



REPORT ON ADD ON COURSE

Title	Vermicomposting Technology for Waste Management
Date of Start	7 th July 2023
Date of Complete	16 th July 2024
No of Days	78 days
Duration:	Contact Hours (Theory): 10 hours Contact Hours (Practical): 35 hours
Mode:	Offline
Syllabus:	

SYLLABUS ON VERMICOMPOST TECHNOLOGY FOR WASTE MANAGEMENT

Learning Outcomes: Students at the successful completion of the course will be able to: (1) Acquire a critical knowledge on role of earth worms in making organic matter from biodegradable wastes (2) Understand the biology of some important species of earth worms used in vermiculture (3) Acquire theoretical knowledge on the processes and procedure for production of vermicompost and its utility (4) Acquire skills on hands-on production of vermicompost and vermiculture

Syllabus: (Hours: Teaching: 10 hrs, Lab: 35hrs)

Unit 1: Introduction to Vermiculture: Vermiculture - definition, meaning, history, economic importance, value in maintenance of soil structure, biotransformation of organic matter, role as four R's of recycling (reduce, reuse, recycle and restore).

Unit 2: About Earthworm: Basic body structure of earthworm; Distribution, Food habit and habitat of earthworms; Ecological requirements: moisture, temperature, pH, organic matter etc.; Ecological categories: Epigeic, Endogeic and Anecic earthworms; Ecosystem services i.e. role played by earthworms in soil ecosystem; Useful species of earthworms, local and exotic species of earthworms;



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Unit 3: Vermicomposting: Bedding for earthworms; Methods of vermicomposting (a) Low cost floor beds (b) Tank system; Small scale compost for home gardens; Management during vermicomposting; Earthworm farming and extraction (harvest); Vermicomposting harvest and processing; Vermiwash collection and use.

Unit 4: Practical: Hands-on preparation of vermicompost.

Reference Books:

- Bhatt, J.V. and Khambata, S.R. 1959. Role of Earthworms in Agriculture. Indian Council of Agricultural Research, New Delhi.
- Bridgens, S. 1981. The importance of the earthworms. *Span* 22(8): 20.
- Edwards, C.A. and Lofty, J.R. 1977. *Biology of Earthworms*. Chapman and Hall Ltd., London.
- Hennuy, G. and Gaspar, C. 1986. Treatment of wastes by worms. *Bulletin des Recherches Agronomiques de Gembloux* 21(3): 359-67.
- Ismail, S.A. 1995. Earthworms in soil fertility management. In: *Organic Farming*, Thampan, P.K., (ed.), pp: 77- 100. Peekay Tree Crops Development Foundation, Cochin, India.
- Julka, J.M. 1986. Earthworms resources of India. In: *Proceedings of the National Seminar on Organic waste utilization and vermicomposting, Part-B: Vermis and Vermicomposting*, Dash, R.C., Senapathi, B.K. and Mishra, P.C. (eds.), Burla, India, pp: 1-7.
- Kevin, A. and Lee, K.E. 1989. *Earthworm for Gardeners and Fisherman*. CSIRO, Australia, Division of Soils.
- Lavelle, P. 1988. Earthworm activity and the soil system. *Biology and fertility of Soils* 6: 237-251.
- Lavelle, P., Bignell, D., Lepage, M., Wolters, V., Roger, P., Ineson, P., Heal, O.W. and Dhillion, S. 1997. Soil function in a changing world: the role of invertebrates ecosystem engineers. *European Journal of soil Biology* 33: 159-193.
- Lee, K.E. 1985. *Earthworms: Their ecology and Relationship with Soils and Land Use*. Academic Press, Sydney.
- Madan, M., Sharma, S., Bisaria, R. and Bhamidimarri, R. 1988. Recycling of organic wastes through vermicomposting and mushroom cultivation. *Alternative waste treatment systems*: 132-141.
- Sharma, S., Pradhan, K., Satya, S. and Vasudevan, P. 2005. Potentiality of Earthworms for Waste Management and in Other Uses – A Review. *The Journal of American Science* 1(1): 4-16.
- Wallwork, J.A. 1983. *Earthworm Biology*. Edward Arnold (Publishers) Ltd. Londo

Course module: **Module I-** Introduction to Vermiculture
 Module II- About Earthworm
 Module III- Vermicomposting



