

Flour Milling Training



Distance Learning Programme



www.nabim.org.uk



Course Guide 2011-12



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Course Guide 2011-2012

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Welcome

to the

nabim Flour Milling Correspondence Courses



Welcome

nabim is the trade association and industry training organisation for the UK flour milling industry. Each year we run our modular correspondence courses to provide millers with an essential knowledge and understanding of the flour milling industry.

Each year the courses are studied by hundreds of students from around the world and lead to the nabim Advanced Certificate in Flour Milling.

For each module, students are allocated a tutor to whom they submit work throughout the course year. The tutors are all experienced in the operation and management of flour mills, providing students with expert assistance in their training.

Should you require any further information or assistance please do not hesitate to contact us directly or visit our website - www.nabim.org.uk

nabim

INCREASE YOUR POTENTIAL

The courses are an excellent training programme for those new to the industry, an indispensable tool for developing the skills of the competent miller and valuable refresher training. Full details can also be found online at www.nabim.org.uk

The **nabim** Flour Milling Training Programme is structured into seven modules, providing a flexible training package that covers the full spectrum of milling subjects...

“With the knowledge gained from the course together with my experience within flour milling, I was promoted to the post of shift miller (from trainee miller) then chief miller, and now flour mill director. I must say thank you to the **nabim** courses, and advise those who want to be professional in the flour milling industry, that the **nabim** courses are really the key to success”.

Mr Pham Thanh Bang, *Director*
Hung Quang Flour Mill,
Vietnam, and former
Gold Medal
winner.



Seven Modules

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The Seven Modules on offer are:

Module Title	Code
- Hygiene, Health and Safety	101
- Wheat and the Screenroom	102
- Mill Processes and Performance	103
- Product Handling, Storage and Distribution	104
- Flour	105
- Power and Automation	106
- Flour Milling Management	107

Flexible Training

The Modules may be studied in any order and in any combination; students are not required to have any previous qualifications. Students are encouraged to study between 1 and 3 modules in their first year (approx 12 hours minimum study time per module).

Detailed information about each of the modules and the subjects they cover can be found on pages 11 -18.

Details of our programme's tutor support and the role of the mentor can also be found on page 10.

For over 70 years **nabim** has run correspondence courses for students across the world. **nabim** has always been aware of the need to review its training on a regular basis and make improvements as and when appropriate. As such the correspondence courses have evolved into the **successful industry standard** they are today.

Qualifications

nabim Certificates and Medals



Qualifications

nabim awards a Record of Achievement to students on passing individual modules. In addition **nabim** also awards two certificates:

- **The Intermediate Certificate** on passing Modules 1,2,3 and 4
- **The Advanced Certificate** on passing all seven Modules.

nabim Certificates and Medals

The correspondence course student who scores the highest mark in each modular examination is awarded a **nabim** Certificate of Achievement. In addition, two medals are available to all examination candidates, Silver and Bronze. The silver medallist is also invited to write a thesis on an agreed milling topic. If assessed worthy of the award, the **nabim** Gold Medal is presented.



Silver Medal

– Awarded to the candidate obtaining the Advanced Certificate with the best performance over all seven modules.



*Michael Eke (UK),
2010 Silver Medal Winner* ▶

Bronze Medal – Awarded to the runner-up to the Silver Medal.



*Former Bronze Medal Winners,
Virginia Liu (New Zealand,
left) and Iddi Nyangau (Tanzania)*



Examinations

Registration and Fees

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Examinations

Each module will be examined in one written paper lasting for between 2 and 3 hours; the examination timetable is on page 19. There will be no choice of questions.

Registering for the Examinations

Students enrolling on **nabim** courses in 2011 will be working towards taking a **nabim** examination in May 2012.

To take the examination, students must register at an approved **nabim** Examination Centre and pay any examination fees due locally. The deadline for exam registration with **nabim** is 28 February but Examination Centres may have their own earlier deadlines.

nabim will inform its examination centres of the candidates who have been registered to sit the examinations there; this will be done using the information supplied by students on their enrolment forms.

However, mentors must contact the centres themselves to ensure that administrative arrangements are in place and local fees paid.

Further Information

All Students enrolling on the correspondence courses this year will be registered at **nabim** for their examinations at the same time.

The course enrolment fee includes the fee charged by **nabim** for taking the examination in May 2012.

