Integrated Biomedical
Engineering & Health
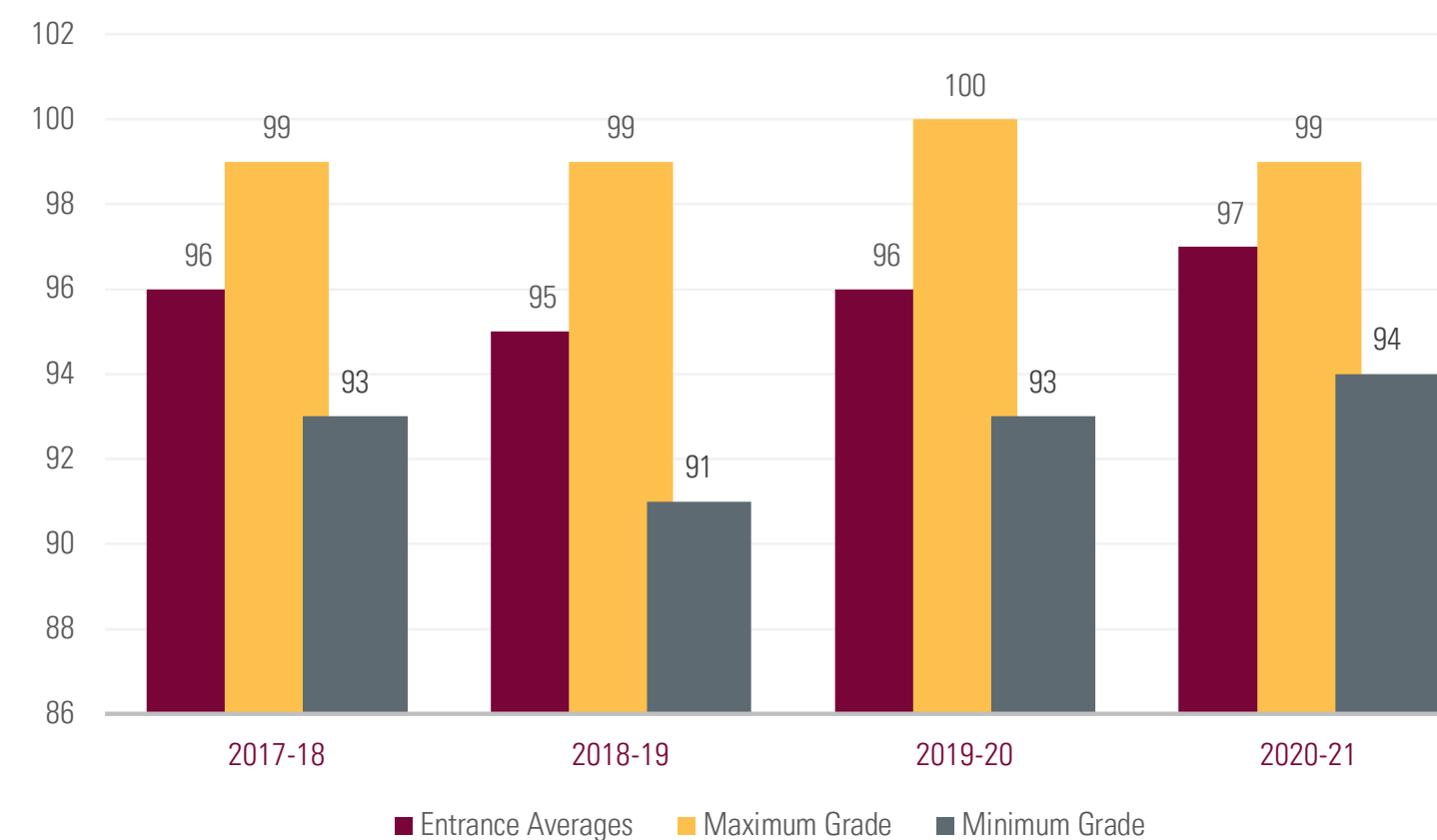Sciences Program | McMaster University

MAC IBIOMED
ANNUAL REPORT

2020-21 Academic Term

APPLICATIONS & ADMISSIONS

Applications & Admissions bar chart

Year	Applications	Offers Accepted
2017-18	921	124
2018-19	1136	152
2019-20	1233	154
2020-21	1489	182

