



NAFEMS Education and Training Working Group (ETWG)

ETWG Handbook

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1. ETWG Terms of Reference

The NAFEMS Education and Training Working Group (ETWG) is formed to examine the education and training needs for all numerical analysts and to provide information and documents to satisfy these needs.

Aims

To provide the educational and training material to satisfy the requirements of:

- (i) Less-experienced analysts, to enable them to produce reliable and accurate numerical predictions.
- (ii) More-experienced analysts, to enable them to extend their area of expertise and to share their knowledge and expertise with the wider community.

Working Group Membership

- The ETWG will consist of a Chairman and full members. Members are expected to participate in ETWG meetings either by attending in person or, if they reside outside the UK, by correspondence.
- ETWG membership will be reviewed regularly, at least every two years.

Meetings

The ETWG will meet as required, at least three times per year. Minutes of the meetings will be sent to NAFEMS for circulation among other NAFEMS Working Group chairmen.

Deliverables

- The ETWG will commission educational and training documents for NAFEMS members and the wider engineering analysis community. The publications will be in the form of textbooks, How To booklets, Beginners' Guides; Practical guidelines, web-based presentations, etc.
- Deliverables will be commissioned by issuing an open Invitation to Tender. Approved bids will be commissioned through a formal NAFEMS contract. Individuals or organisations with the appropriate experience may be approached to bid for tenders.
- At least two referees will be appointed to review each ETWG deliverable.

Accreditation of Courses

The ETWG is responsible for accrediting courses run by NAFEMS and other external agencies. A formal NAFEMS accreditation procedure will be followed. If appropriate, the ETWG will issue guidelines for the technical content and assessment methods of accredited courses.

2. ETWG Mission Statement

To provide an environment in which simulation practitioners can demonstrate appropriate skills and knowledge.

This requires the ETWG to:

1. Develop an education and training environment to ensure an adequate level of skill and knowledge for simulation practitioners.
 - Define what we mean by an adequate level (or levels).
 - Define a route (or routes) by which practitioners can gain this skill and knowledge.
 - Provide a mechanism by which practitioners can verify that they have achieved this standard (or standards).
2. Develop an environment and processes for continuous professional development of simulation practitioners.
 - Define an acceptable volume and depth of activity for professional development.
 - Provide a mechanism by which practitioners can verify that they have satisfied these requirements.

ETWG Tasks

NAFEMS Education and Training Working Group has 4 main tasks. These are:

- To produce educational documents
- To accredit training courses and to monitor their delivery
- To develop a set of tests for personal accreditation.

3. ETWG Procedure for Accreditation of Courses

Step 1 (Submission by Course Director)

The Course Director is asked to submit the following (directly to the NAFEMS Office):

- Course details (course title, date of the next course, expected frequency, venue) using the relevant form below.
- Course syllabus (broken into subject areas and lecture hours).
- CVs of all teaching staff contributing to course (maximum two pages per CV).
- General statement on teaching facilities (for example computer and software availability, visual aids, etc.).
- Suggested procedure for reviewing the course following feedback from delegates and NAFEMS.

Step 2 (NAFEMS Provisional Accreditation)-Within 2 months

- NAFEMS will acknowledge receipt of the application and forward the application to the Chairman of the ETWG.
- NAFEMS may grant provisional accreditation for the initial course based on the written application or may interview the Course Director before granting provisional accreditation. Once formal notice of the provisional accreditation has been received, the applicant may quote "NAFEMS-accredited course" when advertising the course.
- NAFEMS will provide a feedback questionnaire to be given to delegates after completing the course (see relevant form below)

Step 3 (Post-Course Feedback questionnaires)- Within 1 month

After the course, the Course Director is asked to submit the following (to the NAFEMS Office):

- Copies of all completed NAFEMS Feedback Questionnaires
- A one-page Feedback summary (see relevant form below).
- A complete set of lecture notes and/or PowerPoint slides (either printed or electronic copies).
- NAFEMS' registration fee. Delegates must be informed that they have to complete the questionnaire before receiving a Course Attendance Certificate from NAFEMS.
- Provisional dates of any subsequent planned courses.

Step 4 (NAFEMS Post-Course Review)- Within 3 months

- NAFEMS will issue attendance certificates to the course delegates on receipt of the completed questionnaires and registration fees.
- NAFEMS ETWG will review the course documentation and completed questionnaires.
- Following a successful review, full accreditation will be granted. Any comments from the ETWG will be forwarded to the Course Director.

General Conditions

- Any changes in the course objectives, content or lecturing staff should be notified in writing to NAFEMS.
- NAFEMS reserves the right for a representative to attend all or part of the lecture course, free of charge, to monitor standards.
- NAFEMS reserves the right to interview the applicant at any time to discuss the course content and objectives.
- NAFEMS reserves the right to withdraw accreditation once granted.