Non-students wishing to register for the examination only will be charged a £60 registration fee by **nabim**.

Payment may be made by cheque (made payable to 'nabim Ltd') or by BACS.

Examination Centres may impose local registration fees which must be settled by the student or their sponsoring employer.

Lessons and Workbooks



Lessons and Workbooks

The students' textbooks and Lesson Workbooks are sent to Mentors once the enrolment has been processed, and should arrive by mid-September, provided that the enrolment was received before 13 August 2010. Enrolments received after that date may suffer a delay in processing.

However, if course materials have not been received by mid-October, **nabim** should be contacted immediately.

Additional copies of the textbook (for example, for Mentors' use) may be ordered from **nabim** using the special order form which can be found on the **nabim** website at www.nabim.org.uk/publications.asp

*Please note that photocopying of the textbooks would be a breach of **nabim**'s copyright. In such an event, **nabim** will consider taking legal action to obtain compensation.*

The **nabim** website provides a further point of contact between students and the tutors whilst also providing a selection of additional resources.



nabim Coursework Certificate

The coursework certificate will be awarded to all students who complete, to a satisfactory standard, all 4 lessons within the module lesson books. The certificate is awarded to recognise the hard work and effort the student has put in throughout the course year, even if they do not pass the examination.

Enrolments

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Tel: +44 (0)20 7493 2521
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E-mail: info@nabim.org.uk

How to Enrol for this year's courses...

Enrolments should be made on the proper enrolment form. Photocopied forms are acceptable but additional forms may be obtained from nabim or downloaded from the website.

It is important to complete all parts of the enrolment form, including the personal, mentor, company and examination centre details.

Please send the enrolment forms together with the correct fees to:

Correspondence Courses
Employment Affairs Department
21 Arlington Street
London
SW1A 1RN
United Kingdom

Enrolment forms should be returned to before 13 August 2011; later enrolments may be delayed in processing.

DID YOU KNOW ?

Last year nabim received well over 700 course enrolments from 30 different countries around the world.

Course Fees

The basic charge per module (including nabim exam registration) is **£310** (plus VAT at 20% where applicable)

Discounts

nabim Members: £100, so giving a fee per module of **£210** plus VAT

Non-UK companies: £50, so giving a fee per module of **£260**.

NB: These fees include the nabim exam registration fee. (Examination Centres may impose their own additional registration fees which must be settled locally by the student or their sponsoring employer.)

Discounted Fees per Module

nabim members	£210
non-UK companies	£260

Tutors and Mentors



Developed for Millers by Industry Professionals

Tutors

Every student is allocated one tutor per module. The student will be informed of their tutor and be supplied with the appropriate address labels when the module lessons are sent out; the student should send all scripts for that module to the allocated tutor, who will mark and return them. The tutors' depth of knowledge is reflected in the professional and specialist advice they provide for the student.

Mentors

It is strongly recommended that, for each student it enrolls on the correspondence course, the mill appoints a suitable person to be made specifically responsible for assisting the student in their studies. This person is hereafter referred to as the mentor. Where a mill enrolls more than one student, it may wish to allocate one mentor for all students. The mentor should be indicated on the enrolment form in the space provided.

The Role of the Mentor

The mentor should encourage the student to participate fully in the course.

For each lesson, the mentor should discuss the subject matter with the student; particularly where the lesson covers subjects outside their normal practical experience, the mentor may also arrange for the student to spend time in the relevant area of the mill and/or to speak to suitably qualified personnel on site.

Mentors should address any difficulties the students maybe having by discussing the returned lessons and the students answers.

The mentor should ensure that the student is registered to take their examination at an approved centre and that they are aware of the date and venue for the examination.

DEDICATED TUTOR SUPPORT

The **nabim** programme provides dedicated tutor support for every student, giving professional guidance and specialist advice throughout the course year.

MODULES



2011-2012

Module 1

Hygiene, Health and Safety



This course considers the safety hazards to be found in a flour mill, including fire and dust explosions, and the means of avoiding them; the framework for providing a safe and healthy working environment; good hygiene practice, including cleaning schedules and the dangers of infestation.

Module 1 is an essential course for all new flour millers, health and safety personnel and those working towards the **nabim** Advanced Flour Milling Certificate.

