

REPORT OF THE VALUE-ADDED COURSE ON

Academic Writing and Understanding the Ecosystem of Research

Conducted between 16-26 August 2022



ORGANISED BY

The Incubation Centre, St. Edmund's College, Shillong

In collaboration with

**The Internal Quality Assurance Cell (IQAC), St. Edmund's College,
Shillong, and the Department of Biotechnology, St. Edmund's
College, Shillong**

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ACKNOWLEDGEMENTS

This Value Added Course — the first of its kind held in St. Edmund's College, Shillong — would not have come to fruition had it not been for the guidance and *enthusiasm* of **Dr. Samrat Adhikari**, Head, Department of Biotechnology, St. Edmund's College, Shillong.

I am also thankful for the support of **Br. (Dr.) Simon Coelho**, Secretary, Governing Body, St. Edmund's College, Shillong.

The two external speakers — **Lucas D'souza, Ph.D.** (Postdoctoral Research Associate I, Department of Immunology, University of Arizona) and **Ms. Suzanna Fonseca** (Senior Managing Editor, Cactus Communications) — delivered well-received talks, which accommodated the students' rudimentary understanding of *research* in the Life Sciences and motivated them to explore the realm of journal-based publishing.

Technical and logistical support, provided by **Ms. Priya Paul**, Technical Assistant, St. Edmund's College, Shillong, was invaluable.

The dedication of the **students** of the Department of Biotechnology, St. Edmund's College, Shillong, in attending a course which was external to their syllabus-regimented learning, is highly appreciated.

GENERAL INFORMATION

- a. **Title of the Course:** Academic Writing and Understanding the Ecosystem of Research
- b. **Total Contact Hours:** 10
- c. **Date of Approval:** 5 August 2022
- d. **Opening of registration process:** 8th August 2022
- e. **Closing of Registration Process:** 14th August 2022
- f. **Mode of Registration:** Online (Google Forms)
- g. **Date for Commencement of the Course:** 16 Aug 2022
- h. **Conclusion of the course:** 26th Aug 2022
- i. **Duration:** 16 hours
- j. **Total No of Students Enrolled:** 28
- k. **Registration Fees:** None
- l. **Course Coordinator:** Dr. Oliver Nelson Gonsalves, Research Facilitator, St. Edmund's College
- m. **External Speakers Involved:**

Dr. Lucas D'souza, Postdoctoral Research Associate I, Department of Immunobiology,
The University of Arizona College of Medicine

Ms. Suzana Fonseca, Senior Managing Editor, Cactus Communications

COURSE STRUCTURE

The subsequent sub-section will highlight various aspects of the course, such as Course Description, the Programme, and the profiles of the external speakers.

3.1 Course Description:

Research — especially at the undergraduate level — has become the focus of capability-enhancement activities within Indian universities. It is being promoted to enhance the skill sets of Indian graduates and prepare them for opportunities in higher education and industry. Such an initiative not only requires familiarity with contemporary research practices but also an understanding of the “ecosystem of research” (National Education Policy 2020, 45).

Conceptualised in July 2022, this course five-module Value-Added Course (VAC) was designed to familiarise the students of the Department of Biotechnology, St. Edmund’s, Shillong, with elementary research etiquettes and enlighten them on the accepted process of publishing their research

3.2 Programme of the Course:

This course was divided into five modules. Two of these modules were managed by external subject-matter experts. The programme of the course is listed in the table below:

Module	Title	Presenter	Hours	Date
I	<i>Basics of Academic/Research Writing</i>	Dr. Oliver Nelson Gonsalves	2	16 August, 2022
II	<i>What is Plagiarism?</i>	Dr. Oliver Nelson Gonsalves	2	17 August, 2022
III	<i>Grasping the Craft of Scientific Communication</i> ¹	Dr. Oliver Nelson Gonsalves	2	18 August, 2022
IV	<i>Avoiding the Pitfalls of Research Misconduct</i>	Dr. Lucas D’souza	2	19 August, 2022
V	<i>Publishing the Right Way</i> ²	Ms. Suzana Fonseca	2	26 August, 2022

Apart from the five two-hour modules, six hours were allotted for the assessment of the students’ assignments and their feedback on the conduct and *content* of the course. **All assignments received feedback** via the Learning Management System (Linways).

¹ The Research Facilitator felt that the contents of the previous module on, ‘Plagiarism’, were not absorbed well by the student and, hence, carried forward the discussion on Plagiarism in the time allotted for Module III. Thus, Module III was not taught in this course.