■ Applications ■ Offers Accepted

ENTRANCE AVERAGES

Entrance Averages bar chart

Year	Entrance Averages	Maximum Grade	Minimum Grade
2017-18	96	99	93
2018-19	95	99	91
2019-20	96	100	93
2020-21	97	99	94

■ Entrance Averages ■ Maximum Grade ■ Minimum Grade
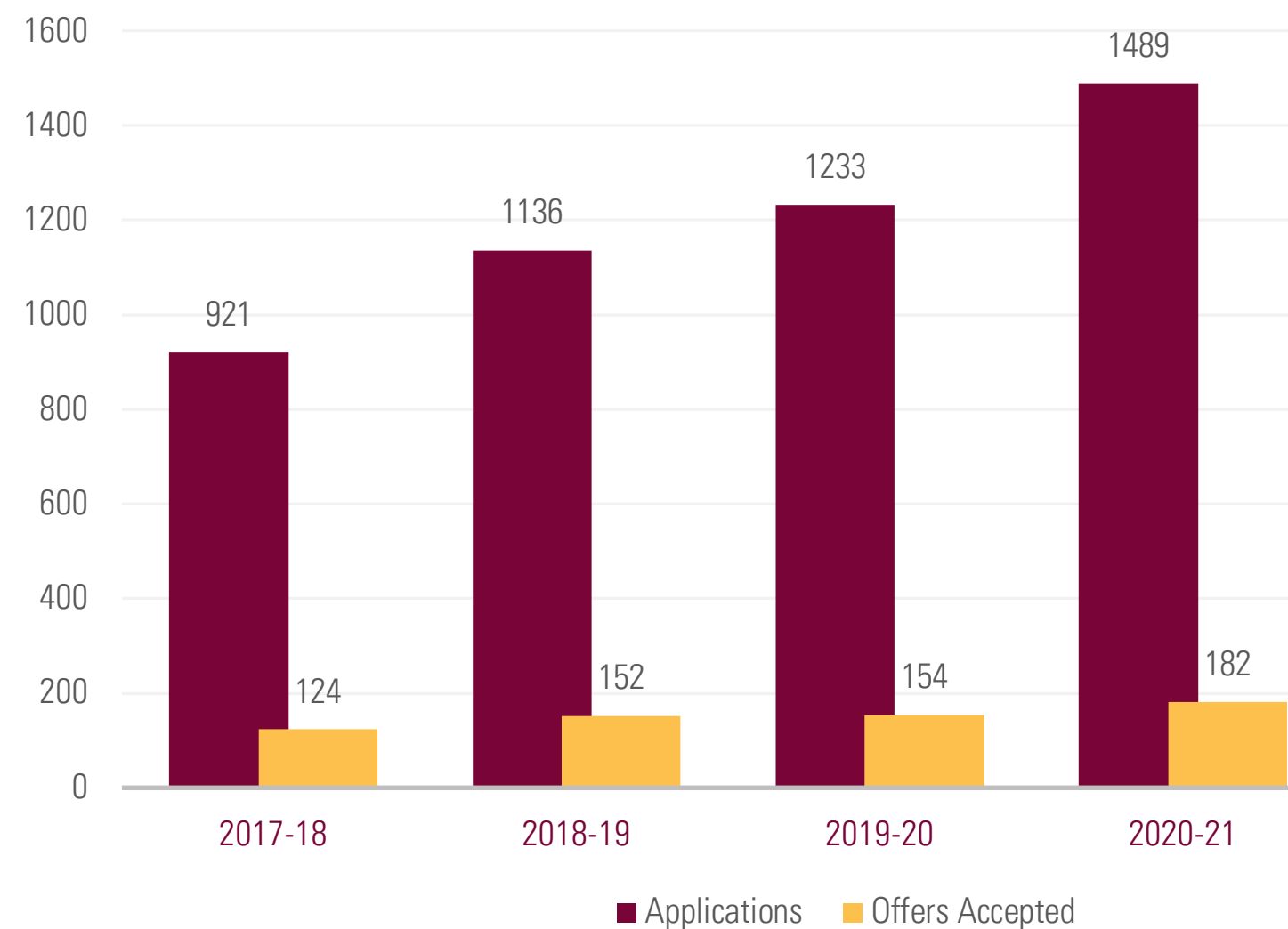
SUBJECT OF MAJOR INTEREST UPON ENTRANCE

