



"Dissemination of Education through Knowledge, Science and Culture"
-Shikshanmaharshi Dr. BapujiSalunkhe

Shri Swami Vivekanand ShikshanSanstha's Kolhapur

**PADMABHUSHAN DR. VASANTRAODADA PATIL
MAHAVIDYALAYA TASGAON DIST- SANGLI**

416 312 (Maharashtra) Phone No: (02346)250665

(Affiliated to Shivaji University, Kolhapur)

DEPARTMENT OF PHYSICS

CERTIFICATE COURSE

**Operation and Management of
Cold Storage**

2019-2020

Department of Physics,
Padmabhushan Dr. Vasantodada
Patil Mahavidyalaya, Tasgaon
Dist-Sangli
02/08/2019

To,
The Principal,
Padmabhushan Dr. Vasantodada Patil Mahavidyalaya,
Tasgaon, Dist-Sangli

Subject -: Permission for conducting Certificate course - Operation and
Management of Cold Storage

Respected Sir,

The department of physics conducting Certificate course of Operation
and Management of Cold Storage from 16/09/2019.

I kindly request you to give permission for run the above said certificate
course.

Thanking you.



Yours Faithfully,



Dr. J. S. Ghodake
Head,

Department of Physics,
Padmabhushan Dr. Vasantodada Patil
Mahavidyalaya, Tasgaon, (Dist. Sangli)

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Shri Swami Vivekanand Shikshan Sanstha Kolhapur's
Padmabhushan Dr. Vasantodada Patil Mahavidyalaya, Tasgaon
Department of Physics

BOARD OF STUDY
2019-2020

Board of studies member in Certificate course in Operation and Management of Cold Storage are

1)	Dr. J. S. Ghodake	Physics, PDVP College, Tasgaon
2)	Dr. S. S. Patil	Chemistry, PDVP College, Tasgaon
3)	Mr. B. S. Harale	Physics, PDVP College, Tasgaon
4)	Mr. S. S. Shinde	Physics, PDVP College, Tasgaon
5)	Mr. G. S. Pawar	Physics, PDVP College, Tasgaon
6)	Mr. S. S. Patil	Physics, PDVP College, Tasgaon


Dr. J. S. Ghodake
Head,

Department of Physics,
Padmabhushan Dr. Vasantodada Patil
Mahavidyalaya, Tasgaon, (Dist. Sangli)


Dr. Milind S. Hujare
Principal

Padmabhushan Dr. Vasantodada Patil
Mahavidyalaya, Tasgaon, (Sangli)

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Padmabhushan Dr. Vasantodada Patil Mahavidyalaya, Tasgaon
Department of Physics

Date-05/08/2019

MEETING NOTICE


All members of the BOS in Certificate course in Operation and Management of Cold Storage are hereby informed that a meeting is convened on 10/08/2019 at 2.30 p. m. in the departmental cabin. All the respected members are requested to attend the meeting to discuss the following agenda.

Agenda:

1. Preparation of syllabus of certificate course
2. Time table and Workload
3. Syllabus distribution
4. Any other issue raised with prior permission of Chairperson.

Following members are present on this meeting.

Sr. No.	Name of the faculty	Signature
1)	Dr. J. S. Ghodake	
2)	Dr. S. S. Patil	
3)	Mr. B.S. Harale	
4)	Mr. S. S. Shinde	
5)	Mr. G. S. Pawar	
6)	Mr. S. S. Patil	


Dr. J. S. Ghodake

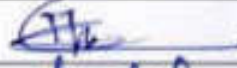
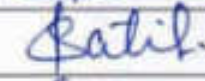
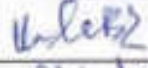
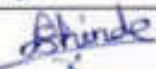


Head,
Department of Physics,
Padmabhushan Dr. Vasantodada Patil
Mahavidyalaya, Tasgaon, (Dist. Sangli)

Minutes of Meeting

The minutes of the meeting are given below

1. During the meeting syllabus of certificate course in Operation and Management of Cold Storage are prepared. It contains two papers in which first theory paper of Management of Cold Storage and second paper of practicals of Cold Storage systems are discussed. The responsibility of preparation of syllabus was given to Mr. S. S. Patil
2. The issue regarding time table and workload distribution discussed. It has been decided to start course from September 2019. The faculty member is appointed for teaching the syllabus and practicals.
3. The responsibility of completion of syllabus is given to teacher Mr. Y. S. Pandit.

