using the rubrics, are presented below (for each separate department):

Evaluation Summary (CS)

Student Awareness on Relevant PEs

- ✓ Student survey performed for senior students. Only 36.6% from our students aware of the professional exams. A “fair” number of students are aware by PEs and the majority (whom were surveyed at that time) preferred Microsoft Exams, Java and Databases certification programs.

Faculty Awareness on Relevant PEs

- ✓ Only 61.53% are aware of PEs. The major certificates recommended by faculties are:
 - ▶ Red Hat, CCNA.

- ▶ MCSA SDA Java SE Certifications.
- ▶ Oracle Java Programming - IBM Data Analyst.
- ▶ CISSP, Security+, SSCP, CSSLP, CISM, CISA, CRISC, CISO, C|CISO, ISFCE, and CGEIT.

✓ 44.4% of the CS course curriculum matched with various PEs. Examples mentioned were:

- ▶ PC Hardware Professional (PCHP).
- ▶ Oracle Java SE 8 Programmer.
- ▶ Scala Specialization on Coursera.
- ▶ CompTIA Linux+.

CCSIT Forward Integration

✓ Only one faculty member appeared to have obtained the CIHE professional certification: Certified Incident Handling Engineer.

Evaluation Summary (CIS)

In a Nutshell

- ✓ Students had little/bad reputations on the certification programs due to experience on red hat academy last year (by their seniors).
- ✓ Students were unwilling/had little interest in certification and even till date they are more focused on courses.
- ✓ The new job market (2030 vision) has been encouraging students with the wealth of opportunity to easily obtain jobs after graduation (unlike their seniors) and hence students are unwilling to pay any serious attention.

- ✓ Collecting the self-evaluation data from students via surveys and feedback was very challenging as students were not interested in participating until reminders were sent few times.
- ✓ Collecting the self-evaluation data from faculties via surveys was also challenging due to the very tight schedule this semester. Faculties are busy with their tight schedule and need to finish courses and everything including exams prior to Ramadan.
- ✓ Workshops conducted for both faculties and students had poor participation record.

Recommendations

- ✓ Students need to be exposed with the market trends and demands and the significance of professional certifications.
- ✓ Students need to be constantly reminded in courses especially which are perfectly matching with the certifications and need to be encouraged.
- ✓ Students need to be encouraged with some kind of college rewards programs in order to make them participate in the certifications.
- ✓ Faculties also need to be encouraged to seek for professional certification with free/discounted fees.
- ✓ Majority of faculties in the college don't have industry experience and are purely academic based. Hence, certification and its significance is not being reflected and they need to be made aware of this as well.

Evaluation Summary (CYS)

In a Nutshell

According to survey, 78% of senior students appeared to be aware of PEs (related to their specialization). This is a good indicator as we might well expect this percentage to increase in the future.

Due Date

Challenges and Setbacks

Task was done with multiple setbacks to the data entry completion process.

Original deadline was **October 18, 2018**. Deadline was too close since the first orientation, organized by the PEU board. **March 18, 2019**, the team was finally able to deliver the missing bits in all 3 reports (related to each CCSIT department).

Handbook for Professional Exams

About the Handbook

The PE Handbook, which is a separate document to this one, is organized in a manner that would reflect the following:

1. The handbook reveals a selected number of 'candidate' exams (or certification programs if you may will), picked based on survey data results collected within a short period. Each program is **summarized** in a manner that reveals important aspects such as exam/certification title, prerequisites, program category, exam process, application process, and URL, or Unified Resource Locator (i.e. supporting Web-link for each listing).
2. Each program category, or just program as in the handbook (i.e. which CCSIT program does a particular mentioning falls under or serves best based on curriculum topics and course syllabi) reflects the initials of each CCSIT department. A listing may have one, or more departments as it may well serve all three departments, or just two for example.

The CCSIT PCA Committee came to the agreement that the current **top pics**, based on popular (national) demand, and college alignment, are (and not limited to) the following — in no particular order:

Top Listings Based on College, and Poplar Demand

- 1 Microsoft (MTA, MCSA, MCSD, and Azure). All are Microsoft Certified Professional (MCP) exams
- 2 Red Hat Academy (EX200, EX300, EX183, and 283) exams (contracted with CCSIT very recently)
- 3 COMPTIA (LINUX+) exam
- 4 Oracle (Java SE, BPM, and MySQL) exams
- 5 Cisco (CCENT, CCNA, and CCNP) exams (depending on department track/curriculum)
- 6 Python Institute (PCAP and PCPP) exams
- 7 Cybersecurity (e.g. CISSP and CEH) exams listed herein
- 8 Scala (via Coursera) course for acquiring Advanced Programming skills needed for industry
- 9 Udacity Nanodegrees (not covered extensively as they differ based on specialization/skillset)
- 10 Udey courses (not covered extensively as they differ based on specialization/skillset)

Handbook Revision History

This table describes the periodic changes to the PE Handbook:

Professional Exams Handbook — Revision History

12 November 2018	v1.01	Initial release of the Handbook
25 November 2018	v1.02	New courses added, content rewritten. New headings to group certifications and exams based on their issuers/granters.
27 November 2018	v1.03	Program subsections added under each listing. Document body refined and corrected. Organization rewritten.
28 November 2018	v1.04	Minor typos fixed. Oracle certification info updated.
9 February 2019	v1.05	Update to the list of certification programs. Main font changed.
9 March 2019	v1.06	Listings updated (following the results of the Curriculum Alignment). Survey data used to update and prioritize exams based on CCSIT faculty feedback.

Periodic Releases

The handbook, went through periodic changes to meet the expected requirements of the college. The current “**beta release**” of the PE Handbook, which was distributed amongst students and faculty, is version **v1.06** <<http://bit.ly/CSISHandbook106>>.

Evidence of Alignment Between Curriculum and the PE Blueprint

Initial Attempts to Involve Faculty

As part of the “**evidence of alignment between curriculum and the professional exams blueprint**” mission statement, the PCA Committee sought to invite, and involve all academics to participate in the data collection process pertaining to the mapping of CCSIT courses (both lectures and labs), and leading PEs/ Certification programs. By participating in our survey (which is elaborated below) we can “easily” identify a number of technology companies whose certifications/exams are in high demand.

Survey Invitation

On **November 8, 2018**, a mass mail via the Dean’s email account <ccsit@iau.edu.sa> was distributed amongst all CCSIT faculty members. It included the following message:

“Based on the direct instructions from the Dean of the college and the request from Professional Certification Alignment Committee we need to know if the courses you are teaching have any link and connection with any of the Professional Certifications such as Microsoft/Cisco/RedHat, Oracle etc. in another meaning what are the levels of awareness from both students and staff of the existence of any relevant professional exams, which are aligned with the curriculum. For instances, if the syllabus of (Communication & Network Fundamentals lab) shows a level of similarity to the requirements and pre-requisites for undertaking a CCNA examination, then you can send the syllabus and the related lab materials as evidence (as per requirements set by the University administration).”

Data Collection

First Attempt

By **November 11, 2018** (which was the initial deadline for submission), only **16 responses** were saved. Progress was noticeably slow in the beginning as we had no choice but to resend reminders to faculty to participate in this important survey.

Second Attempt

On **February 25, 2019**, a followup email was sent via the Dean's email to (urgently) remind faculty about the importance of supporting our cause.