Topics Covered:

- Hazards and Precautions
- Dust Explosions
- Fire Prevention
- Risk Assessment
- Accident Prevention
- Legal Responsibilities
- Health and Safety Culture
- Planning for Safety
- Environmental Impact
- Hygiene
- Pests of Stored Wheat and Flour
- Pest Prevention



Examination

The date for examination on this module is **Tuesday 8 May 2012** and will accord with the test specification to be finalised shortly and to be set out in the course workbook.

Duration: 2 hours, 8 questions

Test Specification

Hazards and precautions	4 questions
Legal responsibilities, Health and safety culture, Planning and implementation	2 questions
Environment, hygiene and pest prevention	2 questions

Sample Question

Name three potential hazards relevant to the flour milling industry and state what precautions should be taken to minimise risk.

MOD 1

Module 2

Wheat and the Screenroom

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From the wheat in the field, to cleaned and conditioned grains, ready for milling, this module covers the structure, characteristics and production of the industry's major raw material.

The module provides a comprehensive tutorial of wheat intake, storage and cleaning procedures; the operation of a modern screenroom; the conditioning, drying and mixing of wheats.

Topics Covered:

- The Wheat Plant
- Wheat Varieties
- Wheat Production
- Wheat Intake
- Wheat Storage
- Wheat Cleaning
- The Screenroom
- Treatment and Disposal of Screenings
- Adjustment and Maintenance of Plant
- Wheat Damping
- Conditioning and Drying Wheat



Examination

The date for examination on this module is **Wednesday 9 May 2012** and will accord with the test specification below.

Duration: 2 hours, 8 questions

Test Specification

The wheat plant, varieties and production	2 questions
Wheat intake and storage	2 questions
Wheat cleaning and the screenroom	2 questions
Wheat damping, conditioning, drying, mixing and measuring	2 questions

Sample Question

- Explain the differences between winter and spring wheat.
- Explain how the relative strength of wheat is defined.

MOD2

Module 3



Mill Processes and Performance

This course addresses the history and practice of the modern flour milling operation; mill machinery and processes; the manufacture of different flours and co-products; the importance and achievement of mill balance; the measurement and improvement of mill performance.

Students will gain an understanding of break, scratch and reduction systems; scalping and grading; purification; and flour dressing, whilst also being able to demonstrate a working knowledge of general milling principles.

Topics Covered:

- Milling History
- Modern Flour Milling
- Milling Machines
- Flour Processing
- Production of Bran, Wheatfeed and Germ
- Wholemeal and Brown Flours
- Mill Balance
- Mill Performance



Examination

The date for examination on this module is **Thursday 10 May 2012** and will accord with the test specification below.

Duration: 2½ hours, 10 questions

Test Specification (Provisional)

Milling - historical and modern 3½ questions

Milling machines and pneumatic conveying 2 questions

Flour processing and redressing; Production of bran, wheatfeed, germ, wholemeal and brown flour 1½ questions

Mill balance and performance 3 questions

Sample Question

Draw a simple flow diagram including all the main elements of the milling process.

MOD 3

Module 4

Product Handling, Storage and Distribution

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This course considers the bulk storage of flour and co-products; the practice of flour blending; handling and storage of packed flour; warehousing; vehicles used to transport finished products and their loading and unloading; pests of stored wheat and flour and their control.

Recently updated, this course is covered in 4 lessons, providing an indispensable guide to materials handling, storage and distribution.

Topics Covered:

- Bulk Storage
- Flour Blending
- Packing
- Packed Product Storage and Handling
- Despatch
- Distribution
- Infestation Control



Examination

The date for examination on this module is **Monday 14 May 2012** and will accord with the test specification below.

Duration: 2 hours, 8 questions

Test Specification

Materials flow; Bulk storage; Flour blending	2 questions
Packing and palletising; Packed product storage;	3 questions
Despatch and distribution; Infestation control	3 questions

Sample Question

Describe with the aid of a sketch the TWO types of bin exhaust system available to the miller.

Module 5

Flour



This course covers the functionality and types of flour commonly milled; the flour treatments the miller may use; the measurement and control of quality; the numerous laboratory tests a miller may perform on wheat and flour to ensure specifications are met; breadmaking and a wide range of other flour uses.

This module is an introduction to the flour millers finished product, upon completion students will be able demonstrate an understanding of flour types and flour quality.