Bar chart — BME *:
- 2017-18: 73
- 2018-19: 74
- 2019-20: 90
- 2020-21: 117

HESE **:
- 2017-18: 51
- 2018-19: 78
- 2019-20: 57
- 2020-21: 65

Legend: 2017-18, 2018-19, 2019-20, 2020-21
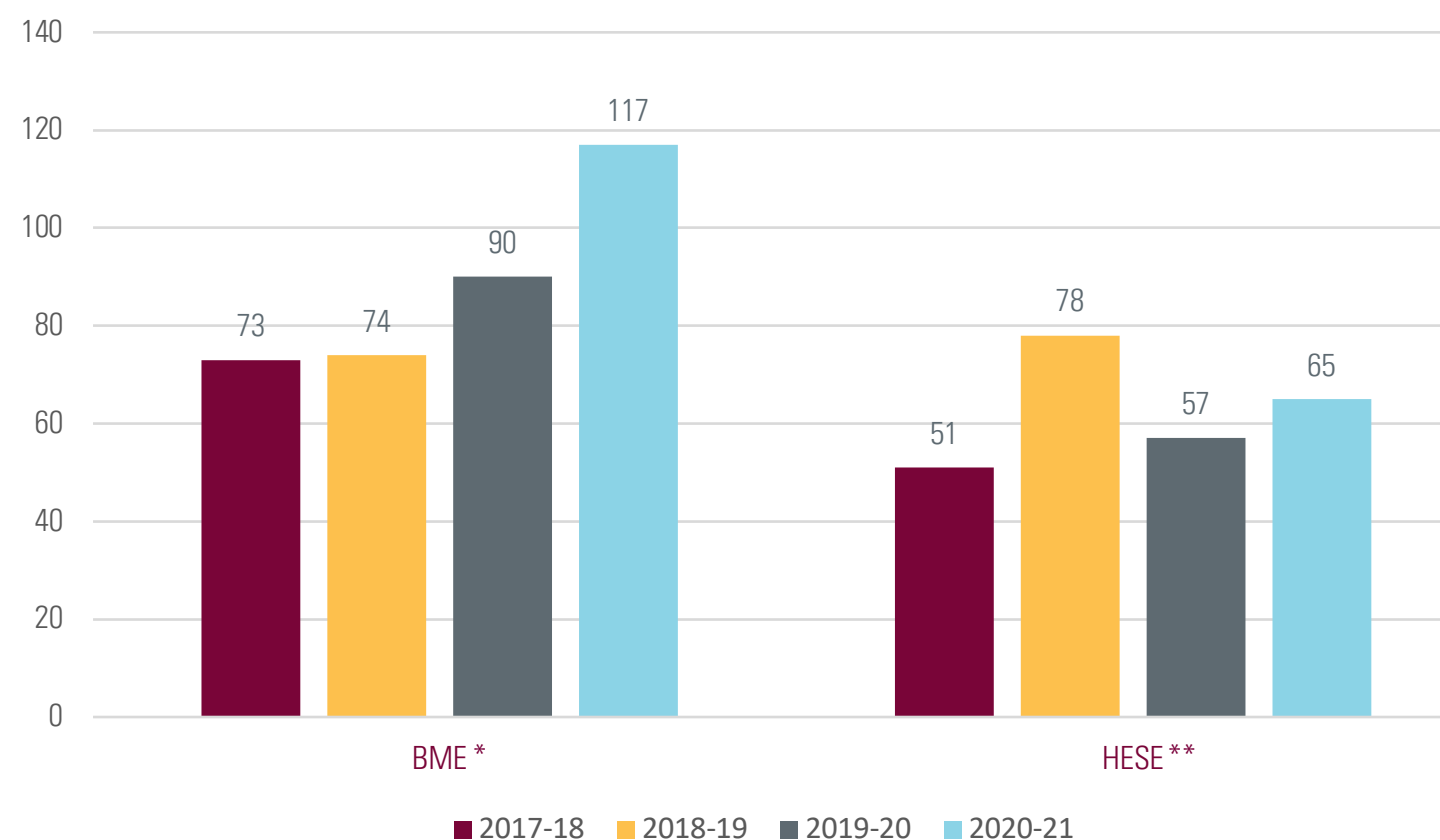
*Biomedical Engineering **Health, Engineering Science and Entrepreneurship