Survey Body Message

On **February 14, 2019**, we invited faculty to participate in our **Evidence of Alignment (Blueprint)** survey. We designed it to let us determine the level of alignment (i.e. matching) between our currently offered courses (and labs) in our three main departments (i.e. CS, CIS, and CYS) and (any) PEs/Certifications, which are currently offered by vendors and organizations and associations worldwide.

Mission Statement

Our mission is to provide a definitive answer to the following criterion:

“Is there any evidence of alignment between the current curriculum and the Professional Exams and Certifications?” To answer this, we asked faculty to attach the supporting documentation (e.g. course syllabi, topics, lab descriptions, etc.) to this survey. This step was vital for us to express as it allowed us to verify the data against the claims made by every participant.

Survey URL

Designed using **QuestionPro**. See <<https://alignment.questionpro.com>>.

Link to the PE Handbook (for Reference)

We also recommended the following (to aid faculty in completing the required survey questions):

“Before you attempt to answer the questions in this survey, we highly recommend that you take a look at our current “beta release” of the **PE Handbook (v1.05)** <<http://bit.ly/CSISHandbook105>>. This document, as the naming suggests, is a work-in-progress, and is expected to be presented to the President of the University (as a major college milestone). Please take a look at what is currently listed, in terms of Professional Exams and Certification programs that are related to our courses. If you believe this version DOES NOT include other programs that are worthy, which are relevant to our courses, then we wish that you include them here. Your feedback will allow us to constantly update the handbook with the best of offerings to our faculty, and students alike.”

Insights

The table below summarizes the survey sample size and completion information:

Completions / Dropouts

	Survey Analysis	Result
1	Viewed	97
2	Started	29
3	Completed	29
4	Completion Rate	100%
5	Drop Outs (After Starting)	0
6	Average Time to Complete Survey	8 minutes

The table below summarizes submission information:

Submissions from Each Department

	Answer	Count	Percent
1	Computer Science (CS)	9	31.03%
2	Computer Information Systems (CIS)	15	51.72%
3	Cybersecurity and Digital Forensics (CYS)	5	17.24%
	Total	29	100%

The table below reveals the course types(e.g. Lecture or Lab) for each submission:

Course Delivery Type (e.g. Lecture or Lab)

	Answer	Count	Percent
1	Lecture (Theoretical)	25	86.21%
2	Lab (Practical)	4	13.79%
	Total	29	100%

Submission Instructions

We also recommended the following:

“Please note that you need to submit this survey (once per course/lab) as this will allow us to track each submission on a case-by-case basis. We promise you that the time to complete this survey is quite short, however the process of going through each course/lab and comparing/matching it with existing Professional Exams is expected to be longer. For instance, if you are teaching **Communication and Network Fundamentals** and the syllabus of this course (or lab notes) shows a level of similarity to the requirements and prerequisites for undertaking the **CCNA Routing and Switching** exam, then you can upload the syllabus, along with a **Matching Breakdown** i.e. a table that lists each theoretical/practical topic along with its matching topic in the exam offering.”

This was then followed by:

“Once you complete this part, you will be kindly asked to provide us with the overall matching estimate (%) for each course/lab. For instance, you can determine/calculate this metric by, for instance, dividing the number of topics being offered in the exam by the number of lessons/topics in the relevant course, or lab content. Of course you can provide us with your estimate based on other means if you seem them fit, since there is no common strategy that could be applied to this study (as instructed by the initiative administration)”

In addition to:

“If a course/lab has more than one matching exam, or certification program, then you are kindly requested to submit this survey once per exam matching. This will allow us to track each matching faster (for each related course).”

Submission Deadline

We announced **February 26th, 2019**, to be the final submission day, **at exactly 2 pm**.

Extended Deadline

On **March 3, 2019**, a followup email was sent, asking faculty (whom haven't participated at that time) to help us in completing the blueprint. In this email we advertised **March 9th, 2019**, as the ABSOLUTE LAST extension to submit.

Since the time of announcement only **26 entries** were recorded.

CIS Course Alignment

There are **11** CIS courses that have been examined for alignment evidences. There are as follows:

CIS 315 Communications & Network Fundamentals

Certificate: CCNA R&S: Intro to Networks

Alignment percentage: 95%

Certificate: Interconnecting CISCO Networking Devices (ICND) 1

Alignment percentage: 55%

CIS 414 IT Project Management

Certificate: Certified Associate in Project Management (CAPM)

Alignment percentage: 87%

CIS 321 Database Concepts & Design

Certificate: MSSQL 5.6 Developer

Alignment percentage: 80%

CIS 326 IT Infrastructure Management

Certificate: CCNA Routing and Switching: Routing and Switching Essentials

Alignment percentage: 55%

CIS 512 Software Quality Assurance

Certificate: Certified Software Quality Engineer (CSQE)

Alignment percentage: 50%

CIS 426 Enterprise Architecture

Certificate: TOGAF 9 Foundation

Alignment percentage: 30%

CIS 423 Web Based Systems

Certificate: Exam 70-480/Course 20480 Programming in HTML5 with JavaScript and CSS3

Alignment percentage: 30%

CIS 425 Computer Data Security & Privacy

Certificate: Certified Information Systems Security Professional

Alignment percentage: 5%

CIS 422 Human Computer Interaction

Certificate: None

Alignment percentage: 0%

CIS 416 Data & Information Management

Certificate: None

Alignment percentage: 0%

MGMT 320 Principles of Management

Certificate: None

Alignment percentage: 0%

CS Course Alignment

As for CS courses, there are **6** courses that have been examined, and just **3** courses that have shown certain levels of alignment. These of which are elaborated next:

MGMT 320 Principles of Management

Certificate: None

Alignment percentage: 0%

CS 322 Operating Systems

Certificate: CompTIA Linux+

Alignment percentage: 40%

Certificate: Red Hat System Administration

Alignment percentage: 5%

CS 526 Mobile Application Programming

Certificate: Oracle Java SE 8 Programmer

Alignment percentage: 2%

CS 422 Computer Organization

Certificate: PC Hardware Professional (PCHP)

Alignment percentage: 0%

CS 222 Electronics

Certificate: None

Alignment percentage: 0%

CS 516 Advanced Programming Language

Certificate: None

Alignment percentage: 0%

CYS Course Alignment

There are **5** CYS courses that have been examined for a proof of alignment, and **4** of them have shown certain levels of alignment. These of which are elaborated next:

CYS 404 Information System Audit

Certificate: Certified Information Systems Auditor (CISA)

Alignment percentage: 70%

CYS 406 Network Security

Certificate: Certified Information Systems Security Professional

Alignment percentage: 60%

Certificate: ISC2 SSCP Certification Exam

Alignment percentage: 44%

CYS 401 Cyber Laws & Security Policy

Certificate: Certified Information Systems Security Professional

Alignment percentage: 40%

CYS 535 Intro to Reverse Engineering

Certificate: Udemy: Reverse Engineering & Exploit

Alignment percentage: 25%

CYS 407 Digital Evidence Analysis

Certificate: None

Alignment percentage: 0%

Orientation Program for the Faculty and Students

On the the date that is mentioned below, the PCA Committee took the liberty in delivering an orientation workshop, enlightening the attendees (whom are composed mainly of students, along with faculty members of the college) about the importance of pursuing PEs and how how they are important to the Kingdom's 2030 Vision plan.

Workshop Title

The Importance of Professional Certifications in the Kingdoms's 2030 Vision.

Date and Time

Scheduled on Tuesday, **February 12, 2019**. Time was from **10 — 11 AM**.