Following members are present on this meeting.

Sr. No.	Name of the faculty	Signature
1)	Dr. J. S. Ghodake	
2)	Dr. S. S. Patil	
3)	Mr. B.S. Harale	
4)	Mr. S. S. Shinde	
5)	Mr. G. S. Pawar	
6)	Mr. S. S. Patil	


Dr. J. S. Ghodake
Head,
Department of Physics,
Padmabhushan Dr. Vasantraodada Patil
Mahavidyalaya, Talegaon, (Dist. Sangli)

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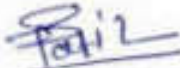
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Padmabhushan Dr. Vasantodada Patil Mahavidyalaya, Tasgaon (Dist. Sangli)
DEPARTMENT OF PHYSICS

Notice

11/09/2019

All the students of B. Sc. III are hereby informed that, lectures for certificate course in "Operation and Management of Cold Storage" will be started from 16/09/2019 as per timetable displayed on notice board.

All students must be remain present in time.


Mr. S. S. Patil
Co-coordinator


Dr. J. S. Ghodake
Head,
Department of Physics,
Padmabhushan Dr. Vasantodada Patil
Mahavidyalaya, Tasgaon, (Dist. Sangli)


Dr. Milind S. Hujare
Principal
Padmabhushan Dr. Vasantodada Patil
Mahavidyalaya, Tasgaon, (Sangli)

Aims and Objectives

Students acquire knowledge about functioning and use of electrical – electronic parts of cooling system and accessories. Also create awareness about refrigeration system. The students who completed this course are competent in cold storage system and acquire knowledge about refrigeration system.


After completion of this course students are able to operate cold storage, manage cold storage, repair and maintain cold storage systems and can get job opportunities in a commercial cold storage.

1. Testing of electrical and electronic parameters, cables.
Trouble shoot the faults in the given power supply circuits.
2. Identify electronics-electrical parts/components/modules of the cold storage.
3. Practice on handling of commodities in cold storage,
4. Handling and combination of commodities in cold storage.
5. Faults finding and rectification of refrigeration system.
6. Practice on operating systems of cold storage

Undergraduate students upon graduation with a Bachelor degree in Sciences:

LEARNING OUTCOMES (knowledge, skills and competence):

1. Students acquire knowledge about functioning and use of electrical - electronic parts of cooling system and accessories Also create awareness about refrigeration system. The students who completed this course are competent in cold storage, manage cold storage, repair and maintain cold storage system.
2. Operate of cold storage
3. Handle of commodities in cold storage.
4. Repair and maintenance of cold storage system
5. Duration of course: One month.
6. Eligibility to course: 12th, B. A., B. Com, B.Sc.
7. Admission: Entire 12th, B. A., B. Com, B.Sc.Students.


Mr. S. S. Patil
Co- coordinator


Dr. J. S. Ghodake
Head,
Department of Physics,
Padmabhushan Dr. Vasantraodada Patil
Mahavidyalaya, Teegaon, (Dist. Sangli)


Dr. Milind S. Hujare
Principal
Padmabhushan Dr. Vasantraodada Patil
Mahavidyalaya, Teegaon, (Sangli)

Syllabus

Certificate course in

Operation and Management of Cold Storage

Theory [Total periods: 15]

Paper I: Management of Cold Storage

Unit I (05 hours)

1. Operation of cold storage

1.1 Principle of refrigeration and vapour compression system 1.2 Components of refrigeration and vapour compression system. 1.3 Classification of refrigeration's and their properties 1.4 Effects of refrigeration's on environment. 1.5 Concept of refrigeration and air conditioning tutor.