² First scheduled for 20 August, 2022, this module had to be re-scheduled to 26 August, 2022, due to the unavailability of the presenter.

3.3 Mode of conduct of the Course:

The course was held online (on Zoom), over the period of five working days. The duration of each module was two hours, with the total course comprising ten contact hours.

Online modules were preferred over offline classes for three reasons:

- Class schedules and practicals required that the conduct of this course be carried *after* regular working hours and, hence, the modules were conducted from 6 – 8 p.m.
- The festival of *Janmashtami* was observed on 18th August, 2022, which was also classified as a holiday in college. It was felt that students could join the module scheduled for that evening *after* engaging in festivities during the day.
- Weakness of the backups for the internet connection on the College premises. Backups, especially for the internet, take considerable time to kick in. Modules were hosted by the Research Facilitator (on Zoom) from his residence.

Recordings of all modules are available on Linways.

3.4 Grading Policy:

Students were assigned the following grades, based on the complete course assessments.

Marks	Final Grade
90-100	A+
80-90	A
70-80	B+
60-70	B
50-60	C+
40-50	C
Below 40	Needs improvement

3.5 Profiles of the External Subject-Matter Experts

Two out of the five modules were managed by external subject-matter experts. These experts were personal connections of the Research Facilitator, who felt that the experience that each of these experts had gained in their own fields of expertise would bridge any gap in the subject-specific content of the course. Both experts have extensive experience in the field of Biotechnology; although this experience differed in terms of their professional goals.

The profiles of the two subject-matter experts are shown below:

- Dr. Lucas D'souza**, Postdoctoral Research Associate I, Department of Immunobiology, The University of Arizona College of Medicine



Lucas D'souza received his bachelor's and master's degrees from the University of Mumbai and went on to complete his Ph.D. from the National Institute of Immunology in New Delhi in 2016. He joined the lab in 2017 and since has been working to define why certain antibody specificities dominate an immune response to viral infections, and how the plasma cells that produce these antibodies persist.

2. **Ms. Suzana Fonseca**, Senior Managing Editor, Cactus Communications



Suzana Fonseca has a background in Biotechnology and has been with Editage for almost 7 years. She has extensive experience supporting ESL authors to help them make their research known to the world. She has rich experience in editing manuscripts from various fields such as molecular biology, pharmacology, toxicology, genetics, animal behavior, marine biology, and ecology. She has mentored and trained several senior editors and has played a significant role in setting up a team of managing editors, 70 in-house editors, and 800+ freelance editors and scientific reviewers, who have distinguished themselves in their respective fields of research in epidemiology, nursing, cardiology, plastic surgery, radiology, neuroscience, oncology, genetics, microbiology, taxonomy, pharmacokinetics, drug discovery, regulatory science, agricultural science, ecology, botany, and animal and marine science. She currently oversees delivery and quality for the Medicine, Life Sciences, and Earth and Environmental Science teams.

The two modules managed by the subject-matter experts were based on the two core components of this course — *research* and *publication*. Both presenters used PowerPoint presentations to communicate effectively with their audience.

LIST OF REGISTERED PARTICIPANTS

Serial Number	Student ID	Full Name	Semester
1	20/BIOT/402	Lavinia Warbah	V
2	20/BIOT/415	Fulbertstar Mawkhiew	V
3	20/BIOT/422	Cassiana Pohshna	V
4	20/BIOT/426	Phidarikynti Thangkhiew	V
5	20/BIOT/429	Suman Basumatary	V
6	20/BIOT/406	Mridushmita Das	V
7	20/BIOT/416	Markynti Wahlang	V
8	20/BIOT/424	Jasmine Jamatia	V
9	20/BIOT/427	Abantika Goswami	V
10	20/BIOT/439	Rohini Gautam	V
11	20/BIOT/409	Antarleena Bhattacharjee	V
12	20/BIOT/417	Pynbianglang Dkhar	V
13	20/BIOT/425	Rebecca Dolma L Marbaniang	V
14	20/BIOT/428	Barsha Rani Bora	V
15	21/BIOT/403	M Lhingneivah Haokip	III
16	21/BIOT/413	Lhingjoujam Misao	III
17	21/BIOT/420	Susmita Das	III
18	21/BIOT/428	Shimran Saigal	III
19	21/BIOT/444	Swagata Dutta	III
20	21/BIOT/404	Lisia Singpho	III
21	21/BIOT/414	Vanshika Jasrasaria	III
22	21/BIOT/421	Tapunishtha Borah	III
23	21/BIOT/429	Bhaswati Chakraborty	III
24	21/BIOT/402	Jiphila Roidill Shabong	III
25	21/BIOT/408	Ankita Hazarika	III
26	21/BIOT/416	Nairity Goswami	III
27	21/BIOT/422	Rajdeep Paul	III
28	21/BIOT/443	Arbanylla War	III