Venues

CCSIT Main Auditorium (males) — Event Room, Building 650 (females).

Pre-program Survey

To collect valuable data from our attendees, we sought to publish a survey dedicated to such an event. We asked the attendees questions like (in no particular order):

- CCSIT Major (i.e. if they belong to one of our three departments, or they're not yet specialized).
- Academic Careers (i.e. Undergraduate or Postgraduate student, or CCSIT Faculty).
- IAU Email Address.

Survey URL

Designed using **QuestionPro**. See <<https://pcorientation.questionpro.com>>.

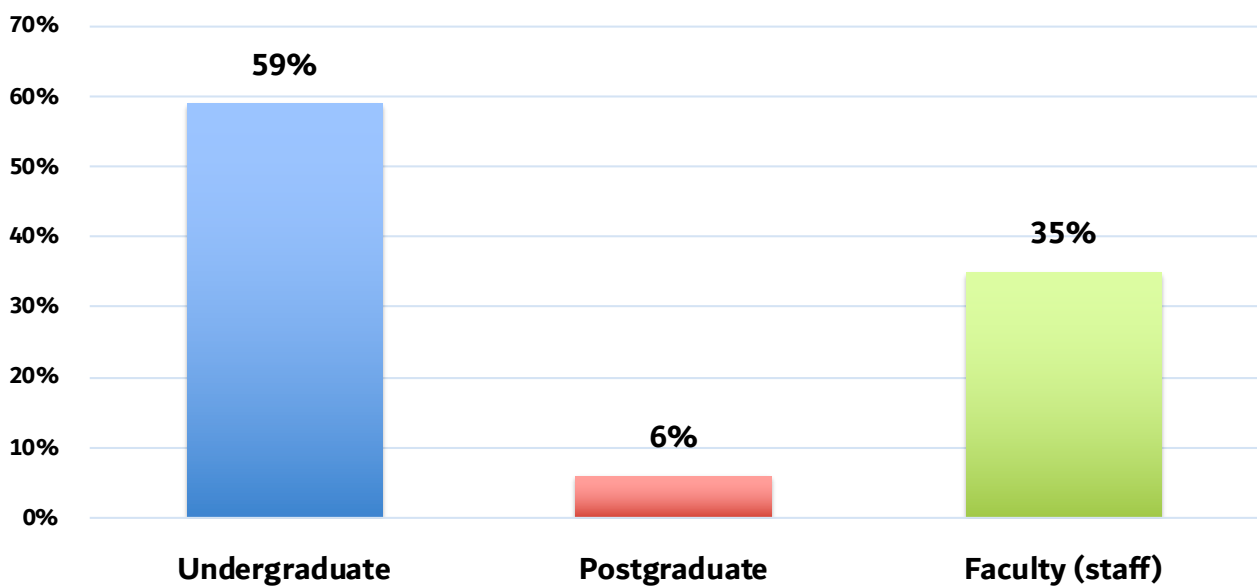
Survey Announcement

Via CCSIT's official twitter handler, and through email distribution.

Survey Analysis

Academic Careers

The cart below identifies the three option selections made by each participant:



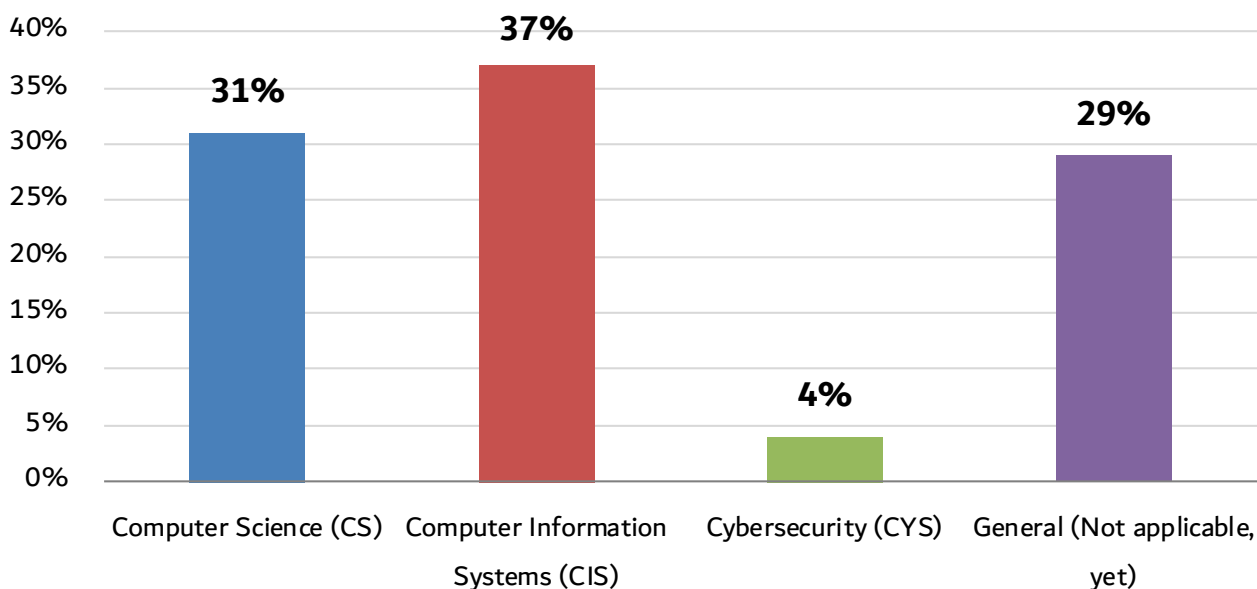
In the bar graph, 59.18% (i.e. 29) represented Undergraduate students, 6.12% (i.e. only 3) represented Postgraduate students, and 34.69% (i.e. 17 esteemed faculty members of CCSIT).

Note: No measures were taken to confirm their attendance on event day.

Recommendation: Bets to track the attendance list and mark it according to preliminary registrations to know for sure who attended and who (skipped) such events in the future. This would allow us to verify the numbers more accurately in future reporting.

CCSIT Majors

The cart below identifies which department each student currently belongs to:



The **General** category reflects students whom have not specialized yet (pr rather, they did not reach their third year of studies).

The data showed 30.61% (i.e. 15) from the CS department, 36.73% (i.e. 18) represented the majority from the CIS department, 4.08% (i.e. only 2) from the CYS department, and finally 28.57% (i.e. 14) represented students whom have not yet specialized in any of the three CCSIT tracks.

Insights

The table below summarizes the survey sample size and completion information:

Orientation Program Survey Analysis

Started By	Completed By	Completion Rate %	Dropouts
150	49	100%	0

Average time to complete the survey was 1 minute.

49 entries do not represent the faculty majority as we recommend such survey announcements be made in a timely manner that would allow the event to be noticed by all members of the faculty, including students.

N survey dropouts were ever noted.

Misk Udacity Scholarships (Nanodegree Certifications)

About the Initiative

As part of the “**planing and preparing of relevant PEs according to the availability of resources**” mission statement, the PCA Committee took an opportunity to spread the word on **MiSK Udacity** and their newly announced **Cohort**.

This initiative by the **Misk Academy** <<https://misk.org.sa>>, in partnership with **Udacity** <<https://www.udacity.com>>, aims to build the knowledge and skills needed for work in the digital age. The program offers “top of the line” learning in technology that is aimed to help learners gain practical learning. Their strategic goal is to have the biggest impact on the employability young Saudis who want to contribute to the Kingdom’s advancement in digital skills.