Application for NAFEMS Course Accreditation
(Front Page Template)

Course Director	
Course Title	
Total number of contact hours	
Course dates	
Course Venue	
Names of all lecturers	
Date of submission	

Please tick as appropriate:

- Course syllabus (broken into subject areas and lecture hours).
- CVs of all teaching staff contributing to course (maximum two pages per CV).
- General statement on teaching facilities (for example computer and software availability, visual aids, etc.).
- Suggested procedure for reviewing the course following feedback from delegates and NAFEMS

ETWG Course Feedback Forms (Classroom Courses)

To course Delegates: To receive the [NAFEMS Certificate of Attendance](#), you need to complete this form and return it either to the Course Organizer or directly to the NAFEMS Office.

Course Director	
Course Title	
Course dates	
Course Venue	
Name of Attendee	
Company/ Organisation	
Address <i>(to which the NAFEMS Certificate will be posted)</i>	
Telephone	
Email	

Please indicate your assessment of the course by **circling** one option in the following categories

(a) Technical Content	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly agree</i>
1. The lectures were clearly constructed	★	★★	★★★	★★★★	★★★★★
2. The explanations given were clear	★	★★	★★★	★★★★	★★★★★
3. The examples given were relevant	★	★★	★★★	★★★★	★★★★★
4. The course lecturers were well prepared	★	★★	★★★	★★★★	★★★★★
5. The Lecturers answered Questions	★	★★	★★★	★★★★	★★★★★
6. The course syllabus was covered as advertised	★	★★	★★★	★★★★	★★★★★
7. The course notes were of good quality	★	★★	★★★	★★★★	★★★★★
8. The course was independent from any software code	★	★★	★★★	★★★★	★★★★★

(b) Course Organisation	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly agree</i>
9. The course was relevant to my organization	★	★★	★★★	★★★★	★★★★★
10. The venue room was good	★	★★	★★★	★★★★	★★★★★
11. The venue location was good	★	★★	★★★	★★★★	★★★★★
12. The course was good value for money	★	★★	★★★	★★★★	★★★★★
13. The booking procedure and pre-course organization were good	★	★★	★★★	★★★★	★★★★★

Please add any specific comments overleaf or on a separate sheet

Post-Course Course Director's Summary (Classroom Courses)

Please send this form to the NAFEMS within one month of course completion

Course Director	
Course Title	
Course dates	
Course Venue	
Number of Attendees	
Number of feedback forms received	

(a) Technical Content	<i>Average score</i>
1. The lectures were clearly constructed	
2. The explanations given were clear	
3. The examples given were relevant	
4. The course lecturers were well prepared	
5. The Lecturers answered Questions	
6. The course syllabus was covered as advertised	
7. The course notes were of good quality	
8. The course was independent from any software code	
Average score of the above=	

(b) Course Organisation	<i>Average score</i>
9. The course was relevant to my organization	
10. The venue room was good	
11. The venue location was good	
12. The course was good value for money	
13. The booking procedure and pre-course organization were good	
Average score of the above=	

Course Director's Comments (if any):

ETWG Course Feedback Form (e-Learning Courses)

To course Delegates: To receive the [NAFEMS Certificate of Attendance](#), you need to complete this form and return it either to the Course Organizer or directly to the NAFEMS Office.

Course Director	
Course Title	
Course dates	
Course Venue	
Name of Attendee	
Company/ Organisation	
Address <i>(to which the NAFEMS Certificate will be posted)</i>	
Telephone	
Email	

Please indicate your assessment of the course by **circling or ticking** one option in the following categories

Technical Content (e-Learning Courses)	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly agree</i>
1. The pre-course lecture notes/slides were of good quality	★	★★	★★★	★★★★	★★★★★
2. The online lecture slides were of good quality	★	★★	★★★	★★★★	★★★★★
3. The explanations given during the online lectures were clear	★	★★	★★★	★★★★	★★★★★
4. The time slots for the online session were appropriate	★	★★	★★★	★★★★	★★★★★
5. The examples given in the course were relevant	★	★★	★★★	★★★★	★★★★★
6. The course lecturers were well prepared	★	★★	★★★	★★★★	★★★★★
7. The course syllabus was covered as advertised	★	★★	★★★	★★★★	★★★★★
8. During the online session, questions were answered adequately	★	★★	★★★	★★★★	★★★★★
9. After the online session, questions were answered within a reasonable time	★	★★	★★★	★★★★	★★★★★
10. The course was independent from any software code	★	★★	★★★	★★★★	★★★★★

Please add any specific comments overleaf or on a separate sheet

Post-Course Course Director's Summary (e-Learning Courses)

Please send this form to the NAFEMS within one month of course completion

Course Director	
Course Title	
Course dates	
Course Venue	
Number of Attendees	
Number of feedback forms received	

Technical Content (e-Learning Courses)	<i>Average score</i>
1. The pre-course lecture notes/slides were of good quality	
2. The online lecture slides were of good quality	
3. The explanations given during the online lectures were clear	
4. The time slots for the online session were appropriate	
5. The examples given in the course were relevant	
6. The course lecturers were well prepared	
7. The course syllabus was covered as advertised	
8. During the online session, questions were answered adequately	
9. After the online session, questions were answered within a reasonable time	
10. The course was independent from any software code	
Average score of the above=	

Course Director's Comments (if any):

6. ETWG Guidelines for NAFEMS Reviewers

NAFEMS deliverables will normally have two reviewers; a First Reviewer and a Second Reviewer.