ATTENDANCE

Sr. No.	Student ID	Full Name	Semester	Total Hours	Attended	Attendance (%)
1	20/BIOT/402	Lavinia Warbah	V	10	8	80
2	20/BIOT/415	Fulbertstar Mawkhiew	V	10	4	40
3	20/BIOT/422	Cassiana Pohshna	V	10	4	40
4	20/BIOT/426	Phidarikynti Thangkhiew	V	10	8	80
5	20/BIOT/429	Suman Basumatary	V	10	8	80
6	20/BIOT/406	Mridushmita Das	V	10	8	80
7	20/BIOT/416	Markynti Wahlang	V	10	6	60
8	20/BIOT/424	Jasmine Jamatia	V	10	6	60
9	20/BIOT/427	Abantika Goswami	V	10	6	60
10	20/BIOT/439	Rohini Gautam	V	10	8	80
11	20/BIOT/409	Antarleena Bhattacharjee	V	10	4	40
12	20/BIOT/417	Pynbianglang Dkhar	V	10	8	80
13	20/BIOT/425	Rebecca Dolma L Marbaniang	V	10	8	80
14	20/BIOT/428	Barsha Rani Bora	V	10	4	40
15	21/BIOT/403	M Lhingneivah Haokip	III	10	10	100
16	21/BIOT/413	Lhingjoujam Misao	III	10	10	100
17	21/BIOT/420	Susmita Das	III	10	8	80
18	21/BIOT/428	Shimran Saigal	III	10	6	60
19	21/BIOT/444	Swagata Dutta	III	10	8	80
20	21/BIOT/404	Lisia Singpho	III	10	10	100
21	21/BIOT/414	Vanshika Jasrasaria	III	10	8	80
22	21/BIOT/421	Tapunishtha Borah	III	10	8	80
23	21/BIOT/429	Bhaswati Chakraborty	III	10	8	80
24	21/BIOT/402	Jiphila Roidill Shabong	III	10	8	80
25	21/BIOT/408	Ankita Hazarika	III	10	10	100
26	21/BIOT/416	Nairity Goswami	III	10	8	80
27	21/BIOT/422	Rajdeep Paul	III	10	8	80
28	21/BIOT/443	Arbanylla War	III	10	6	60

ASSIGNMENTS AND RESULTS

Assignments were disseminated after every module using the Learning Management System (LMS). These were designed by the Research Facilitator to test the students on their understanding of the topics discussed during the various modules. All assignments were based on the *practical aspects* of course.

6.1 Methodology of evaluation:

Each assignment carried five marks. In total, the four assignments were worth 20 marks. Marks from ALL FOUR assignments were used to obtain a final percentage score. Percentage of marks were converted to a grade. Refer to section 3.4 for this course's grading policy.

Thus, if a student scored 18/20, then the final percentage was calculated as 90% (18/20x100).

Only students who had scored a minimum of 40% and above are eligible for certificates (refer to Appendix B).

6.2 Composition of assignments:

Students were expected to upload on to the LMS their answers to FOUR assignments. Since the relevance of publications is far less at the undergraduate-level, assignments focused on testing research and analytical skills. They were given one week to submit (upload) their answer scripts, which were evaluated by the Research Facilitator. Difficulty levels of each assignment *decreased* over the duration of the course. Thus, Assignment 1 was the toughest, while Assignment 4 was the easiest.

6.3 Results:

The details of the marks scored and the final percentage attained is listed in the table below:

Sr. No.	Student ID	Full Name	A I	A II	A III	A IV	% of Marks	Grade
			5	5	5	5		
1	20/BIOT/402	Lavinia Warbah	1	5	3	5	70	B+
2	20/BIOT/415	Fulbertstar Mawkhiew	2	4	0	0	30	Needs improvement
3	20/BIOT/422	Cassiana Pohshna	3	3	1	4.5	57.5	C+
4	20/BIOT/426	Phidarikynti Thangkhiew	2	3	2	4.5	57.5	C+
5	20/BIOT/429	Suman Basumatary	2	4	2.5	5	67.5	B
6	20/BIOT/406	Mridushmita Das	2	3	4	5	70	B
7	20/BIOT/416	Markynti Wahlang	0	0	0	0	--	--
8	20/BIOT/424	Jasmine Jamatia	2	3	1	4.5	52.5	C+
9	20/BIOT/427	Abantika Goswami	2	3	0	5	50	C+
10	20/BIOT/439	Rohini Gautam	2	1	2.5	5	52.5	C+