With the success of their first phase, which offered 2,650 scholarships in five tracks. Misk Academy and Udacity extended the initiative for a second phase, by offering more than **13 different Nanodegrees** from foundational to job-ready and advanced levels for Saudis from all around the Kingdom. Phase 2 was initially

divided into 3 cohorts offering 6,000 scholarship seats in total with an aim to introduce advanced technology skills into the Saudi market.

Detailed information regarding their online program announcement can be found here:

<<https://misk.org.sa/miskacademy/services/udacity-program>>

What is a Nanodegree?

A Udacity Nanodegree Program is a unique online educational offering (i.e. an online certification) designed to bridge the gap between learning and career goals. A typical Nanodegree program can extend from 3, 4, and 6 months (and in some cases up to 12 months depending on the program specialization). The topics presented are (to a certain degree) related to those offered by specific courses in the college, e.g. Database Concepts and the Structured Query Language (which is offered in the Business Analytics Nanodegree).

Application Requirements

To qualify, students, and faculty, needed to satisfy the following criteria (as announced):

- A Saudi national.
- At least 18 years of age at the time of enrollment.
- Very good proficiency in spoken and written English language.
- Commitment to a minimum of 15 hours/week of self-study.
- Commitment to attend 4 hours of weekly in-person class instruction (Riyadh, Alkhobar, Jeddah, virtual).
- Complete the online application before the deadline.
- Have the minimum required technical knowledge for each track as specified in the application.
- Payment of SAR 500 administrative fee if accepted, and refundable upon graduation.

Registration Deadline

Online registrations closed on February 9th, 2019.

Pre-application Survey

After reviewing the online application submission procedures, and reviewing each Nanodegree program offering (using the link below), both students and faculty were invited to participate in a Pre-application Survey. In this survey they were asked if they were interested in applying in one of the current offerings. The survey/questionnaire was designed to take approximately 1-2 minutes to complete.

Survey Introductory Message

In the beginning of this survey we assured our participants that their participation is highly appreciated, as it is very important for us to learn their thoughts and aspirations in seeking further education, and in gaining professional certifications and recognition by the industry. By participating, we will be able to provide to both students (mainly), and faculty alike, with proper guidance in choosing an appropriate study pathway for you. We also assured them that the survey responses will be strictly confidential and data from this research will be reported only in the aggregate. The collected data entries were coded, and remain confidential.

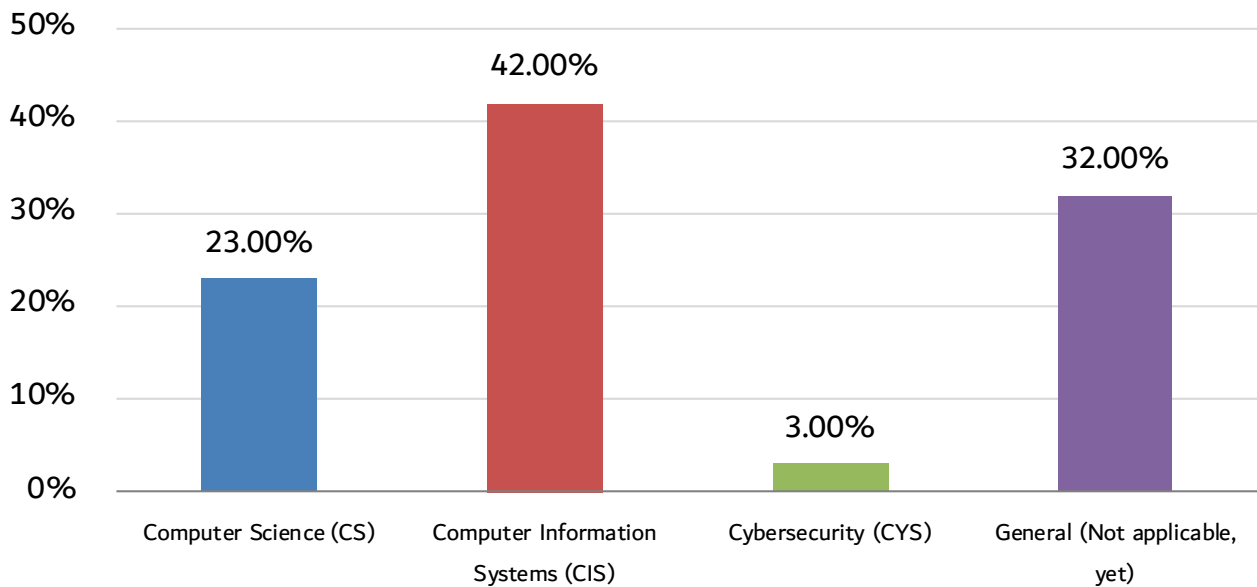
Survey URL

Designed using **QuestionPro**. See <<https://miskacademy.questionpro.com>>.

Survey Analysis

CCSIT Majors

The cart below identifies which department each student currently belongs to:

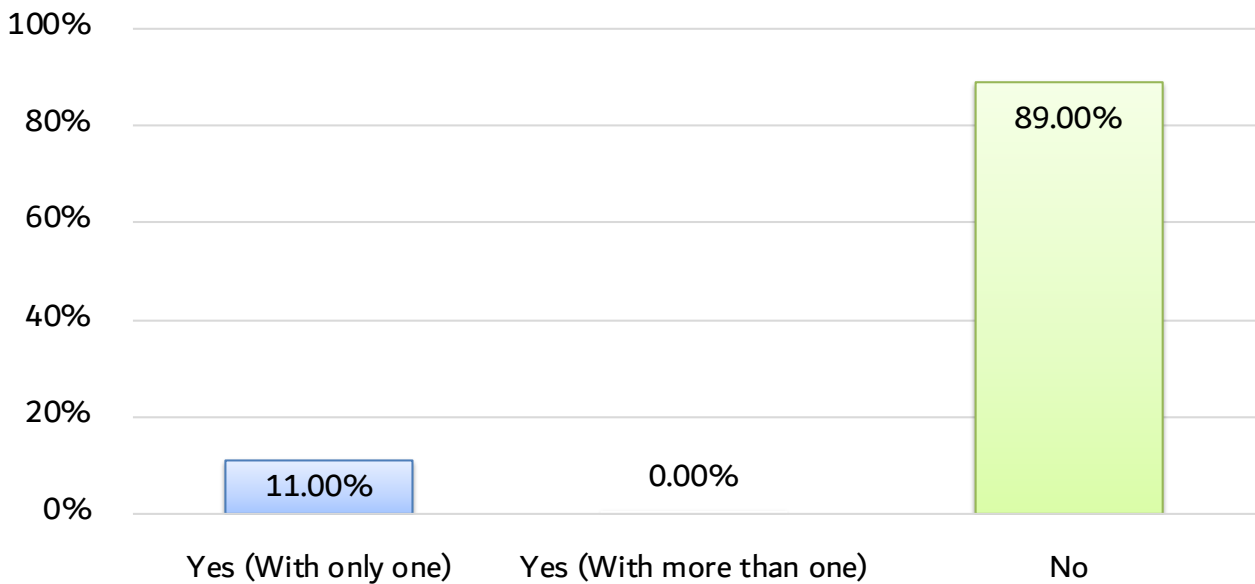


The **General** category reflects students whom have not specialized yet (pr rather, they did not reach their third year of studies).