UNDERGRADUATE ENROLMENT HEADCOUNT

Bar chart:
- 2017-18: 119
- 2018-19: 144
- 2019-20: 146
- 2020-21: 177
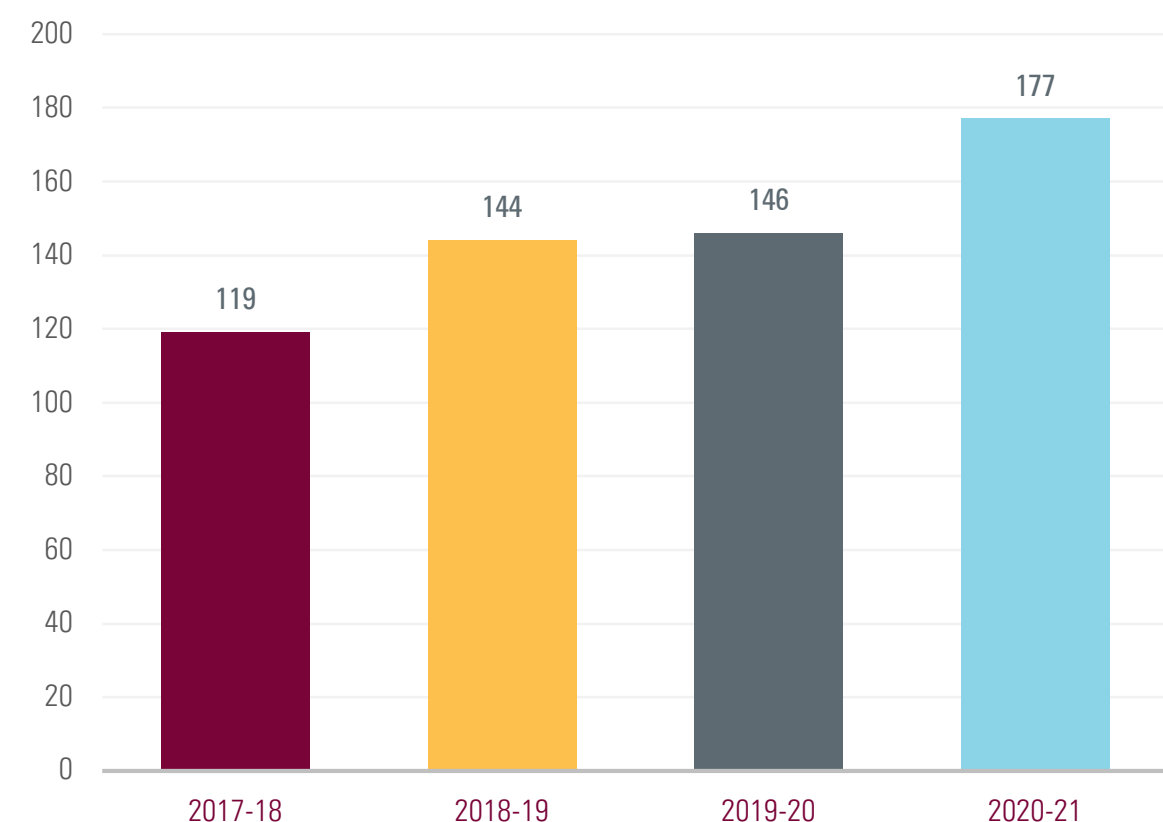
LEVEL I STUDENT GENDER RATIO

	2017-18	2018-19	2019-20	2020-21
Female	67	77	92	99
Male	53	75	59	77
Unreported	1	0	1	1

LEVEL II PROGAM ALLOCATION

Program	2020-21
Chemical & BME	14
Civil & BME	0
Electrical & BME	28
Engineering Physics & BME	12
Materials & BME	8
Mechanical & BME	32
Mechatronics & BME	31
Software & BME	20
HESE	31