11	20/BIOT/409	Antarleena Bhattacharjee	2	4	3.5	5	72.5	B+
12	20/BIOT/417	Pynbianglang Dkhar	2	3	0	5	50	C+
13	20/BIOT/425	Rebecca Dolma L Marbaniang	0	0	0	0	--	--
14	20/BIOT/428	Barsha Rani Bora	2	3	1	5	55	C+
15	21/BIOT/403	M Lhingneivah Haokip	3	3	3.5	5	72.5	B+
16	21/BIOT/413	Lhingjoujam Misao	3	3	0	5	55	C+
17	21/BIOT/420	Susmita Das	2	2	5	5	70	B+
18	21/BIOT/428	Shimran Saigal	2	2	5	5	70	B+
19	21/BIOT/444	Swagata Dutta	0	0	0	0	--	--
20	21/BIOT/404	Lisia Singpho	2	4	3.5	0	47.5	C
21	21/BIOT/414	Vanshika Jasrasaria	2	4.5	5	5	82.5	A
22	21/BIOT/421	Tapunishtha Borah	0	0	0	0	--	--
23	21/BIOT/429	Bhaswati Chakraborty	0	0	0	0	--	--
24	21/BIOT/402	Jiphila Roidill Shabong	4	4	5	5	90	A+
25	21/BIOT/408	Ankita Hazarika	3	3	4	0	50	C+
26	21/BIOT/416	Nairity Goswami	0	0	0	0	--	--
27	21/BIOT/422	Rajdeep Paul	1	4	0	0	25	Needs improvement
28	21/BIOT/443	Arbanylla War	2	3	5	0	50	C+

Out of 28 students who registered for the course, only 20 passed this course. Thus, **this course had a passing percentage of 71.42%**. Six students did not submit any assignments (listed in the table above as AI, A II, A III and A IV) and two students scored less than 40 per cent. **Figure 1** below is a graphical display of the percentage scores of all 28 students.