Participants with Existing Certifications

We also asked them: “**Have you been recently awarded a Professional Certificate? (In other words, do you have one (or more than one) Professional Certification from any of the well-known providers e.g. CISCO, Oracle, Microsoft, ...?)**”

Findings are summarized below:

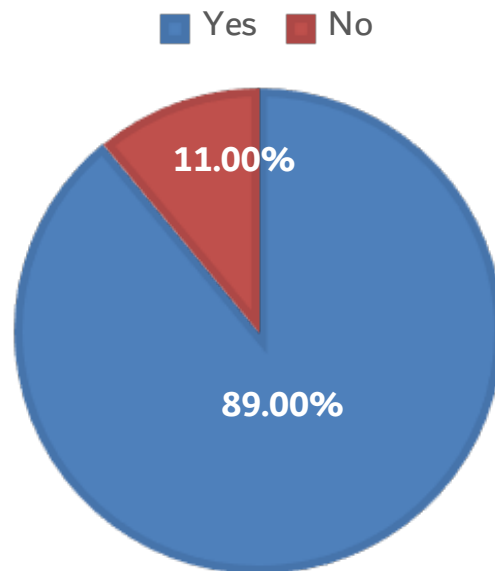


These findings suggest the current level of awareness amongst the students of the importance of PEs can be boosted by various means e.g. through conducting workshops and events tailored for spreading the awareness, in a manner that would encourage those whom do not currently have any certifications to pursue for at least one from Udacity, or from other means.

First Time Applicants

We also asked them: **“Is this the first time you are applying to one of MiSK Udacity’s Nanodegree programs?”**

Findings are summarized below:

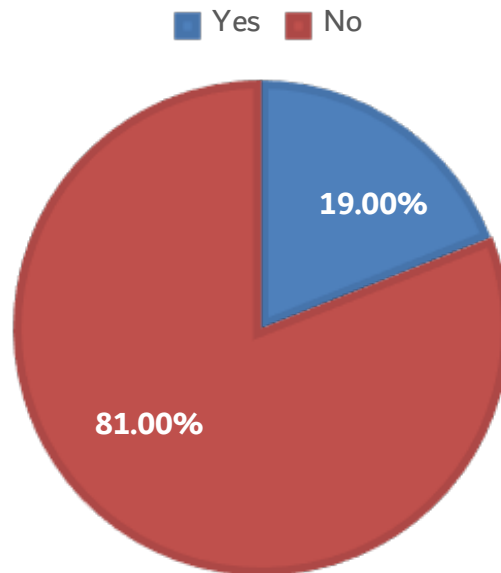


This finding suggests that there are ongoing/previous attempts by students to engage into various certification programs from Udacity. This is “quite extraordinary” as the awareness of students seems to be growing and that they are willing to pursue further educational opportunities (other than those provided by major certification providers e.g. Microsoft, Google, IBM, etc.).

Current Enrollments

We also asked them, right after the previous question: **“If the answer to the previous question was No, then are you currently enrolled into (at least) one of Udacity’s online Nanodegree programs, or courses?”**

Findings are summarized below:

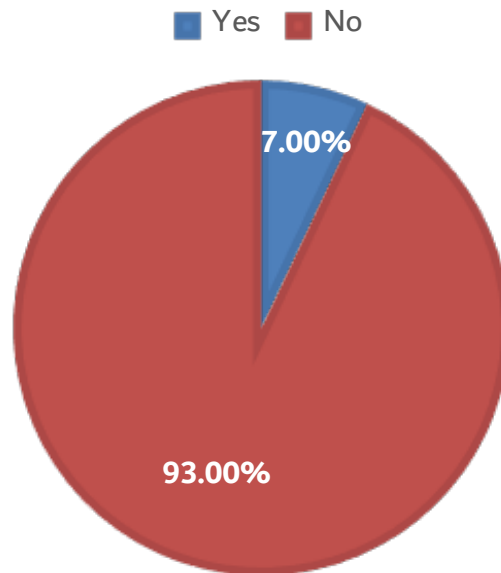


It turns out that a “fair” 19% of survey participants are needed participating in various online training programs provided by Udacity. The college might engage with the academy (or directly with Udacity) in establishing an agreement that would, perhaps, increase the numbers of student participants in such program. These of which are elaborated in the succeeding section of this report.

Current Graduates

We sought to know: **“Have you ever graduated from Udacity before?”**

The answers are depicted below:



Only 7% of participants are Udacity graduates, and that tells us there is an interest amongst the students in obtaining knowledge through other certification programs provide by Udacity. This figure might well change (i.e. increase) should the college emphasis on the importance of such ventures in the near future.

Insights

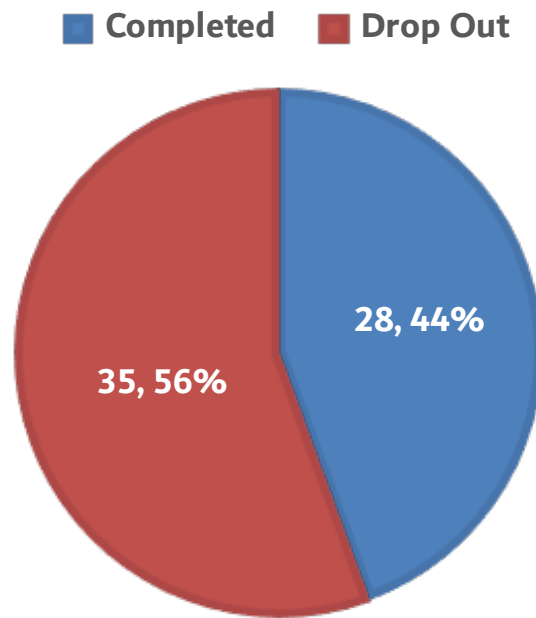
The table below summarizes the survey sample size and completion information:

Pre-application Survey Analysis

Started By	Completed By	Completion Rate %	Dropouts
63	28	44.44%	35

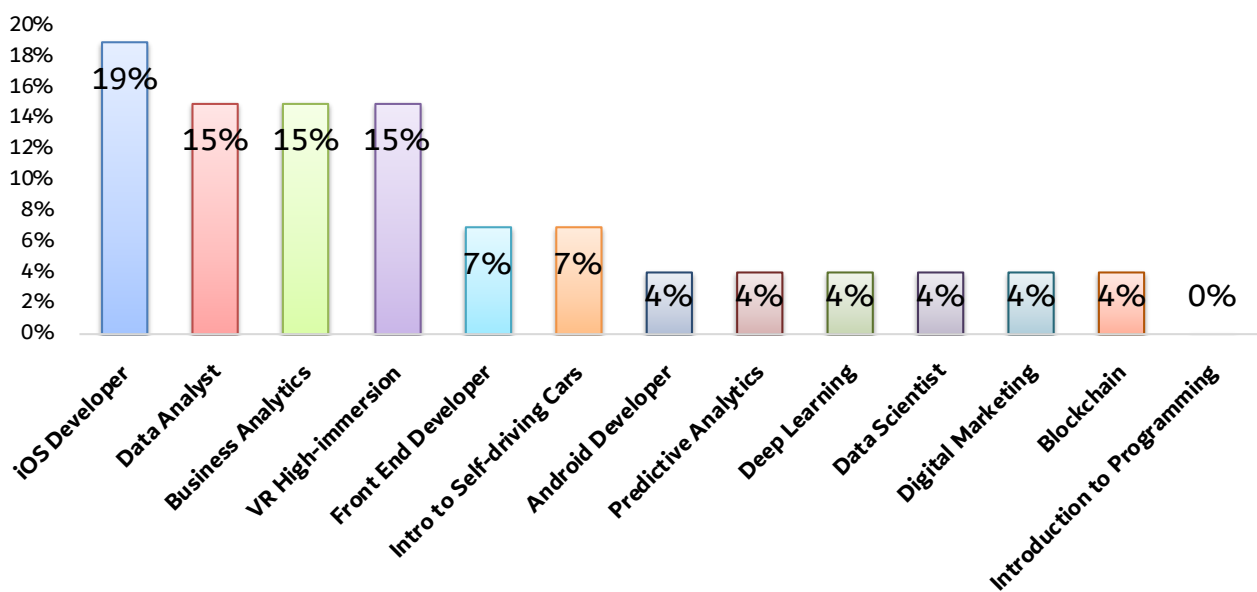
According to the data received by survey participants, only 28 students managed to provide us with valuable data. This tells us that the same size used in this analysis does not reflect the actual number of students in the college as we recommend every faculty member to help us in spreading the word on this initiative.