LEVEL I CO-OP PROGRAM SELECTION

Chart: Level I Co-op Program Selection

| Year	Co-op Option	Non Co-op Option
2017-18	100	21
2018-19	133	6
2019-20	133	10
2020-21	163	13
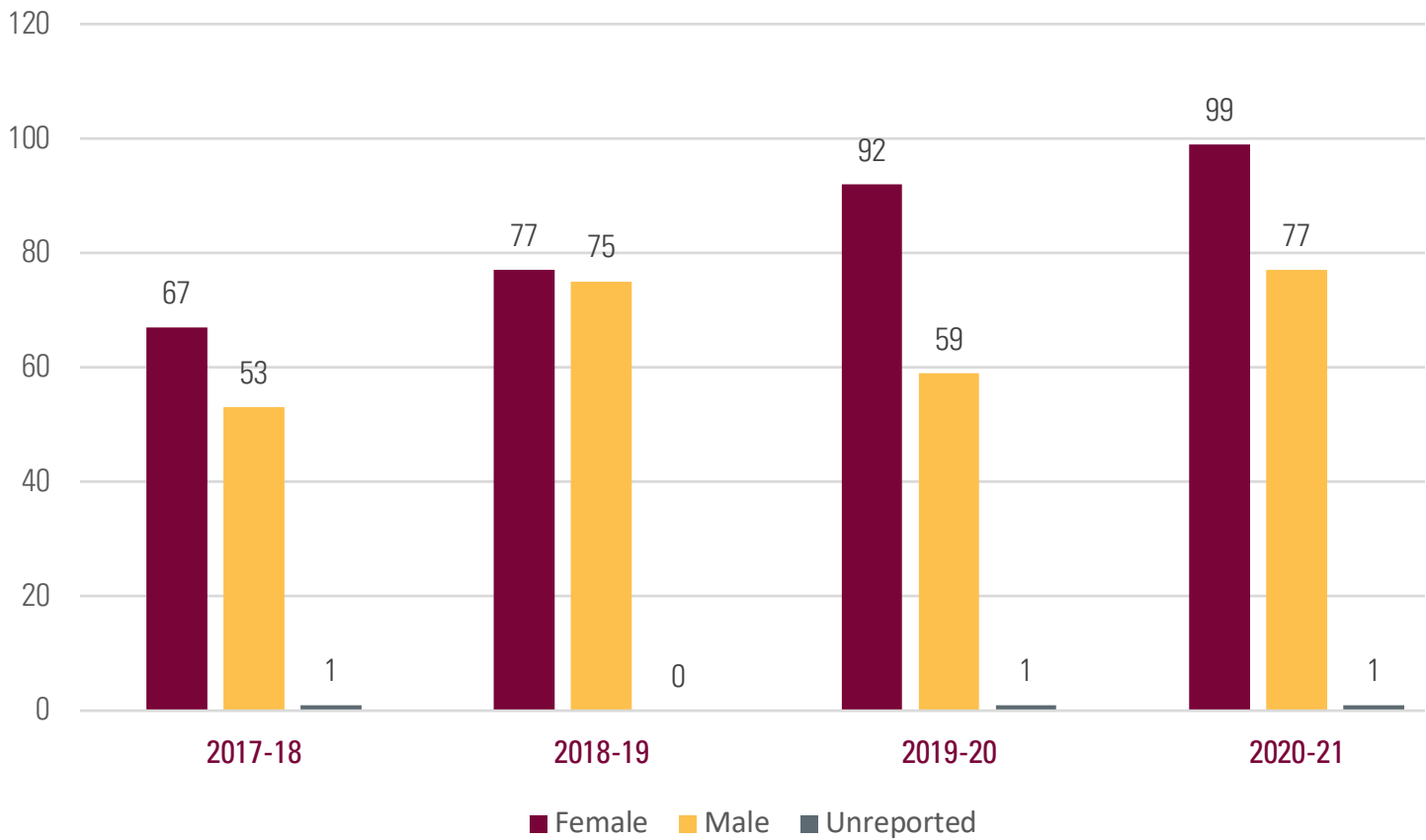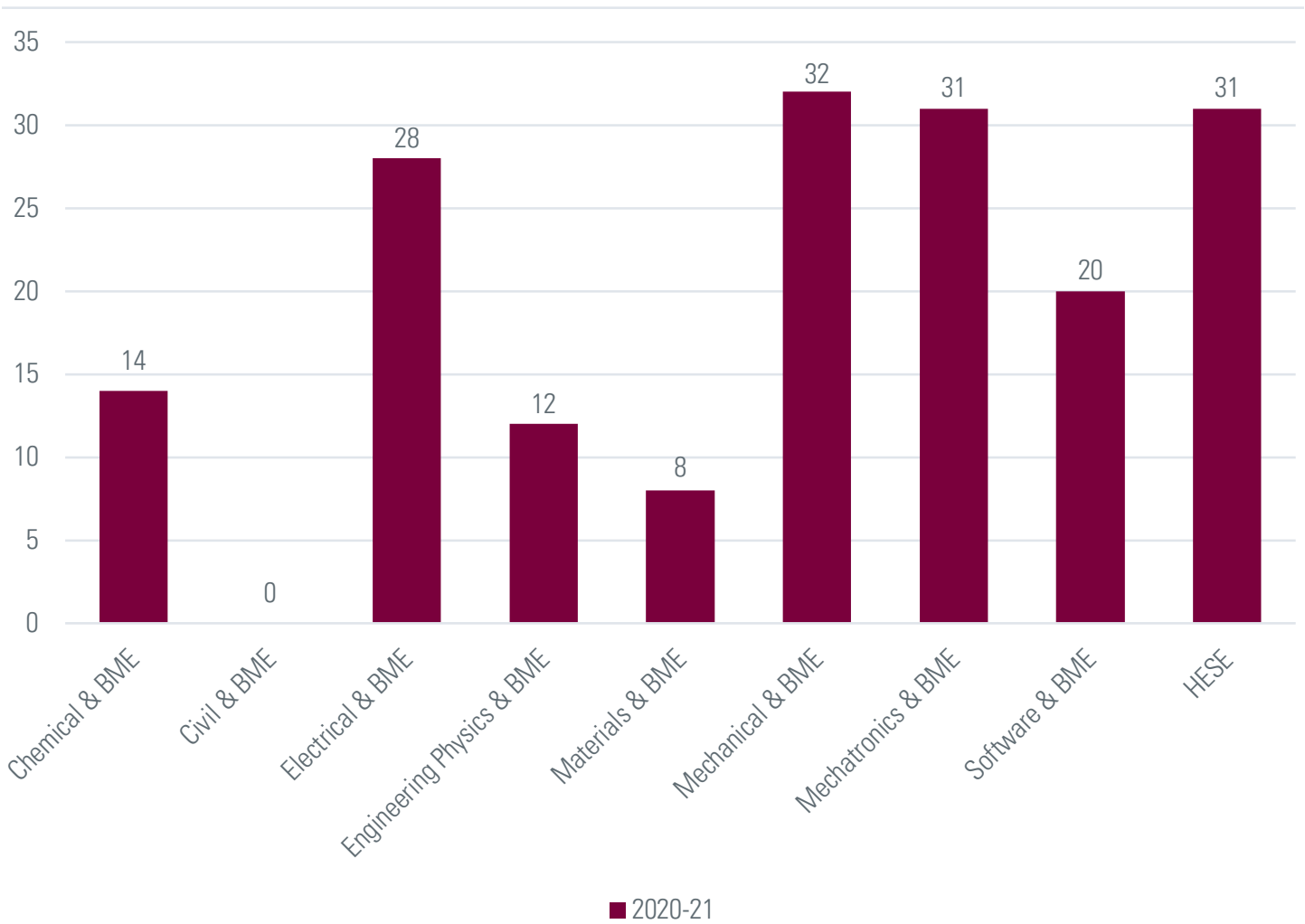
■ Co-op Option   ■ Non Co-op Option
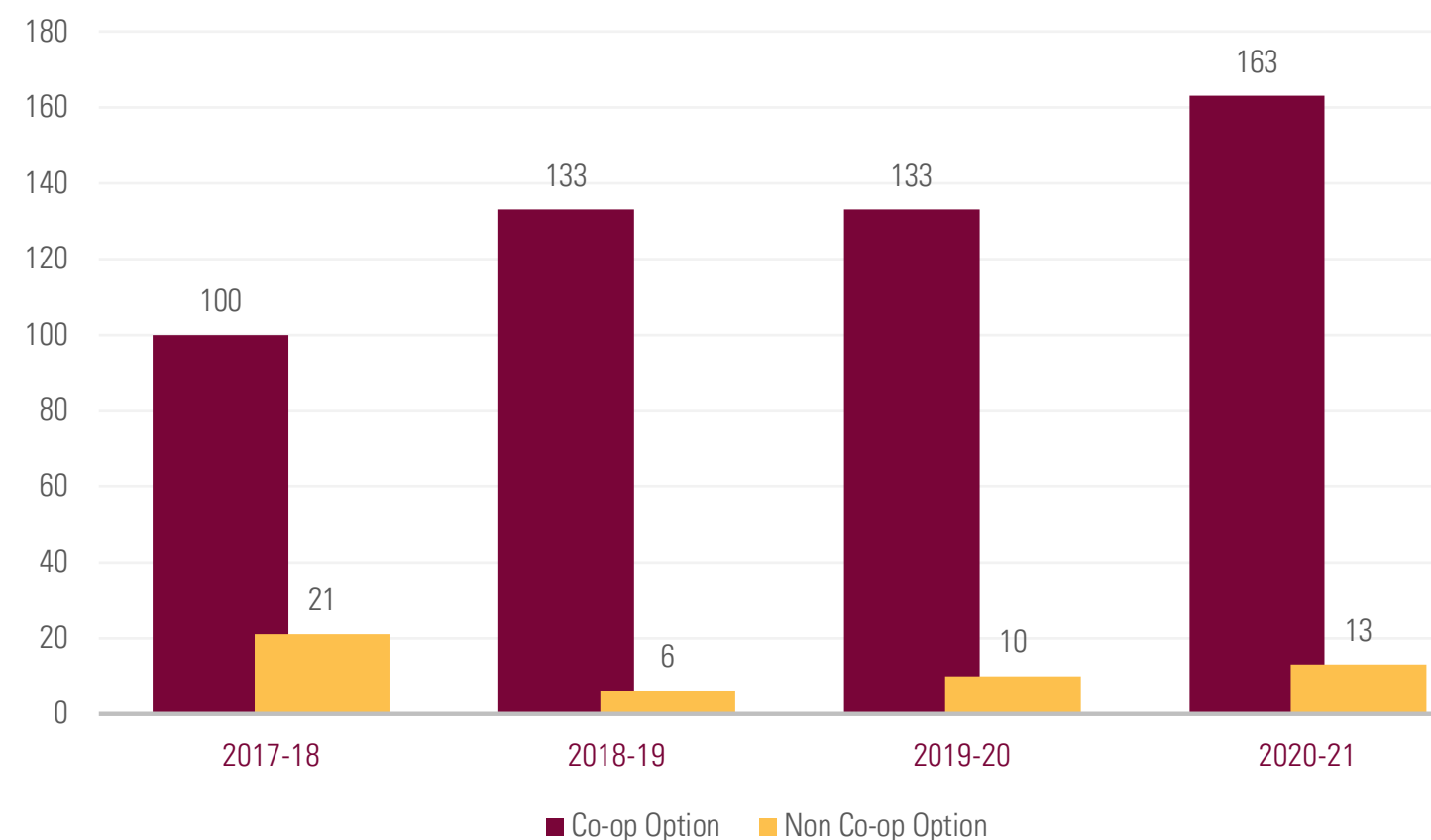
STUDENT ACHIEVEMENTS