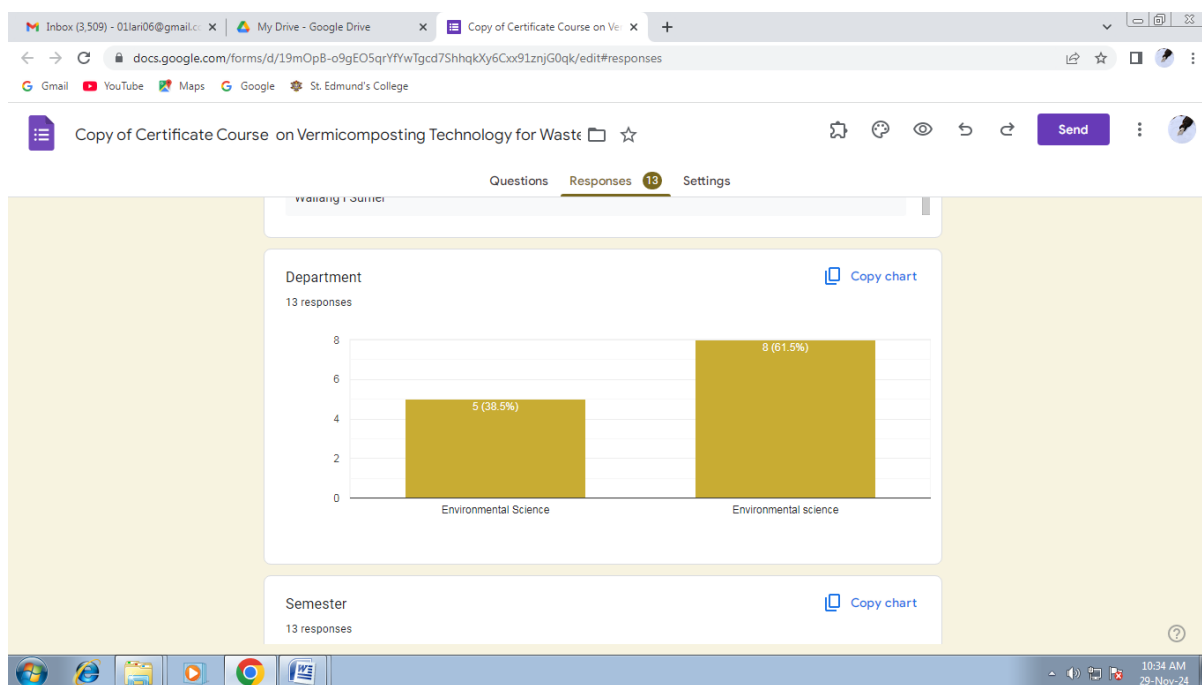
Module IV: Practical: Hands-on preparation of vermicompost.

Collaborators (if any) None

Objective Able to explain the need and concept of eco-friendly technology
Production of useful products like vermifertilizers or nutrient-rich compost
Helps in reducing the amount of organic wastes

Outcome: Students at the successful completion of the course will be able to: (1) Acquire a critical knowledge on role of earth worms in making organic matter from biodegradable wastes (2) Understand the biology of some important species of earth worms used in vermiculture (3) Acquire theoretical knowledge on the processes and procedure for production of vermicompost and its utility (4) Acquire skills on hands-on production of vermicompost and vermiculture

Feedback

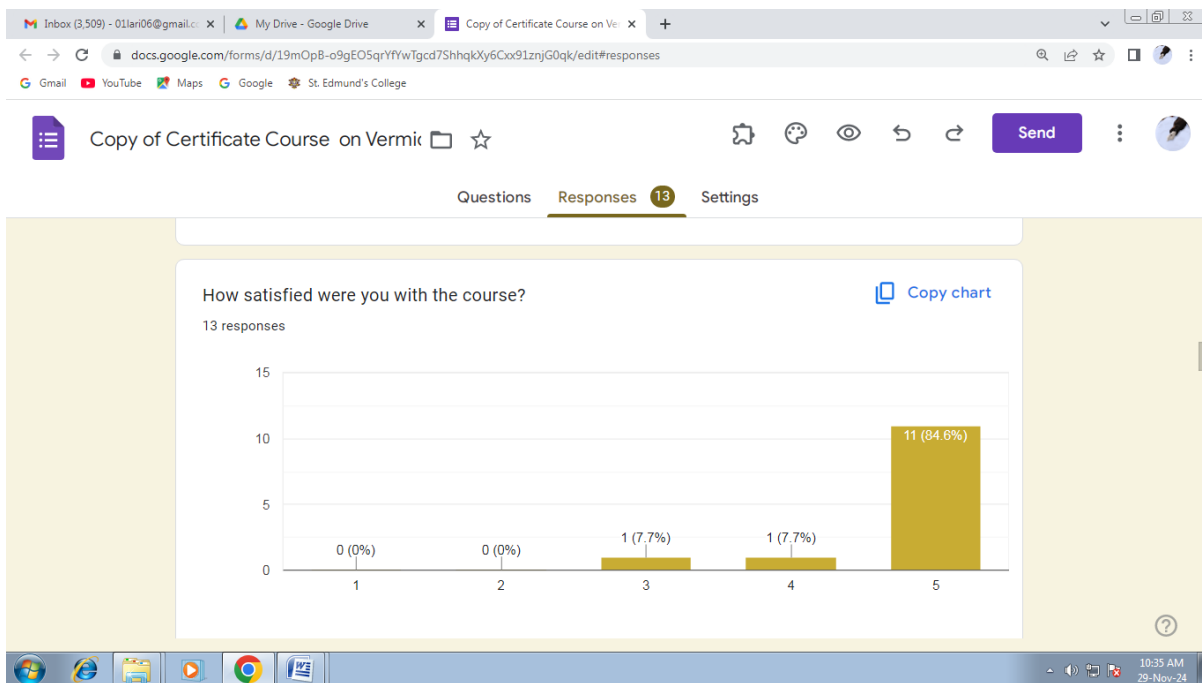
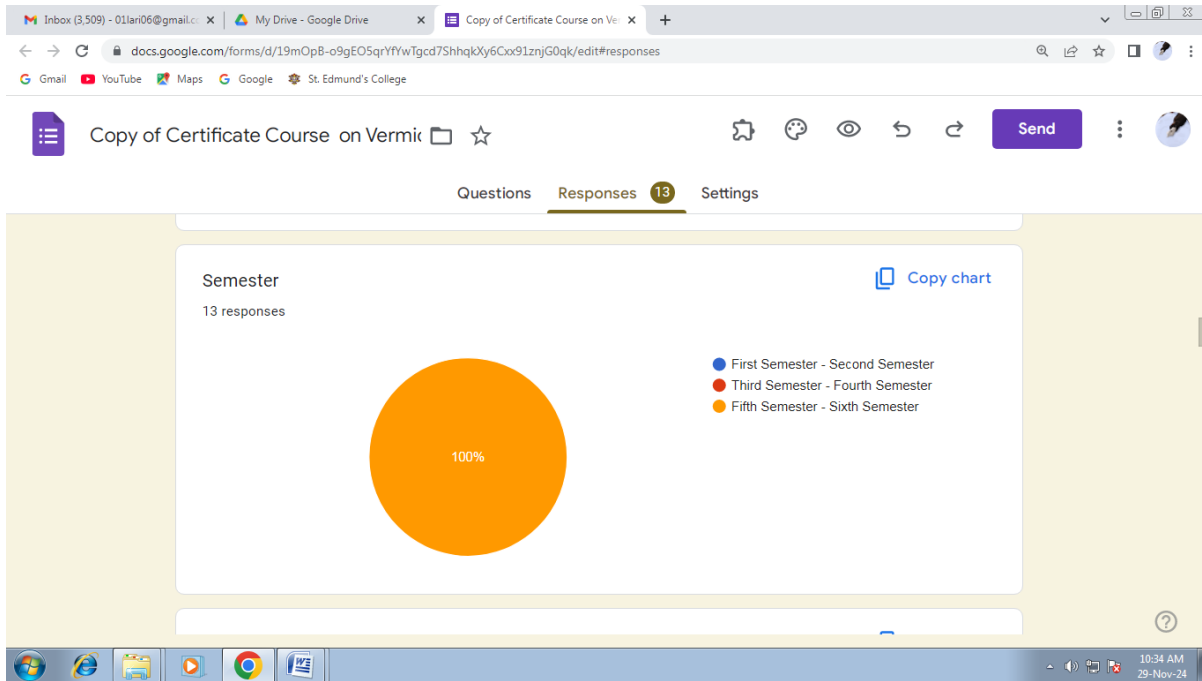