The following summaries the number of complete attempts (of this survey), and the number of dropouts (from completing the various questions of this survey:



The following chart provides an answer to what was asked at the end of the questionnaire:

“Which Nanodegree program are you mostly interested in applying for (that suits you best)?”



Of those who applied, 19% said they were mostly interested in enrolling into the **iOS Developer** Nanodegree program. The **Data Analyst** Nanodegree program came second with 15% interests, which matched both **Business Analytics** and **Virtual Reality (VR) High-immersion** Nanodegree programs. Surprisingly, none of the participants expressed interest in the **Introduction to Programming** Nanodegree program since the curriculum covered is “somewhat” redundant to what is currently taught in the college.

Post-application Survey

The PCA Committee, following the acceptance procedures announced by the academy, took the initiative in seeking confirmation from those whom have already applied to various Udacity programs. Responses from a fair number of student candidates were gathered, and the feedback from the candidates was collected via another (separate) survey.

Survey Deadline

A hard deadline for data gathering was set to Match 10th, 2019.

Survey Introductory Message

Similar to the previous survey, we assured our participants in the beginning that their participation is highly appreciated, as it is very important for us to learn their thoughts and aspirations in seeking further education, and in gaining professional certifications and recognition by the industry. We also assured them that the survey responses will be strictly confidential and data from this research will be reported only in the aggregate. The collected data entries were coded, and remain confidential.

Survey URL

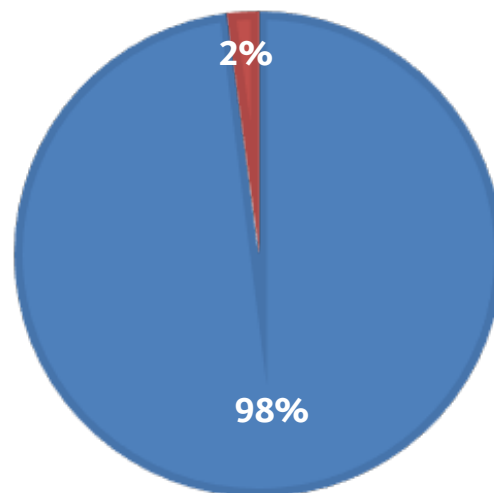
Designed using **QuestionPro**. See <<https://miskudacity.questionpro.com>>.

Survey Analysis

Academic Careers

The cart below identifies which level of education each student is currently at:

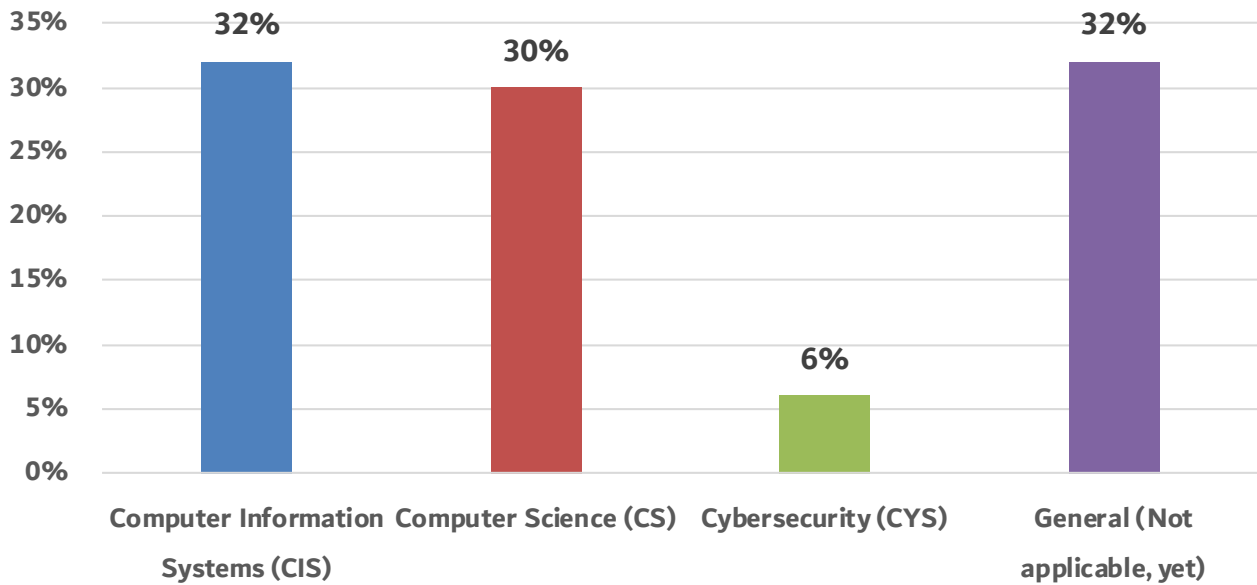
■ Undergraduate ■ Postgraduate



Only a few number of postgraduate students participated.

CCSIT Majors

The cart below identifies which department each student currently belongs to:

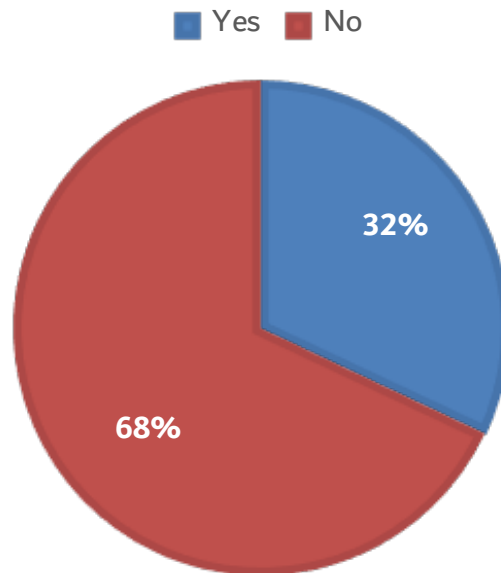


The **General** category reflects students whom have not specialized yet (pr rather, they did not reach their third year of studies).