David Chung (IBEHS I) received the **TD Scholarship for Community Leadership** (valued at $70,000) and the **Horatio Alger National Entrepreneurial Scholarship** (valued at $10,000) among several others.

Twelve iBioMed students received the 2020 Summer Research Experiene Award
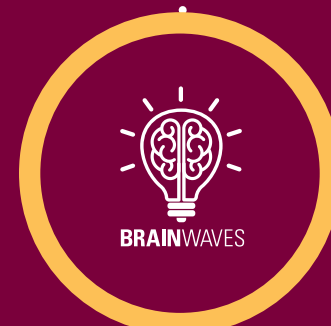
iBioMed launched Brainwaves, the official podcast of the iBioMed Program. iBioMed students develop the content, host episodes, secure and interview guests, and edit each episode.

STUDENT ACHIEVEMENTS

Lianna Genovese (Level IV, Mechanical & BME) won the Global Innovation Award and National James Dyson Award for her invention Guided Hands.

Rebecca Sikkema (Level II, Materials & BME) published a review paper on Advanced Engineering Materials.

Monica Banayoty (Level IV, HESE) was selected as a Wilson Scholar

STUDENT ACHIEVEMENTS

Daniel D'Souza (Level III, HESE) received the McMaster Student Union (MSU) Teaching Award for the Winter 2021 term.

Andrew D'Elia (Level III, Materials & BME) was second-author on the review paper "Electron Microscopy Imaging Applications of Room Temperature Ionic Liquids in the Biological Field—A Review" in publication ChemBioChem.

John Milkovich (Level III, HESE) was first-author of a paper on Restructuring Skin Cancer Care in Ontario.

STUDENT ACHIEVEMENTS
in numbers!

19
The number of iBioMed students that made the **Provost's Honour Roll***

3
The number of iBioMed students accepted into **medical school.**

2
The number of iBioMed students accepted into **graduate school.**

*****Students are awarded the Provost's Honour Roll when an average of 12.0 is achieved.

IBIOMED SOCIETY HIGHLIGHTS

The iBioMed Society hosted the "Lecturer Series" where instructors, entrepreneurs, clinicians and researchers from various backgrounds gave talks about their research and career paths.