Review Procedure

1. Author sends the deliverable (WORD file) to the WG Chairman who will forward it to the two Reviewers.
2. WG members are asked if they would like to informally review the deliverable. A deadline is set for sending informal comments directly to the First reviewer. If the subject area is of interest to other WGs, the document will also be sent to the relevant WG chairmen.
3. First Reviewer and Second Reviewer independently review the document.
4. First Reviewer collects the comments of the Second Reviewer (and, if any, informal comments from WG members).
5. If required, First Reviewer communicates informally with the author to clarify any queries.
6. First Reviewer compiles a joint Review Report incorporating the comments of the Second Reviewer and other informal comments. The Review Report should be completed **within two months** from receiving the deliverable.
7. First Reviewer sends the Review Report to the author (and a copy to the WG Chairman). If appropriate, an annotated WORD file may also be sent to the author.
8. Author submits a response to the Reviewers' comments and the final revised document to the WG Chairman (who will forward it to the First and Second Reviewers).
9. First Reviewer checks the revised document, and, if required, contacts the author to resolve any remaining issues **within one month**.
10. First Reviewer sends to the author (and WG Chairman) a confirmation that the final document is acceptable for publication.
11. WG Chairman authorises the agreed payments to the two reviewers.
12. Author sends camera-ready final copy (WORD File) to the WG Chairman.
13. WG Chairman authorises the agreed payments to the author and passes the WORD file to NAFEMS for converting into a PDF format.
14. NAFEMS office sends the PDF file to the author for a final check, with a copy to the WG Chairman.

The Review Report

The Review Report should incorporate the comments of the two reviewers and should typically be divided into the following sections:

- Section 1: General Overview of the document
- Section 2: Essential Amendments (if any)
- Section 3: Preferred Amendments (if any)
- Section 4: Typographical and Format Amendments (if any)
- Section 5: Conclusions

Note regarding the standard of English: The Review Report should indicate whether the document has been checked for language/grammar or not. If language corrections have not been attempted by the Reviewers, NAFEMS will appoint a copy editor for the document.

7. ETWG Template for Invitation to Tenders

Title of Book
Readership:	This book should be aimed at a graduate level industrial user who is familiar with basic linear FE analysis, but is inexperienced in
Content:	The following topics are expected to be included:
Cost:	The total cost is not expected to exceed £7,000. It is expected that the book will be completed within 12 months from NAFEMS approval.
Proposals:	Potential authors should submit the following: - A brief description of the main topics to be covered - Chapter and section headings with an approximate number of pages per chapter - Timescale for completing the book - Cost - CVs of the authors (Maximum two-pages per author)
References	Applicants are advised to study existing NAFEMS publications in this field before submitting a bid. The following NAFEMS publications are relevant in this field:
Closing date:	Deadline to be decided by NAFEMS
E-mail proposals to:	etwg@nafems.org

8. ETWG Document Formatting Guidelines

Font Type	Times New Roman Non proportional spacing acceptable for tables Other fonts acceptable within figures
Font Size & Attributes	Main text- 10 pt Top level section headings- 16 pt- Bold Lower level section headings- 10 pt- Bold Figure numbers and titles- 10 pt- Italic Headers- 10 pt - Upper case Page numbers - 10 pt
Page Set Up	Paper Size Custom Width 148 mm Height 230 mm Orientation Portrait
Margins	Top 20 mm Bottom 25 mm Inside 15 mm Outside 15 mm Header 12.7 mm Footer 12.7 mm Gutter 0 mm
Numbering system	Sections 3 level decimal Figures 2 level decimal Lists alphabetic (not bulleted) Pages sequential at bottom centre (starting at 1 for each example)
Spacing	Text single line Paragraphs double line without inset Top level sections triple line without inset Second level sections triple line without inset Third level sections double line
Headers	left pages - top left: Book Title Capitalised right pages - top right: Chapter Title Capitalised
Start of Chapters	A chapter should start on the right hand side. This may necessitate “intentionally blank” pages.
Figures	Unboxed, no wrap around text
Notation	As Zienkiewicz and Taylor or NAFEMS Primer

9. ETWG Publication Sign-off Form

To be completed, signed, and enclosed with the final hard-copy of the relevant publication and mailed to NAFEMS.

Publication Name	
Publication Author	
NAFEMS Contract Number	
Working Group	ETWG
<p><i>We confirm that the publication referenced above, has been produced to the required standard outlined by NAFEMS. The publication has been thoroughly peer-reviewed by the working group, and is approved by the working group chairman for publication in its current state.</i></p>	
Authors Signature & Date	
Authors Name	
Working Group Chairman Signature & Date	
Working Group Chairman Name	