Recently Applied Applicants

We asked: “**Have you recently applied to MiSK Academy for their Udacity scholarship offerings?**”

The results are shown below:

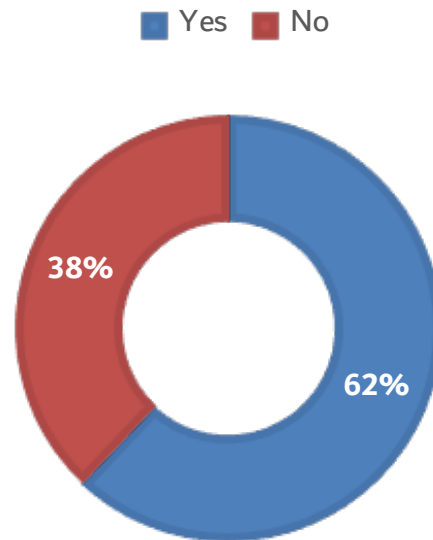


68.32% (i.e. 69 students) answered “No” leaving 31.68% (i.e. 32 students) saying “Yes.” This tells us that the awareness (in comparison with our Pre-application data collection time) increased and that the interest to the scholarships has risen higher.

Scholarship Acceptance

The most important question was: **“Have you been accepted into (at least) one of their Nanodegree program offerings?”**

Findings are summarized next:

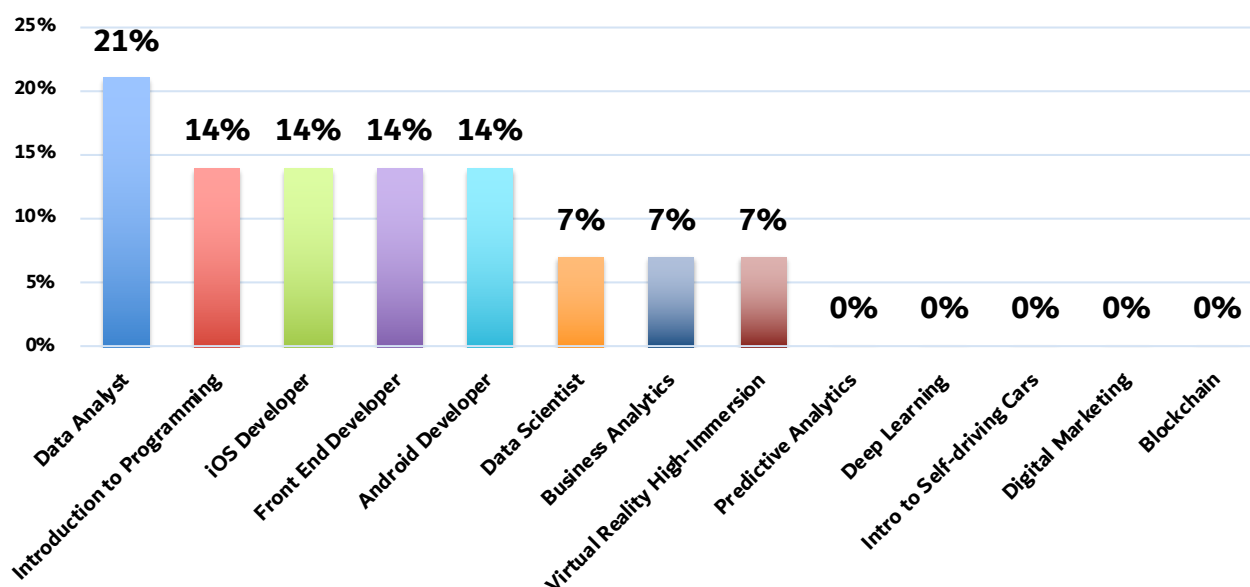


Astonishingly, 61.76% (i.e. exactly 21 students) got accepted into a number of Nanodegree programs for this Cohort. Unfortunately however, the remaining 38.24% (i.e. 13 students) were rejected due to reasons that are highlighted later. The acceptance rate seems quite promising as this finding suggest that our students seem to have the necessary skills needed to graduate from Udacity.

Accepted Udacity Programs

We asked those accepted: **“Which Udacity Nanodegree program have you been accepted into?”**

Their answers revealed the following:

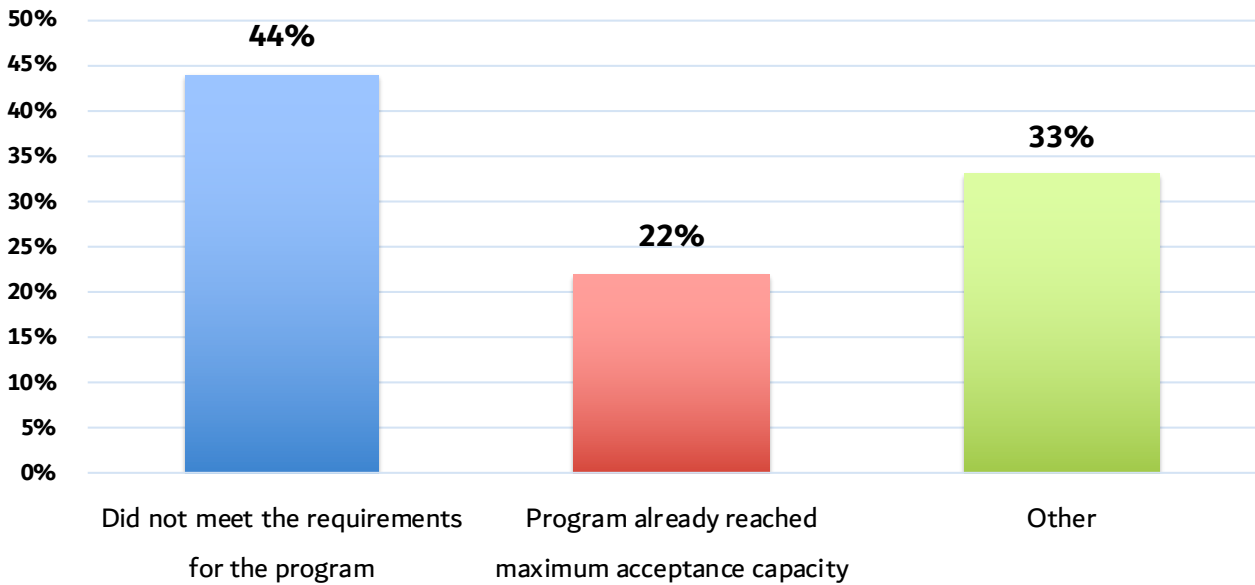


Out of the 14 students whom got accepted, 21.76% (i.e. exactly 3 students) joined the **Data Analyst** Nanodegree program. Following this we found 14.29% (i.e. 2 students) got accepted into the **Introduction to Programming, iOS Developer, Front End Developer** and **Android Developer** Nanodegree programs, each. Only, 7.14% (i.e. 1 student) got accepted into the **Data Scientist, Business Analytics** and **VR High-Emission** Nanodegree programs, leaving the rest out of the scholarships program.