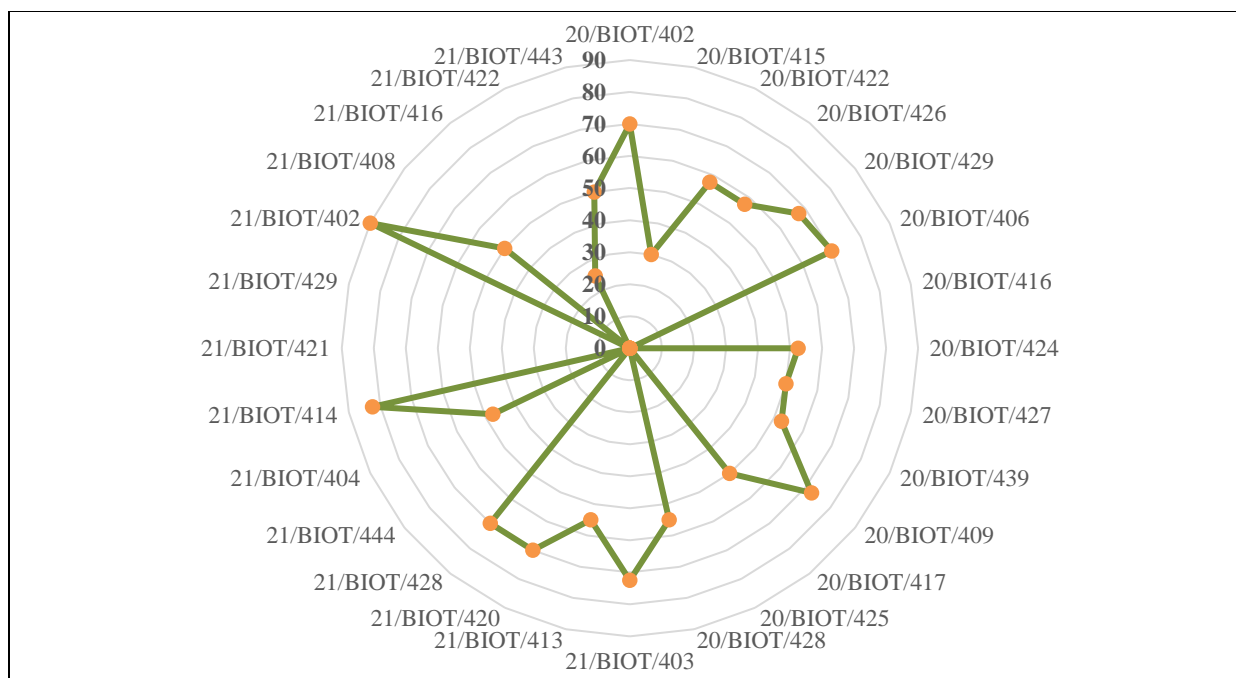


Figure 1: Percentage score of students

Note: This data was plotted using MS Excel.

The final result was computed with the average of the four assessments and appropriate grades were given to students. Refer to section 6.3 for more information.

6.4 Analysis:

Figure 2 (below) shows readers the marks attained by the students of this VAC across four assignments, which were designed by the Research Facilitator.

These assignments were also evaluated by the Research Facilitator. While figure 1 shows the overall performance of students at the end of the course, figure 2 gives readers a more detailed insight of their understanding of the contents and, ultimately, the objectives of this course, across the five modules.

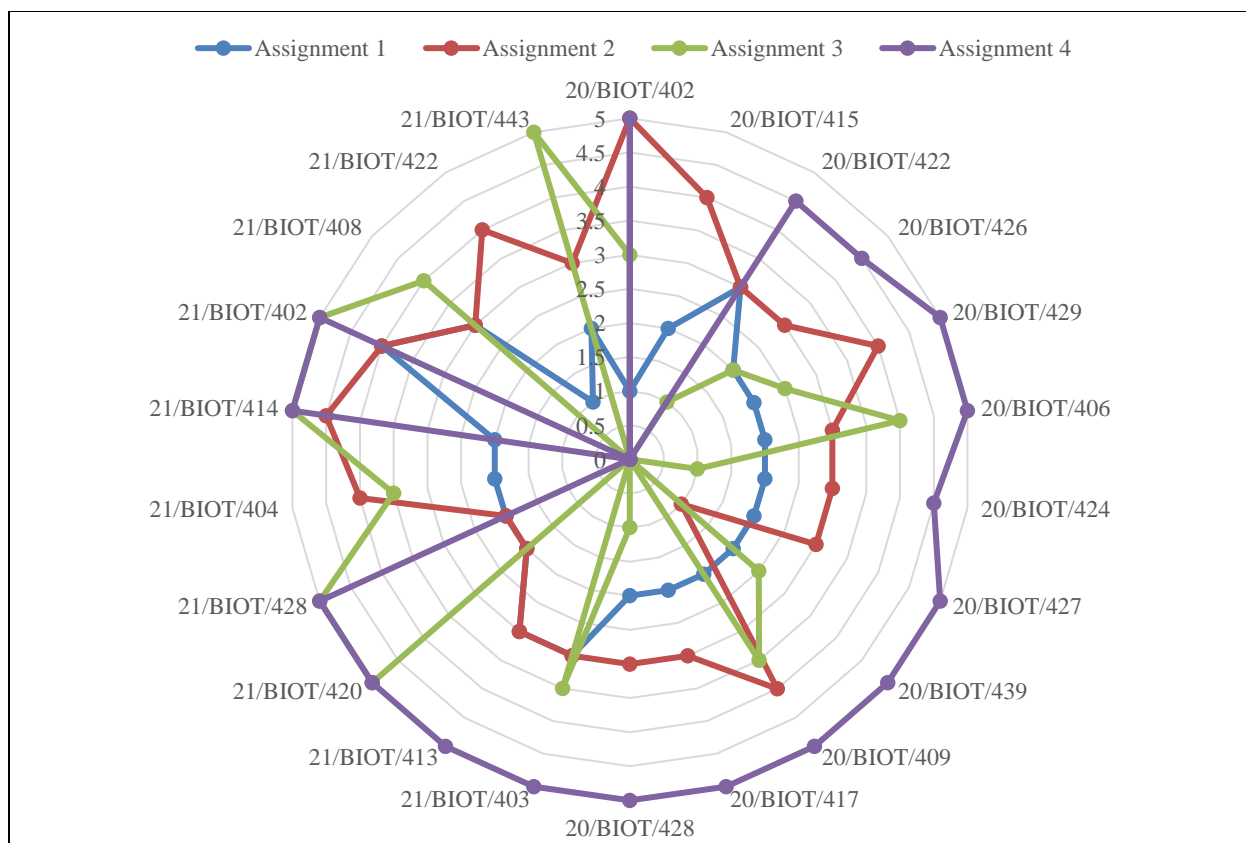


Figure 2: Spread of marks across four assignments

Note: The data is represented in marks (out of five) and plotted using MS Excel.