Unit II (05 hours)

2. Commodities and inventory management in coldstorage -

2.1 Concept of storage of dried grapes 2.2 Practice of handling of dried grapes 2.3 Storage requirements for different commodities 2.4 Mechanism and air conditioning system of cold storage. 2.5 Concept of controlled and modified atmospheric storage.

Unit III (05 hours)

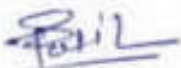
3. Repair and maintenance of cold storage system-

3.1 Basic maintenance of cold storage. 3.2 Identify faults in refrigeration system 3.3 Rectify faults in refrigeration system

Practical [Total periods: 15]

Paper II: Operation of Cold Storage

1. Practical study on handling and storage of Commodities in cold storage.
2. Faults finding in refrigeration system
3. Rectification of faults in refrigeration system
4. Training on operation systems of cold storage.
5. Temperature maintains in cold storage


Mr. S. S. Patil
Co-coordinator


Dr. J. S. Ghodake
Head,
Department of Physics,
Padmabhushan Dr. Vasantkrishna Patil
Mahavidyalaya, Targaon, (Dist. Sangli)


Dr. Milind S. Hujare
Padmabhushan Dr. Vasantkrishna Patil
Mahavidyalaya, Targaon, (Sangli)

Evaluation System:

- **Theory paper:** **50 M**
Nature of the Theory examination
Q. 1) Multiple choice questions.
Choose the most correct alternative out of four alternatives a, b, c and d

- **Practical Course** **50 M**
Nature of Practical examination
a. Oral/Viva

Certification: A certificate will be issued on successful completion of the course.


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Padmabhushan Dr. Vasantrodada Patil Mahavidyalaya Tasgaon Dist-Sangli

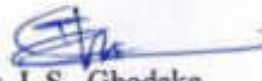
Department of Physics

Certificate Course in Operation and Management of Cold Storage

List of Students 2019-2020

Sr. No.	Roll No.	Name of the student
1	5625	Miss JamadadeRutuja Vijay
2	5617	Miss Chavan Tejashree Shrikant
3	5658	Miss Zarekar Snehal Mahadev
4	5619	Mr. Desai Pratmesh Sanjay
5	5621	Mr. DhisaleVinod Balaso
6	5758	Miss Patil Prajakta Sanjay
7	5616	Mr. Budhavale Sagar Ashok
8	5733	Mr. Gole Sourabh Dinkar
9	5626	Mr. Koli Tushar Chadrakant
10	5736	Mr. Jadhav Atul Narayan
11	5629	Mr. Lokhande Shubham V
12	5618	Mr. Dhabugade Rushikesh
13	5635	Miss Mulla Misba jamirahmad
14	5631	Miss Mane Mohini Sandip
15	5632	Miss Mane Nilam Sampat
16	5611	Miss Gaiwad Prajakta Nagesh
17	5639	Miss Patil Asavari Shivaji
18	5642	Miss Patil Sonali Balaso
19	5623	Miss Jadhav Jyoti Sampat
20	5755	Miss Patil Nikita Nagesh


Mr. S. S. Patil
Co- coordinator


Dr. J. S. Ghodake
Head,
Department of Physics,
Padmabhushan Dr. Vasantrodada Patil
Mahavidyalaya, Tasgaon, Dist-Sangli


Dr. Milind S. Hujare
Principal

Padmabhushan Dr. Vasantrodada Patil
Mahavidyalaya, Tasgaon, Dist-Sangli

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Padmabhushan Dr. Vasantodada Patil Mahavidyalaya Tasgaon Dist-Sangli

Department of Physics

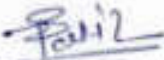
Certificate Course in

OPERATION AND MANAGEMENT OF COLD STORAGE

Time Table

2019-2020

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8.00am- 11.00am	--	--	--	--	--	Practical
10.00am- 11.00am	Theory	Theory	Theory	--	--	--


Mr. S. S. Patil
Co- coordinator


Dr. J. S. Ghodake
Head,
Department of Physics,
Padmabhushan Dr. Vasantodada Patil
Mahavidyalaya, Tasgaon, (Dist. Sangli)