Rejected Applicants

We asked those rejected: “**What is the main reason for MiSK Academy rejecting your application? (Choose your answer based on their official reply.)**”

Their answers revealed the following:



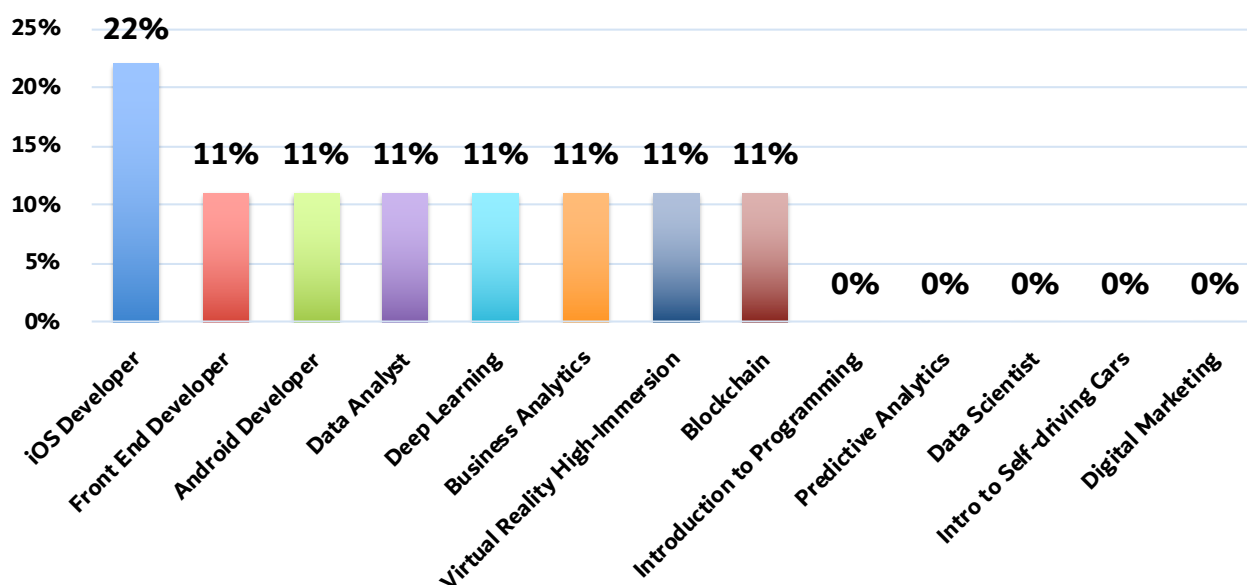
Out of the 9 students whom got rejected, 44.44% (i.e. 4 students) indicated that their applications did not meet the requirements for each program they applied for. Following this we found 22.22% (i.e. 2 students) reported that they did in fact meet the requirements, however due to the timing of their submissions programs have already reached their maximum acceptance capacities. each. The remaining 33.33% (i.e. 3 students) said that there are other reasons for their rejections by Udacity.

The following segment highlights the “left-out” programs (i.e. rejected programs).

Unaccepted Applications

We also asked those rejected: **“Which Udacity Nanodegree program have you been rejected for?”**

Their answers revealed the following:



Out of the 9 students whom got rejected, 22.22% (i.e. 2 students) failed to meet the requirements for the **iOS Developer**, Nanodegree program. Following this we found 77.77% (i.e. 1 student × 7) failing in the **Front End Developer**, **Android Developer**, **Data Analyst**, **Deep Learning**, **Business Analytics**, **VR High-immersion** and **Blockchain** programs, each. The reminder of the programs weren't mentioned in the data.

Insights

The table below summarizes the survey sample size and completion information:

Post-application Survey Analysis

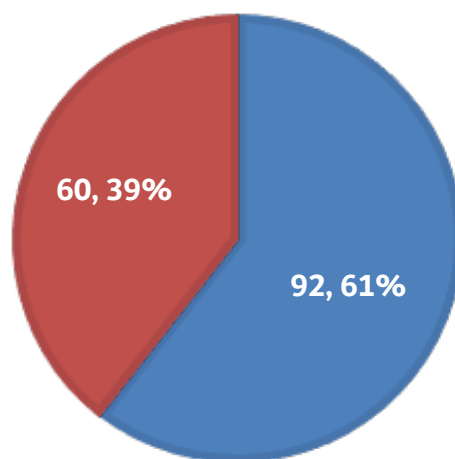
Started By	Completed By	Completion Rate %	Dropouts
152	92	60.53%	60

According to the data received by survey participants, only 23 students managed to provide us with reliable data (i.e. 14 passing the requirements and 9 failing them). This tells us that the same size used in this analysis does not reflect the actual number recoded for completion (i.e. 92 entries completed).

The following summaries the number of complete attempts (of this survey), and the number of dropouts (from completing the various questions of this survey:

COMPLETION / DROPOUT

■ Completed ■ Drop Out



Of those who applied (as mentioned in the Pre-application survey), 19% said they were initially interested in enrolling into the **iOS Developer** Nanodegree program. The **Data Analyst** Nanodegree program came second with 15% interests, which matched both **Business Analytics** and **Virtual Reality (VR) High-immersion** Nanodegree programs.

For future attempts, we recommend the following:

1. The college plans early orientation programs each semester, dedicated to cover the curriculum related to the Nanodegree programs that are more implant to the students. This will allow higher acceptance rates, should the students apply next time.
2. For any Nanodegree program that shows a good aliment percentage with exiting CCSIT curriculum, we constantly encourage the students in discussing their chances in enrolling in such programs. Examples include various topics e.g. **Artificial Intelligence, Machine Learning, Deep Learning, Blockchain, Full**

Stack (Web) Development, Data Science (which incorporates Machine Learning concepts in its core curriculum), **Business Analytics** (which is useful for beginner- and intermediate-level students), and others. These of which are taught as Nanodegree programs by Udacity and we can definitely encourage our students to look into such programs and consider them in the near future.

3. We attempt to establish agreements (with Misk Academy, and perhaps directly with Udacity) to guarantee a good number of (reserved) seats for our students, if applicable.

Evidence of Student Exemptions

Status

According to the feedback received from the Vice-dean of Academic Affairs (CCSIT) on **March 5, 2019**, no exemptions were ever applied.

Recommendations

- ✓ After the course alignment gains approval, the college can nominate which courses can be listed as “exemption possible.”
- ✓ The college can then conduct a workshop, explaining to students of this possibility, should they ever meet the criteria for getting advance standing on any eligible course.

List of Successful Alumni in Their Relevant PEs

Status

According to the feedback received from the Alumni and Career Planning Unit (CCSIT), no records can be found.

Recommendations

- ✓ Alumni and Career Planning Unit can coordinate with the PCA Committee and forward the required data (if existed in the future).
- ✓ Both Alumni and Career Planning and PCA Units can submit a proposal to streamline this process further e.g. by involving Graduation Project students to work on a proposed project to develop a useful tool for making this vision possible. Otherwise, ICT (the Internet and Communication Technology Unit of IAU) can suggest an alternative to make this task achievable.

MoUs With National and International Examining Bodies

Description

On **November 5th, 2018**, an MoU was signed with the **Red Hat Academy** <<https://www.redhat.com/en/services/training/red-hat-academy>>

Type of Agreement

Corporate (i.e. a strategic agreement for granting faculty and students with **FREE** educational material, and concessions for conducting Red Hat accreditation/certification exams).

Contact Person

Ms. Sandra Moldoveanu <smoldove@redhat.com>. Mobile <+491722185824>.

Commencing and End Dates

Commencement

November 5th, 2018.

End

November 4th, 2019.

Miscellaneous

This section is dedicated to report the various accomplishments and establishments other than those set by the PEI.

Slack Workspace

On **October 26, 2018**, the PCA Committee established its first-ever Slack workspace. The workspace was created under the alias “**pcalignment**” as <<https://pcalignment.slack.com>>.

Slack acts as a collaboration hub where our proactive active committee members can work together to help achieve our overarching tasks.

PCA Email Account

On **February 3, 2019**, an email account was created for the very first time (based on request) to serve the PCA Committee in facilitating the communications between all parties. The email is: <ccsit.pca@iau.edu.sa>.