Topics Covered:

- Types of Flour
- Flour Grades
- Quality Assurance
- Laboratory tests on Wheat and Flour
- Breadmaking
- Biscuits, Cakes and Pastry

Examination

The date for examination on this module is **Tuesday 15 May 2012** and will accord with the test specification below.

Duration: 2½ hours, 7 questions

Test Specification

Definitions and types of flour; Quality assurance	1½ questions
Laboratory tests on wheat and flour	3 questions
Bread	1½ questions
Other flour products	1 question

Sample Question

What factors affect grain purity and what level of screenings may attract an allowance in an incoming load of grain?

Module 6

Power and Automation

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This course studies the sources and transmission of power in the mill; pneumatic and mechanical conveying; instrumentation used for measurement in the mill; the programmable logic controller; process control systems in the milling industry.

Students will gain valuable knowledge of the principles governing electric motors and will be able to explain the importance of efficient use of energy within the mill.

Topics Covered:

- Evolution and Automation
- Utilities
- Transmission of Power
- Use and Application of Air
- Pneumatic Conveying
- Measurement
- The Programmable Logic Controller
- Process Control Systems

Examination

The date for examination on this module is **Wednesday 16 May 2012** and will accord with the test specification below.

Duration: 2½ hours, 7 questions

Test Specification

Automation; Utilities; Transmission of power; Use of air; Pneumatic conveying	4 questions
Measurement	1 question
PLCs and Process control systems	2 questions

Sample Question

What points should be taken into consideration to ensure the correct and safe operation of a V-belt drive?

Module 7

Flour Milling Management

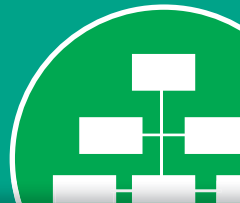


The final module in the set of 7, in 4 lessons this course gives the student a complete overview of Flour Milling Management.

This course provides a background to the flour milling industry; the location and design of flour mills; the staffing and organisation of mills; the role of the miller as employer; the responsibility to protect product, people and environment; financial considerations of the flour milling business.

Topics Covered:

- The Flour Milling Industry
- The Flour and Wheat Markets
- Commercial Management
- Flour and Food Safety
- Hazard Analysis Critical Control Points
- Mill Location and Design
- Operations Management
- People Management



Examination

The date for examination on this module is **Thursday 17 May 2012** and will accord with the test specification below.

Duration: 3 hours, 9 questions

Test Specification (Provisional)

The flour milling industry; flour and wheat markets	1½ questions
Commercial management	2½ questions
Flour as a product; mill location and design	2 questions
Operations management; People management	3 questions

Sample Question

- List the factors that influence staffing levels in a flour mill.
- Select TWO of these factors and describe in detail how they affect staff numbers.

MOD 7

Timetable

of events and examinations

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2011

1 June - Enrolments for the 2011-2012 course year begin.

13 August - First 'deadline' for course enrolments

September - Lesson work books and course textbooks delivered to Mentors/Students.

December - Students should make sure that arrangements are in place for them to sit their May 2012 examinations at an approved centre.

2012

28 February - Deadline for **nabim** exam registration.

March - Student sponsors should contact their exam centres to ensure administrative arrangements are in place.

May - Examinations at approved **nabim** exam centres.

July - **nabim** issues examination results to students via their mentors. Pass lists published on **nabim** website.

2012 Examination Timetable

Module 1

Tuesday 8th May - 9.30am - 11.30am

Module 2

Wednesday 9th May - 9.30am - 11.30am

Module 3

Thursday 10th May - 9.30am - 12.00 noon

Module 4

Monday 14th May - 9.30am - 11.30am

Module 5

Tuesday 15th May - 9.30am - 12.00 noon

Module 6

Wednesday 16th May - 9.30am - 12.00 noon

Module 7

Thursday 17th May - 9.30am - 12.30pm

"I would recommend employees working in any area of the milling and associated industries to complete the 7 modules. It gives a clear and comprehensive overview of all the important areas of the industry. It allows you to understand other people's problems and priorities; and gives you an opportunity to discuss issues between other employees with confidence"

Vanessa Barlow, Q/A and Systems Manager, **Rank Hovis Ltd**, UK.

*Vanessa Barlow being awarded the **nabim** Silver Medal. Vanessa later went on to achieve gold!*





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