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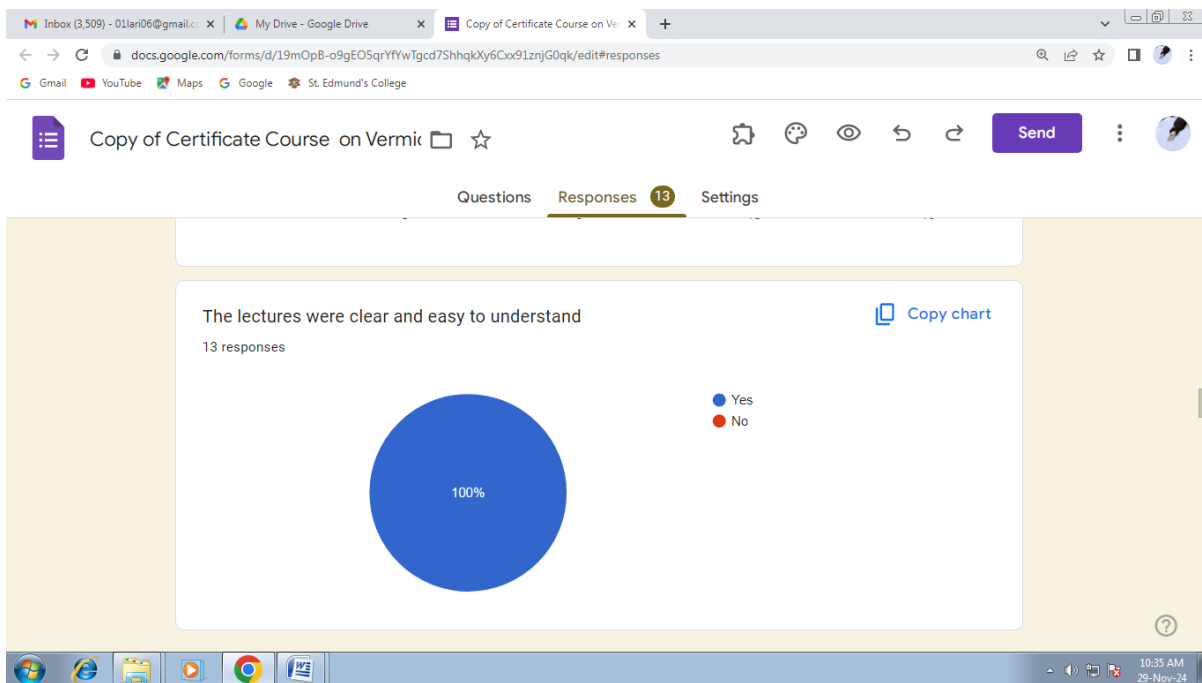
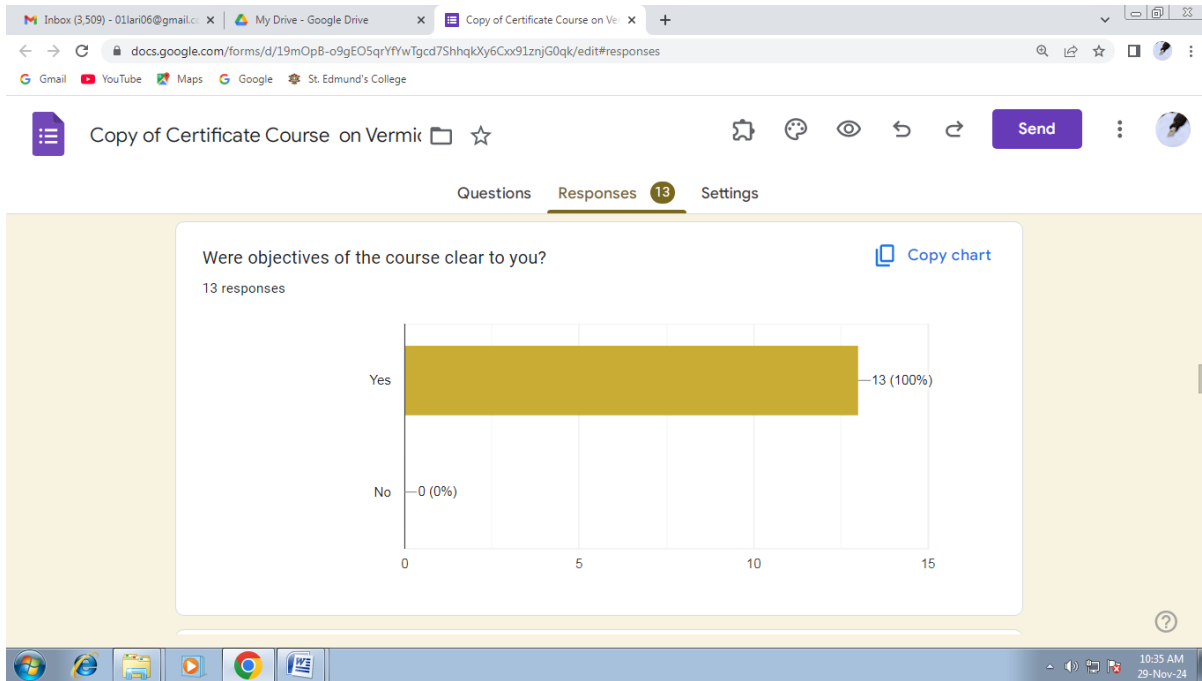