Dr. Milind S. Hujare
Principal
Padmabhushan Dr. Vasantodada Patil
Mahavidyalaya, Tasgaon, (Sangli)

Sr. No.	Name of the student	21/09/2019	28/09/2019	05/10/2019	12/10/2019	19/10/2019
1	Jamdade Rutuja Vijay	Bamdade Rutuja	Bamdade Rutuja	Bamdade Rutuja	Bamdade Rutuja	Bamdade Rutuja
2	Chavan Tejashree Shrekant	Chavan Tejashree	Chavan Tejashree	Chavan Tejashree	Chavan Tejashree	Chavan Tejashree
3	Zarekar Snehal Mahadev	Zarekar Snehal	Zarekar Snehal	Zarekar Snehal	Zarekar Snehal	Zarekar Snehal
4	Desai Pratmesh Sanjay	Desai Pratmesh	Desai Pratmesh	Desai Pratmesh	Desai Pratmesh	Desai Pratmesh
5	Dhisale Vinod Balaso	Dhisale Vinod	Dhisale Vinod	Dhisale Vinod	Dhisale Vinod	Dhisale Vinod
6	Patil Prajakta Sanjay	P.S.Patil Prajakta	P.S.Patil Prajakta	P.S.Patil Prajakta	P.S.Patil Prajakta	P.S.Patil Prajakta
7	Budhavale Sagar Ashok	Budhavale Sagar	Budhavale Sagar	Budhavale Sagar	Budhavale Sagar	Budhavale Sagar
8	Gole Sourabh Dinkar	Gole Sourabh	Gole Sourabh	Gole Sourabh	Gole Sourabh	Gole Sourabh
9	Koli Tusha rChadrakant	Koli Tusha	Koli Tusha	Koli Tusha	Koli Tusha	Koli Tusha
10	Jadhav Atul Narayan	Jadhav Atul	Jadhav Atul	Jadhav Atul	Jadhav Atul	Jadhav Atul
11	Lokhande Shubham V	Lokhande Shubham	Lokhande Shubham	Lokhande Shubham	Lokhande Shubham	Lokhande Shubham
12	Dhabugade Rushikesh	Dhabugade Rushikesh	Dhabugade Rushikesh	Dhabugade Rushikesh	Dhabugade Rushikesh	Dhabugade Rushikesh
13	Mulla Misba jamirahmad	Mulla Misba	Mulla Misba	Mulla Misba	Mulla Misba	Mulla Misba
14	Mane Mohini Sandip	Mane Mohini	Mane Mohini	Mane Mohini	Mane Mohini	Mane Mohini
15	Mane Nilam Sampat	Mane Nilam	Mane Nilam	Mane Nilam	Mane Nilam	Mane Nilam
16	Gaiwad Prajakta Nagesh	Gaiwad Prajakta	Gaiwad Prajakta	Gaiwad Prajakta	Gaiwad Prajakta	Gaiwad Prajakta
17	Patil Asavari Shivaji	Patil Asavari	Patil Asavari	Patil Asavari	Patil Asavari	Patil Asavari
18	Patil Sonali Balaso	Patil Sonali	Patil Sonali	Patil Sonali	Patil Sonali	Patil Sonali
19	Jadhav Jyoti Sampat	Jadhav Jyoti	Jadhav Jyoti	Jadhav Jyoti	Jadhav Jyoti	Jadhav Jyoti
20	Patil Nikita Nagesh	Patil Nikita	Patil Nikita	Patil Nikita	Patil Nikita	Patil Nikita



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**Shri Swami Vivekanand Shikshan Sanstha, Kolhapur's
PADMABHUSHAN Dr. VASANTRAODADA PATIL
MAHAVIDYALAYA TASGAON, DIST SANGLI**

**SANSTHAMATA SUSHILADEVI SALUNKHE
ENTREPRENEURSHIP AND SKILL DEVELOPMNT
CENTER**

CERTIFICATE

This is to certify that Mr./Ms. Patil Nikita Nagesh
Class B.Sc. II has successfully completed the certificate
course in Operation and management of cold storage
conducted by the **Department of Physics** during the academic year
2019-2020.