- As mentioned in **section 6.2**, “Difficulty levels of each assignment *decreased* over the duration of the course”. Figure 2 shows that most students attained their highest scores in Assignment IV. This was an expected outcome since Assignments I and II tested the language and comprehension skills of the students. Since these skills are not the primary focus of most undergraduate and graduate courses, much less a degree in Biotechnology, students may have found it difficult to tap into skills that they had *probably* ignored after completing their higher secondary studies.
- Herein, we arrive at the second observation: students are highly attuned to *descriptive* writing, instead of *analytical* writing (which will be discussed in greater detail in the following paragraphs). Take, for instance, Assignment I. Students were asked to “Rewrite and rephrase (using punctuations)” a paragraph. None of the approximately 22 students who submitted their assignments rewrote the paragraph. Instead, students confined themselves to punctuation and a very limited use of the thesaurus.
- The progression from Assignments I to IV assumed that students would gradually

develop *analytical* skills by way of *analytical writing*. Assignment III, which asked students to, “Write two simple and two complex sentences using data from the figure (Top FDI Sources in India)” saw some students giving descriptions of the figures themselves, while others made comparisons of two countries in two different time frames.

There is no doubt that the students could comprehend the assignment. Rather, it was observed that most of the students could not express their ideas on paper.

The above three points only identify *flaws*. The effort — and interest — of the students for a novel course, such as this, is palpable and, herein, lies the potential to achieve a unique outcome. Given the fact that this course does not carry any credit in their semester scores, a 78% attempt at submitting the various assignments demonstrates interest in developing a skill set that has huge impact in career development.

Moving forward, these perceivable flaws can be rectified by exposing the students to research papers. The Department of Biotechnology, which is one of the leading departments in the College that publishes regularly, could have a few sessions with their students to familiarise them with journal-based publication. The structured process of writing (for journals) will enhance the students’ ability to develop a logic-flow.

FEEDBACK FROM STUDENTS

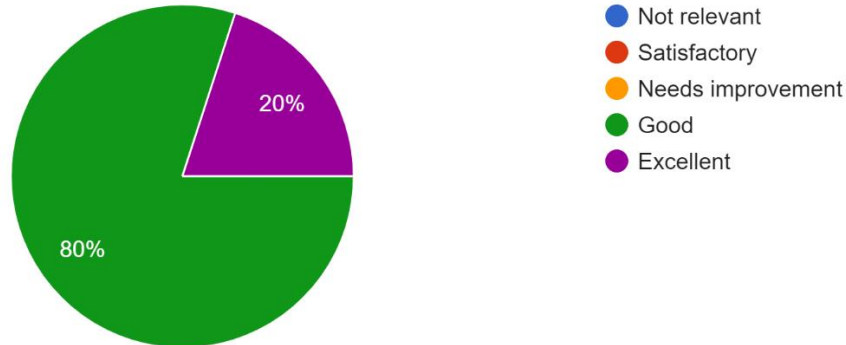
A Google Form was designed to assess feedback from the students. The link (URL) of this form is:

https://docs.google.com/forms/d/e/1FAIpQLSeR3a1MODwGDXOW_RbBsvJ5-HrdTy2pgqbtrSGDm3cAGie9cA/viewform?usp=sf_link

Out of the 28 students who registered for this course, only 10 responded to the Research Facilitator's request for feedback. The analysis is depicted below.

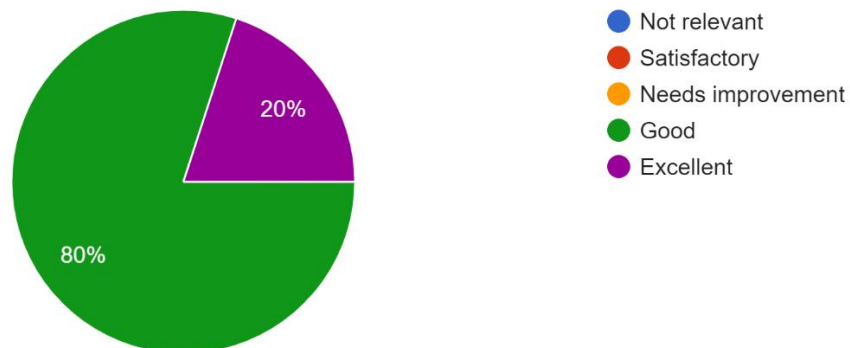
Were the objectives of the course clear to you?