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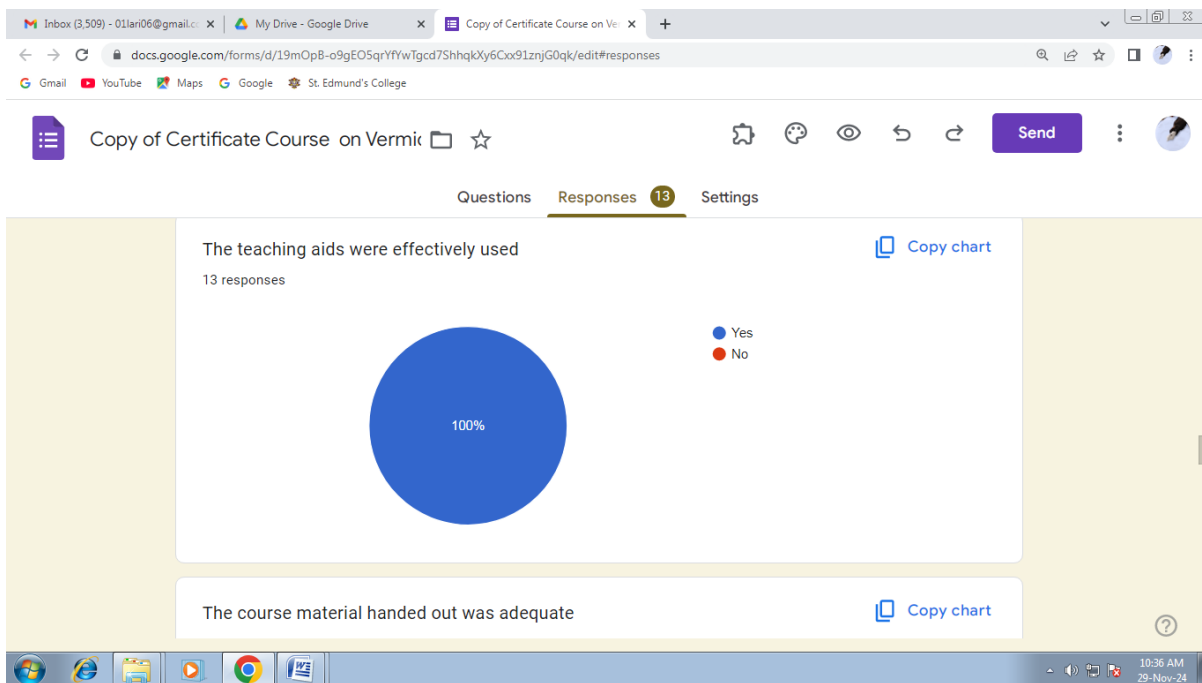
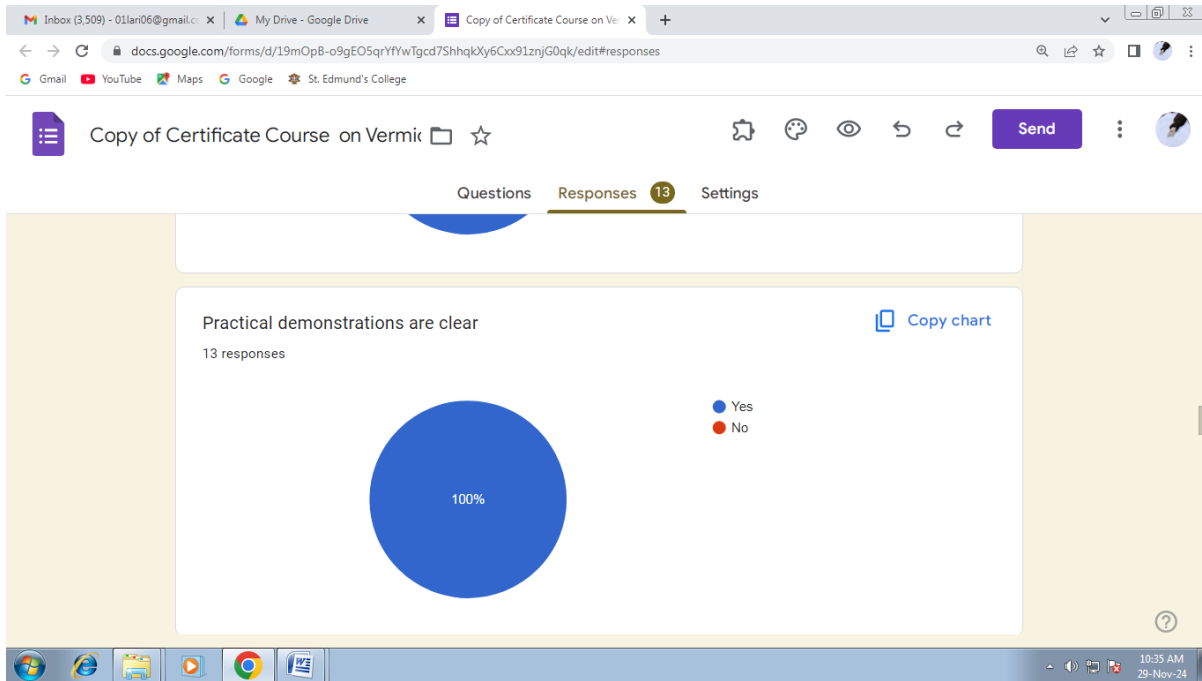