Head


Coordinator


Principal



'Dissemination of Education through Knowledge, Science and Culture'-Shikshamaharshi Dr. Bapuji Salunkhe

**Shri Swami Vivekanand Shikshan Sanstha, Kolhapur's
PADMABHUSHAN Dr. VASANTRAODADA PATIL
MAHAVIDYALAYA TASGAON, DIST SANGLI**

**SANSTHAMATA SUSHILADEVI SALUNKHE
ENTREPRENEURSHIP AND SKILL DEVELOPMNT
CENTER**

CERTIFICATE

This is to certify that Mr./Ms. Patil Asavazi Shivaji
Class B.Sc. II has successfully completed the certificate
course in Operation and Management of Cold Storage
conducted by the **Department of Physics** during the academic year
2019-2020.


Head


Coordinator


Principal



Ref. No. :

Date :

MEMORANDUM OF UNDERSTANDING

(MoU)

BETWEEN

**PADMABHUSHAN DR. VASANTRAODADA
PATIL MAHAVIDYALAYA, TASGAON,**

AND

**TATYASHRI AGROTECH COLD STORAGE
KAVATHE-EKAND TASGAON**

FOR

**SKILL DEVELOPMENT, OUTCOME BASED
TRAININGS, PLACEMENT AND
RELATED SERVICES**

MEMORANDUM OF UNDERSTANDING

This **Memorandum of Understanding (MOU)** is entered into on this the 15th July 2019, by and between

Padmabhushan Dr. Vasantodada Patil Mahavidyalaya, Tasgaon represented here in by **Prin. Dr. Milind S. Hujare**

AND

Tatyashri Agrotech Cold Storage Kavathe-Ekand, Tasgaon and represented here in by **Proprietor, Satish Laxman Mali, Tasgaon**

WHEREAS:

- A) First Party is a Higher Educational Institution named: **Padmabhushan Dr. Vasantodada Patil Mahavidyalaya, Tasgaon.**
- B) First Party and Second Party believe that collaboration and co-operation between themselves will promote more effective use of each of their resources, and provide each of them with enhanced opportunities.
- C) The Parties intent to cooperate and focus their efforts on cooperation within area of Skill Based Training. Providing resources for conducting certificate course.
- D) Both Parties, being legal entities in themselves desire to sign this MOU for advancing their mutual interests.
- E) **Tatyashri Agrotech Cold Storage Kavathe-Ekand, Tasgaon**, the Second Party is engaged in Business, Manufacturing, Skill Development and Training in the fields of Cold storages and related fields

NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, THE PARTIES HERE TO AGREE AS FOLLOW

CLAUSE 1
CO-OPERATION

Both Parties are united by common interests and objectives, and they shall establish channels of communication and co-operation that will promote and advance their respective operations within the Institution and its related wings. The Parties shall keep each other informed of potential opportunities and shall share all information that may be relevant to secure additional opportunities for one another.

First Party and Second Party co-operation will facilitate effective utilization of the intellectual capabilities of the faculty of First Party providing significant inputs to them in developing suitable teaching / training systems, keeping in mind the needs of the industry, the Second Party.

The general terms of co-operation shall be governed by this MOU. The Parties shall cooperate with each other and shall, as promptly as is reasonably practical, enter into all relevant agreements, deeds and documents as may be required to give effect to the actions contemplated in terms of this MOU. The term of Definitive Documents shall be mutually decided between the Parties. Along with the Definitive Documents, this MOU shall represent the entire understanding as to the subject matter hereof and shall supersede any prior understanding between the Parties on the subject matter hereof.

CLAUSE 2
SCOPE OF THE MoU

The budding graduates from the institutions could play a key role in technological up gradation, innovation and competitiveness of an industry. Both parties believe that close co-operation between the two would be of major benefit to the student community to enhance their skills and knowledge.