10 responses



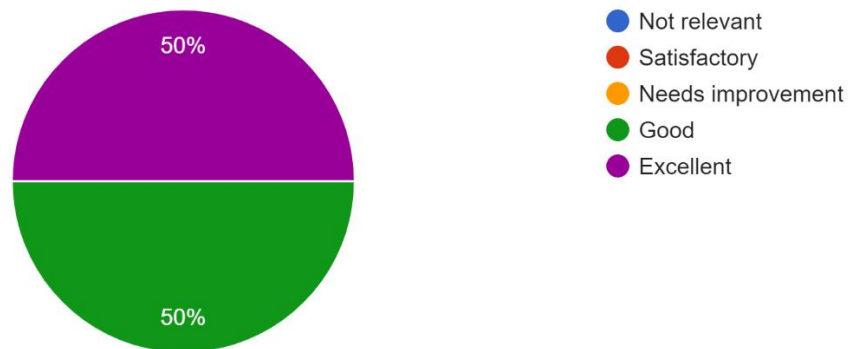
How relevant was the content of the course?

10 responses



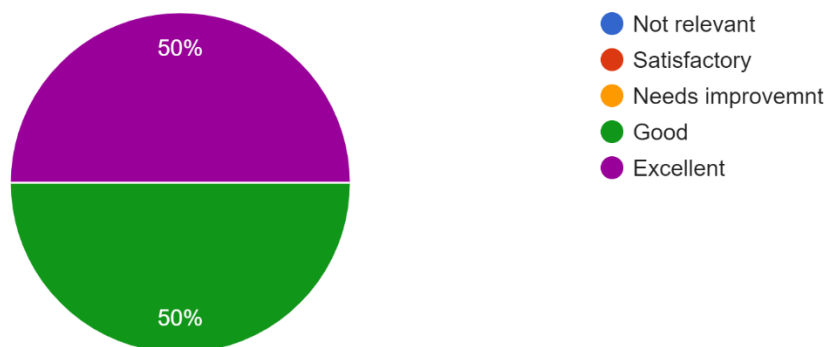
How was the structure (organisation/planning) of the course?

10 responses



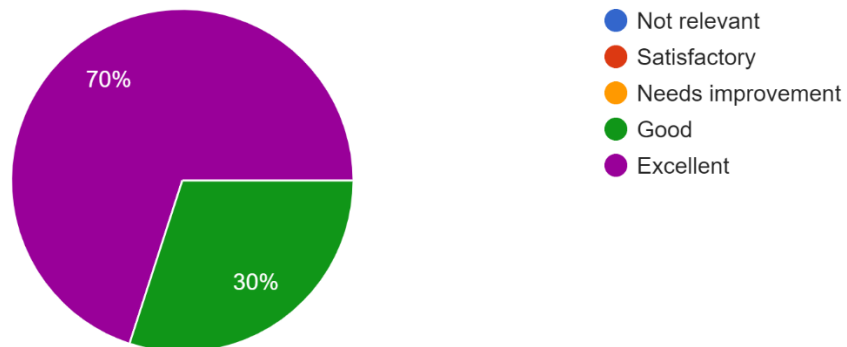
Did the content of the course enhance your understanding of research in the Life Sciences?

10 responses



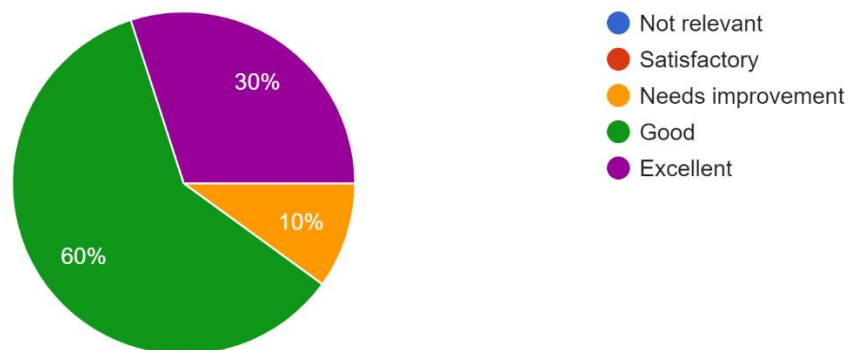
Did the course content familiarise you with the ecosystem (process) of publishing your work in academic journals?