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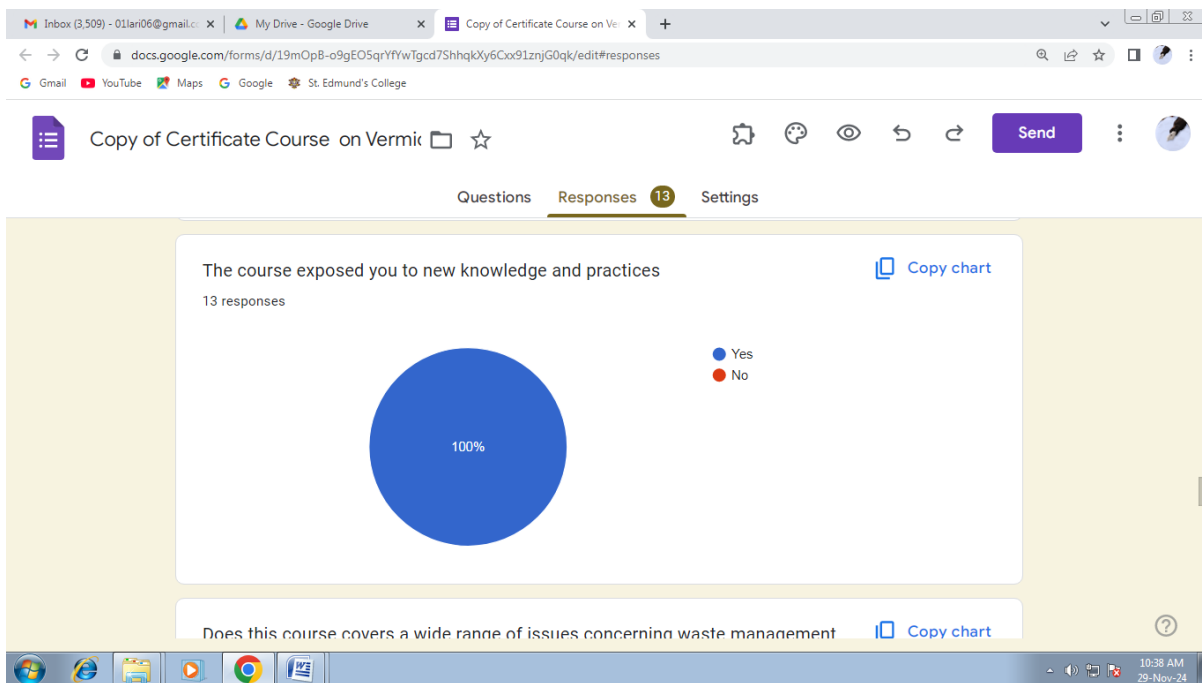
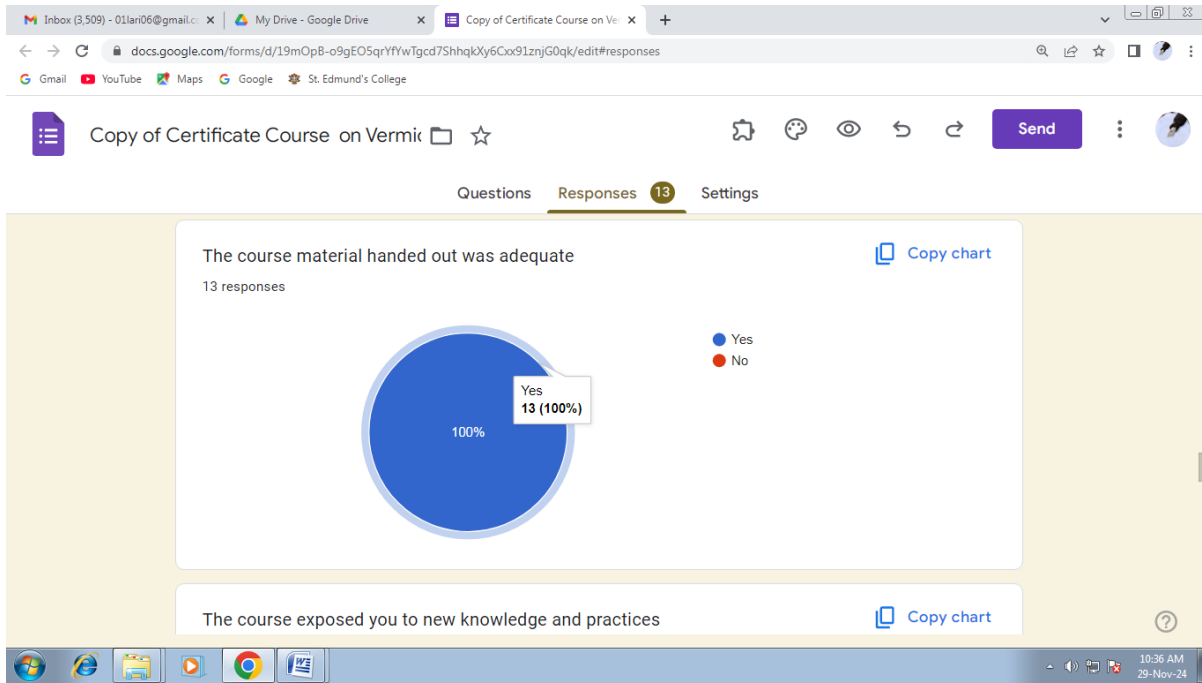