Curriculum Design: Second Party will give valuable inputs to the First Party in teaching / training methodology and suitably customize the curriculum so that the students fit into the industrial scenario meaningfully.

Industrial Training & Visits: Industry and Institution interaction will give an insight in to the latest developments / requirements of the industries; the Second Party to permit the Faculty and Students of the First Party to visit its group companies and also involve in Industrial Training Programs for the First Party. The industrial training and exposure provided to students and faculty through this association will build confidence and prepare the students to have a smooth transition from academic to working career. The Second Party will provide its Firms / Industrial Sites for the hands-on training of the learners enrolled with the First Party.

Skill Development Programs: Second Party to train the students of First Party on the emerging technologies in order to bridge the skill gap and make them industry ready.

Guest Lectures: Second Party to extend the necessary support to deliver guest lectures to the students of the First Party on the technology trends and in house requirements.

Faculty Development Programs: Second Party to train the Faculties of First Party for imparting training as per the industrial requirement considering the National Occupational Standards in concerned sector, if available.

Placement of Trained Students: Second Party will actively engage to help the delivery of the training and placement of students of the First Party into internships/jobs; and will facilitate placements.

Both Parties to obtain all internal approvals, consents, permissions, and licenses of whatsoever nature required for offering the Programmes on the terms specified here in. There is no financial commitment on the part of the, Padmabhushan Dr. Vasantodada Patil Mahavidyalaya, Tasgaon the First Party to take up any programme mentioned in the MoU. If there is any financial consideration, it will be dealt separately.

CLAUSE 3 INTELLECTUAL PROPERTY

Nothing contained in this MOU shall, by express grant, implication, Estoppel or otherwise, create in either Party any right, title, interest, or license in or to the intellectual property (including but not limited to know-how, inventions, patents, copy rights and designs) of the other Party.

CLAUSE 4 VALIDITY

This Agreement will be valid until it is expressly terminated by either Party on mutually agreed terms, during which period **Tatyashri Agrotech Cold Storage Kavathe-Ekand Tasgaon**, the Second Party, as the case may be, will take effective steps for implementation of this MOU. Any act on the part of **Tatyashri Agrotech Cold Storage Kavathe-Ekand Tasgaon**, the Second Party after termination of this Agreement by way of communication, correspondence etc., shall not be construed as an extension of this MOU.

Both Parties may terminate this MOU upon 30 calendar days' notice in writing. In the event of Termination, both parties have to discharge their obligations.

CLAUSE 5
RELATIONSHIP BETWEEN THE PARTIES

It is expressly agreed that **First Party** and **Second Party** are acting under this MOU as independent contractors, and the relationship established under this MOU shall not be construed as a partnership. Neither Party is authorized to use the other Party's name in any way, to make any representations or create any obligation or liability, expressed or implied, on behalf of the other Party, without the prior written consent of the other Party. Neither Party shall have, nor represent itself as having, any authority under the terms of this MOU to make agreements of any kind in the name of or binding upon the other Party, to pledge the other Party's credit, or to extend credit on behalf of the other Party.

Any divergence or difference derived from the interpretation or application of the MoU shall be resolved by arbitration between the parties as per the Arbitration Act, 1996. The place of the arbitration shall be at District Head Quarters of the First Party. This undertaking is to be construed in accordance with Indian Law with exclusive jurisdiction in the Courts of Tasgaon.

AGREED:



Tatyashri Agrotech Cold Storage


Proprietor

Mr. Satish Laxman Mali
Proprietor
Tatyashri Agrotech Cold Storage
Kavathe-Ekand Tasgaon
Gat No. 1819, Tasgaon-Sangli Road,
Kavathe-Ekand, Tal-Tasgaon,
Dist: Sangli 416307


Principal

Padmabhushan Dr. Vasantodada Patil
Mahavidyalaya, Tasgaon. (Sangli)

Prin. Dr. Milind S. Hujare
Principal
Padmabhushan Dr. Vasantodada Patil
Mahavidyalaya, Tasgaon
Dattamal, Tasgaon
Tal: Tasgaon, Dist: Sangli 416312