1P10 exam review sessions were held, and students were provided with a guided review of core concepts covered throught the course. Students also had the opportunity to ask their TAs course-related questions.

In collaboration with the B-Tech Association, biomedical and biotech industry professionals and students came together for an industry networking event.

Several social events such as Trivia Night, Games Night, E-Sports & Online Board Games were held giving students an opportunity to socialize and make new friends.

IBIOMED COMMUNITY HIGHLIGHTS
Events!

iBioMed monthly themed open houses were held virtually this year. Event themes included Halloween Murder Mystery, Virtual Paint Workshop, Fitness Februrary and more!

Upper-year student-led info sessions gave first-year iBioMed students an opportunity to ask questions about stream options, co-op, student projects and clubs and teams.

On April 13th, IBEHS 1P10 students presented the **innovative projects** they worked on throughout the school year.
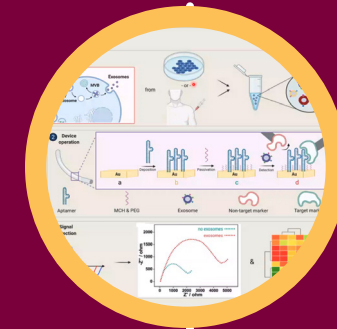
IBIOMED COMMUNITY HIGHLIGHTS
Events!

IBEHS 2E06
PROJECT SHOWCASE

Level II HESE students **worked with industry healthcare professionals** to develop solutions to healthcare needs. Students' solutions were then presented during a virtual presentation that showcased their innovative designs.

iBioMed spearheaded Design Like a Girl, an event for female-identifying high school students. **This two-day design-a-thon introduced attendees to coding, design thinking, sensors and more.** Attendees then worked in teams to develop solutions to real-world healthcare problems and pitched their solutions to a panel of iBioMed faculty and student judges.

Incoming iBioMed students participated in **CONNECT, a week-long summer skills workshop** where students are introduced to MATLAB, Python, Raspberry Pi and more!

IBIOMED COMMUNITY HIGHLIGHTS
Ambassador Program!

Brainwaves, the official podcast of the iBioMed program was launched. The content for this podcast is developed and edited by iBioMed Ambassadors.
Listen at https://anchor.fm/mcmasteribiomed

A content Creation Committee was established as part of the Ambassador Program. The content created by this committee is developed by students for students.
Read one of the committee's articles here: https://www.eng.mcmaster.ca/ibiomed/news/kids-are-alright-inside-view-ibiomed-on-line-student-experience

Virtual Ambassador Office Hours were offered, and iBioMed students had an opportunity to connect with their fellow peers to discuss classes, exams, program selection and to network.

IBIOMED COMMUNITY HIGHLIGHTS
New Course!

The iBioMed program is excited to introduce a new first year health sciences course, **IBEHS 1EP6 Entrepreneurship in Biomedical Innovation: From Bench to Market.** This course uses project-based learning to explore the latest in biomedical research, technology and innovation and pushes students to create pragmatic solutions to important healthcare problems.

Students work in small teams to **study specific human diseases, from diabetes to Alzheimer's,** and consider these diseases from a biological, clinical and socioeconomic perspective. By taking an interdisciplinary approach, students come out of the course with an appreciation of the 'big picture' and the important considerations when looking to go from idea to impact. Working closely in these small teams is also a great way to make friends!

This new course will be taught by Dr. Anna Korol, Assistant Professor, Department of Medicine, Division of Innovation and Education and Dr. Julian Yabut.

IBIOMED FAMILY UPDATES

Dr. Carol Bassim
The iBioMed Program is excited to welcome Dr. Bassim to the iBioMed family. Dr. Bassim will be the instructor for IBEHS 4C03: Statistical Methods in Biomedical Engineering.

Dr. Kenneth Owen
The iBioMed program is very excited to also welcome Dr. Owen to the family. Dr. Owen will be the instructor for IBEHS 4E06: Health, Engineering Science and Entreprenruship III.

Andrej Rusin
After completing his MSc. from the Department of Biology at McMaster, Andrej joined the iBioMed family as its Laboratory Technician.

Dayna Wingfield
Dayna received her BSc. from Wilfrid Laurier and her BEd from The University of Waterloo. Before joining iBioMed, Dayna worked in London, England as a Curriculum Lead for high school science courses, and as a secondary teacher.

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