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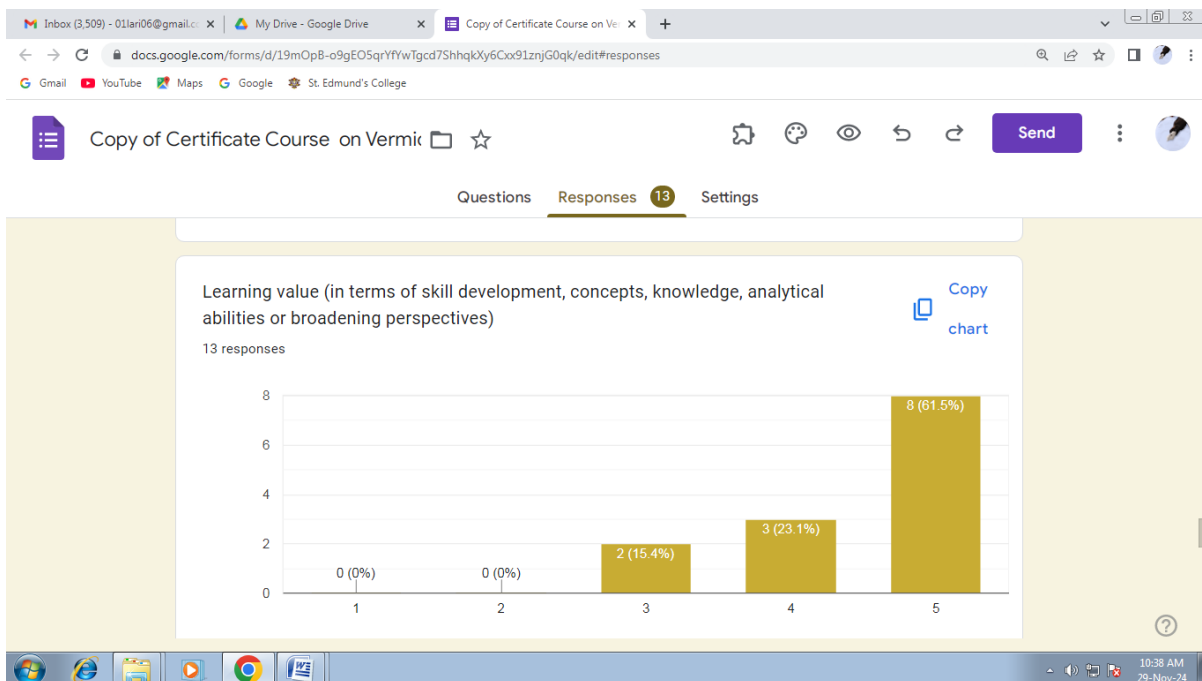
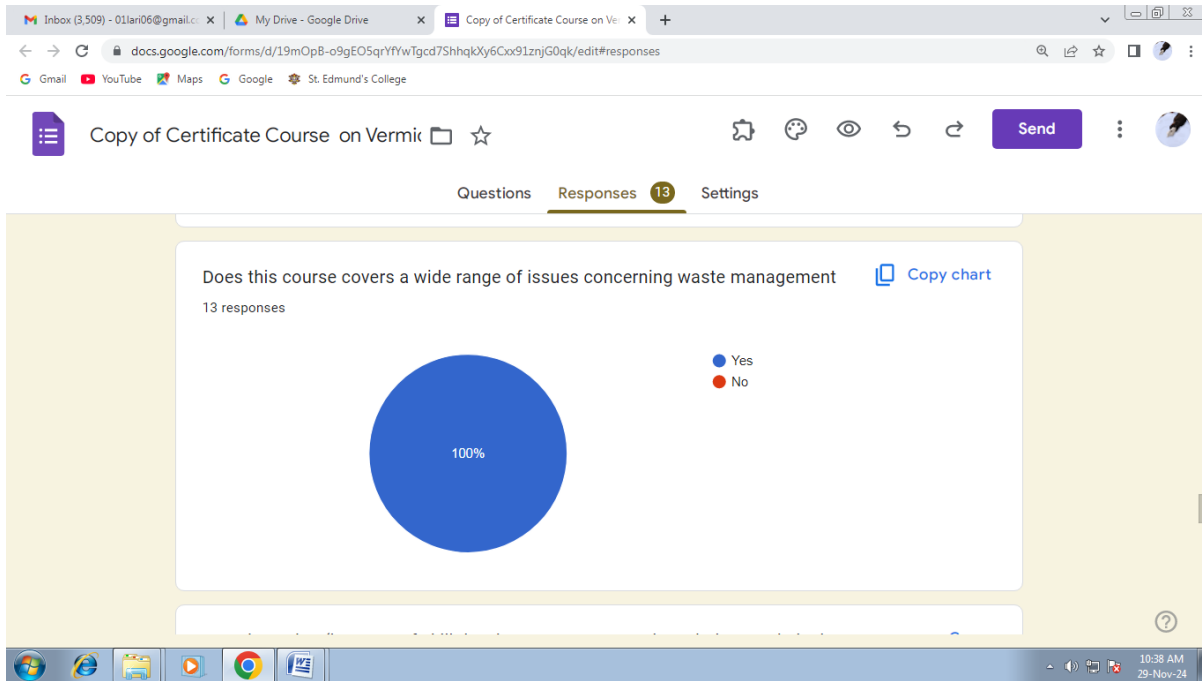