10 responses



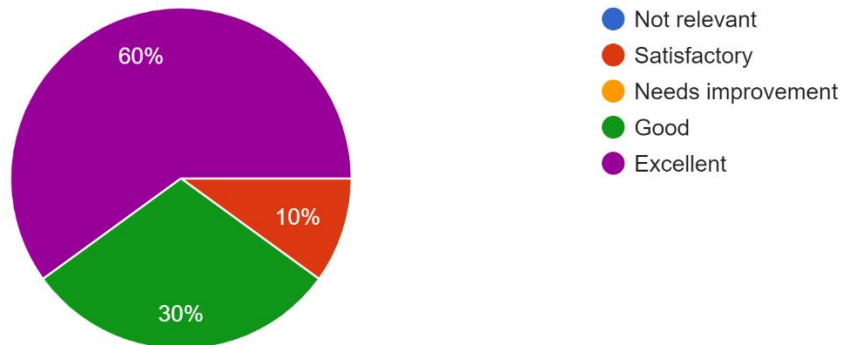
How relevant did you find the assignments?

10 responses



Were the sessions interactive enough?

10 responses



How would you describe this course to your friends?

10 responses



Do you have any **SUGGESTIONS** for the Research Facilitator on how to improve this course?[‡]

- It was a really informative course. Would like to have such similar courses more often. Facilitators were really interactive and helpful. Overall, it was a good experience.
- It was quite interesting & good. No need of improvement.
- Taking up more modules

[‡] The most significant suggestions are included here. The remaining seven students responded that there further improvements required.

FINANCIAL STATEMENT

There were no financial implications on the College.

APPENDICES

The following materials were used as supplementary material to enhance the merit of this course:

9.1 Appendix A (Brochure)



Value Added Course - Academic Writing and Understanding the Ecosystem of Research

Organised by the Incubation Centre,
in collaboration with the Internal Quality Assurance Cell (IQAC), St. Edmund's College, Shillong

Introduction

Research – especially at the undergraduate level – has become the focus of capability-enhancement activities within Indian universities. It is being promoted to enhance the skill sets of Indian graduates and prepare them for opportunities in higher education and industry. Such an initiative not only requires familiarity with contemporary research practices but also an understanding of the “ecosystem of research” (National Education Policy 2020, 45).

Objectives

This five-module Value-Added Course is designed to familiarise the students of the Department of Biotechnology, St. Edmund's, Shillong, with elementary research etiquettes and enlighten them on the accepted process of publishing their research.

Target Participants

The course is only open for the Biotechnology students of St. Edmund's College.

Course Fees

No Course Fee

Presenter(s)

- ☐ Oliver Nelson Gonsalves, PhD, Research Facilitator, St. Edmund's College, Shillong
- ☐ Lucas D'souza, PhD, Postdoctoral Research Associate, Department of Immunobiology, The University of Arizona
- ☐ Suzana Fonseca, Senior Managing Editor, Cactus Communications

How to Apply

REGISTER HERE

For queries, please contact**

Oliver N. Gonsalves, PhD
Research Facilitator
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St. Edmund's College, Shillong
Email id: olivernelson.gonsalves@gmail.com

Course Content

Content	Hours
Module I: Basics of Academic/Research Writing	2
Module II: What is Plagiarism?	2
Module III: Grasping the craft of scientific communication	2
Module IV: Avoiding the Pitfalls of Research Misconduct – Talk by external presenter	2
Module V: Publishing the Right Way – Talk by external presenter	2

Assessments*

Upon completion of each module (Contact hours of 2) participants will have to respond to an online questionnaire series. Each module will also have short assignments based on the practical knowledge disseminated during the class. The results shall be graded accordingly with analysis of the feedback.

Mode

This course will be conducted online (Zoom)

Important Dates

Registration Opens	8 th Aug 2022
Registration Closes	14 th Aug 2022
Commencement of the Course	16 th Aug 2022
Timings	6:00 p.m. – 8:00 p.m.
Module I	16 th Aug 2022
Module II	17 th Aug 2022
Module III	18 th Aug 2022
Module IV	19 th Aug 2022
Module V	20 th Aug 2022

***Participants who have completed ALL modules of the 13-hour course will be provided with certificates**

****Kindly note all correspondence will be through e-mail only**

9.2 Appendix B (Template of the Certificate)



Research Facilitator
St. Edmund's College
Shillong - 793003