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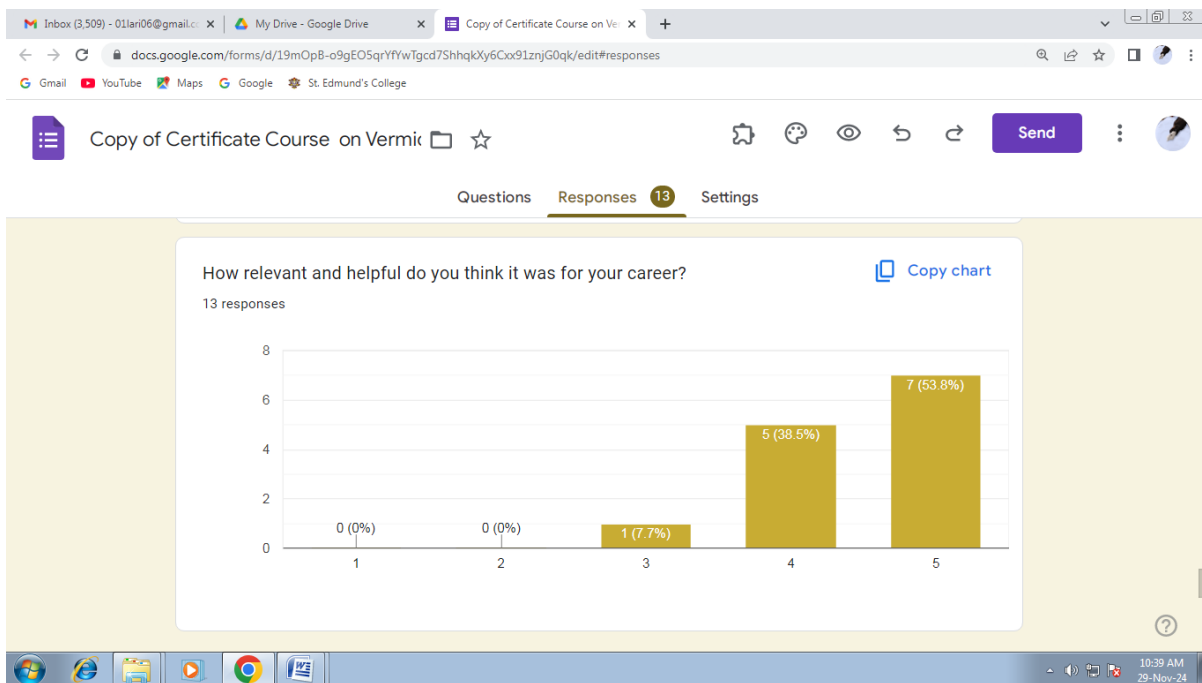
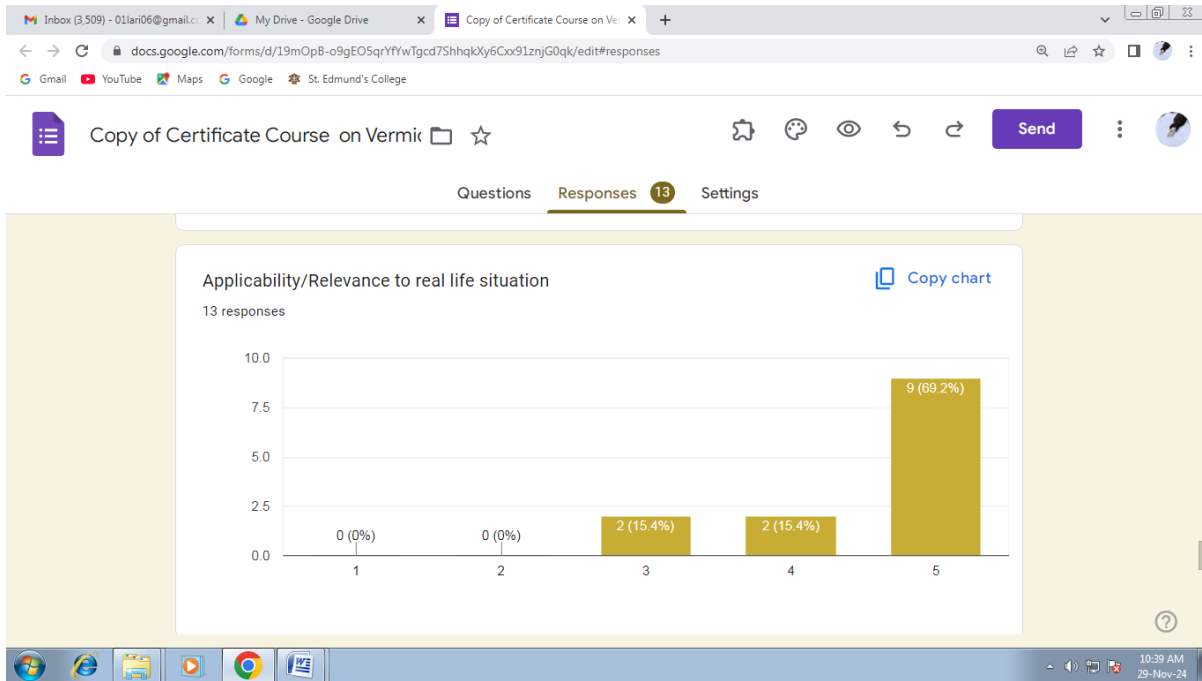




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Any overall feedback or suggestion for the course

13 responses

The best teachers ever



It was really good and something really important related to my field of study.

Is very helpful

Time management

Great learning experience. Miss LJ explained every step very thoroughly.

Everything taught by Miss was clear and easy to grasp and understand.

it was progressive and innovative for soil conservation

Doing it a bit earlier

No

No, It's every helpful

Informative and broadening of knowledge.

It helped to gain a new field of knowledge and information that can be applied in our day-to-day life and showing importance of earthworms n the power to generate income

From this course we learn that vermicompost can prepare both in small and large scale

Feedback analysis

- 84% of the respondent were satisfied with the course
- 100% were clear with the objectives of the course
- 100% were clear and understand the lectures provided
- 100% were clear with the practical demonstration
- 100% agrees that the teaching aids were effectively used
- 100% agrees that the course materials handed out to them were adequate
- 100% agrees that the course exposed them to a new knowledge and practices
- 100% agrees that the course covers a wide range of issues concerning waste management
- 61.5% agrees with the learning values (in terms of skill development, concept, knowledge, analytical abilities or broadening perspectives)
- 69.2% finds the course applicable/relevant to their real life situation
- 53.8% finds the course as relevant and helpful for their career



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Geo tagged photos (2 nos)



Any other information as per your choice

Students Attendance:

Certificate Course
On
Vermicomposting Technology for Waste management
July 2023

Name	20/7/23	21/7/23	22/7/23	24/7/23	26/7/23	27/7/23	28/7/23	29/7/23
I-kmen-Rahmi	Present	Present	Present	Present	Present	Present	Present	Present
Tyngkan	Present	Present	Present	Present	Present	Present	Present	Present
Taba Enu	Present	Present	Present	Present	Present	Present	Present	Present
Ojing Lego	Present	Present	Present	Present	Present	Present	Present	Present
Goldenway. P. Hajong	Present	Present	Present	Present	Present	Present	Present	Present
Celineda. M. Kurkalang	Present	Present	Present	Present	Present	Present	Present	Present
Evameahun. S. Nohriang	Present	Present	Present	Present	Present	Present	Present	Present
Wailang. I. Sumer	Present	Present	Present	Present	Present	Present	Present	Present
Rupabakor. M. Dusa	Present	Present	Present	Present	Present	Present	Present	Present
Jeet. S. Deka	Present	Present	Present	Present	Present	Present	Present	Present
Neha Konwar	Present	Present	Present	Present	Present	Present	Present	Present
Sharon. G. Marbaniang	Present	Present	Present	Present	Present	Present	Present	Present
Ginbiaklian	Present	Present	Present	Present	Present	Present	Present	Present
Tombing	Present	Present	Present	Present	Present	Present	Present	Present
Manix	Present	Present	Present	Present	Present	Present	Present	Present
Namerakpam	Present	Present	Present	Present	Present	Present	Present	Present
Kh.	Present	Present	Present	Present	Present	Present	Present	Present
Veikhalou. J. Kay	Present	Present	Present	Present	Present	Present	Present	Present

Certificate Course
On
Vermicomposting Technology for Waste management
August 2023

Name	4/8/23	7/8/23	12/8/23	14/8/23	17/8/23	21/8/23	23/8/23	26/8/23
I-kmen-Rahmi	Present	Present	Present	Present	Present	Present	Present	Present
Tyngkan	Present	Present	Present	Present	Present	Present	Present	Present
Taba Enu	Present	Present	Present	Present	Present	Present	Present	Present
Ojing Lego	Present	Present	Present	Present	Present	Present	Present	Present
Goldenway. P. Hajong	Present	Present	Present	Present	Present	Present	Present	Present
Celineda. M. Kurkalang	Present	Present	Present	Present	Present	Present	Present	Present
Evameahun. S. Nohriang	Present	Present	Present	Present	Present	Present	Present	Present
Wailang. I. Sumer	Present	Present	Present	Present	Present	Present	Present	Present
Rupabakor. M. Dusa	Present	Present	Present	Present	Present	Present	Present	Present
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Neha Konwar	Present	Present	Present	Present	Present	Present	Present	Present
Sharon. G. Marbaniang	Present	Present	Present	Present	Present	Present	Present	Present
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Tombing	Present	Present	Present	Present	Present	Present	Present	Present
Manix	Present	Present	Present	Present	Present	Present	Present	Present
Namerakpam	Present	Present	Present	Present	Present	Present	Present	Present
Kh.	Present	Present	Present	Present	Present	Present	Present	Present
Veikhalou. J. Kay	Present	Present	Present	Present	Present	Present	Present	Present



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Certificate of Completion

