

# STANDARD

DNVGL-ST-0029

Edition June 2017

## **Maritime training providers**

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## FOREWORD

DNV GL standards contain requirements, principles and acceptance criteria for objects, personnel, organisations and/or operations.

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## CHANGES – CURRENT

This document supersedes the April 2014 edition of DNVGL-ST-0029.

Changes in this document are highlighted in red colour. However, if the changes involve a whole chapter, section or sub-section, normally only the title will be in red colour.

### Changes June 2017

#### • General

- The document has been slightly rephrased, renumbered and terminology has been aligned. Only content changes will be addressed below.
- Risk-based focus was introduced on various levels

#### • Sec.1 Application and certification

- Sec.1 [1.1.2]: Documentation to be submitted for document review added.
- Sec.1 [1.1.3]: Transition clause added.
- Sec.1 [1.2.3]: Requirement for having implemented management system for at least a period of three months added, prior to initial audit.
- Sec.1 [1.2.3] - Sec.1 [1.2.4]: Branch-offices and audit frequency added.
- Sec.1 [1.3]: Added term and abbreviation tables.

#### • Sec.2 Management

- Sec.2 [2.1.1]: Management commitment and accountability added.
- Sec.2 [2.1.4]: Responsibility and authority rewritten and new elements such as identification of interested parties and their expectation/concerns and assessment of risks introduced.
- Sec.2 [2.1.6]: Renamed *Management representation*, since also in the ISO 9001:2015 the strict requirement of assigning a management representative has been removed.
- Sec.2 [2.1.10]: New subsection, *Communication*, added.
- Sec.2 [2.2]: Quality manual removed as a requirement in line with ISO 9001:2015. Documented processes, documented information and documented routines are now used instead, meaning that a single manual is no longer required.
- Sec.2 [2.2.2]: New subsection, *Managing changes*, added.
- Sec.2 [2.3.3]: New subsection, *Maintaining accreditations*, added.
- Sec.2 [2.6]: Content added regarding staff performance, staff development, use of externally hired staff and non conforming teaching.
- Sec.2 [2.6.1]: New subsection, *Knowledge management*, added

#### • Sec.3 Development and maintenance

- Sec.3 [3.1]: Requirement for having a documented procedure for development and maintenance added.
- Sec.3 [3.3]: Assessing risks associated with developed learning programmes added.
- Sec.3 [3.4]: Maintenance of learning programmes (review and revision) added.
- Sec.3 [3.4.1]: Using a mixed variety of teaching methods added as a requirement.

- **Sec.4 Operations**

- **Sec.4 [4.2.1]**: Routine for handling emergency situations during class activities added.
- **Sec.4 [4.2.3]**: Hazardous materials, goods and substances added.
- **Sec.4 [4.2.4]**: Use of simulators, incl. STCW approval expectations, added.

- **Sec.5 Performance**

- **Sec.5 [5.1.4]**: Requirement for having multiple assessments added.
- **Sec.5 [5.2]**: New subsection, *Trainee certificates*, added.

## **Editorial corrections**

In addition to the above stated changes, editorial corrections may have been made.

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## SECTION 1 APPLICATION AND CERTIFICATION

### 1.1 Scope and application

#### 1.1.1 Scope

This standard gives certification requirements for organizations offering academic and/or vocational training or education leading to the issuance of certificates. The standard aims to support organizations in managing their processes related to development, delivery and evaluation of learning programmes, ensuring that these are properly designed, contain clear objectives, are carried out by qualified instructors and are evaluated and improved in line with market demands and experience.

#### 1.1.2 Application

This standard may be applied to all organizations developing and offering learning programmes, either delivered in a classroom setting, in the workplace, through the use of simulators, computer based solutions or in combination.

#### 1.1.3 Transition

Initial audits or renewal audits shall at all times be performed against this standard. organizations certified against a previous version of this standard may request to use an annual audit to make the transition to this standard. Otherwise, annual audits during the validity of the certificate will be carried out against the version of the standard as started on the certificate.

### 1.2 Certification

#### 1.2.1 General

Organizations complying with the requirements of this standard may receive a certificate for the relevant type of service offered. This may be, but is not limited to a (maritime or offshore) academy, training provider or simulator centre.

**Guidance note 1:**

For maritime or offshore training and education flag states/continental shelves may require learning programmes to be verified against a corresponding model course or other relevant standard. The standard [DNVGL-ST-0008 Learning programmes](#) was developed for this purpose.

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Certification will include:

- a document review of the management system
- an initial audit to verify compliance
- annual audits for retention of the certificate
- a renewal audit.

#### 1.2.2 Document review

A review of the management system documentation shall be performed to verify compliance with this standard and any additional company requirements needed to achieve the defined quality objectives. The following documentation is required for the document review:

- scope of the management system

- 
- quality policy
  - quality objectives
  - description and mapping of the organization's core and support processes, including their interrelations
  - procedure for learning programme development and maintenance
  - procedure for control of documented information related to the requirements of this standard
  - procedure for handling non-conformities and unintentional events.

Possible non-conformities are reported in writing to the organization's management. Corrective actions shall be taken to ensure that the non-conformities are closed within the agreed due date.

### 1.2.3 Initial audit

An initial audit shall be performed to verify compliance with the standard, the documented management system and the implemented processes. Before an initial audit can be carried out the management system shall be implemented at least three months prior to initial audit.

The initial audit will include each branch-office in the scope of certification. Possible non-conformities are reported in writing to the organization's management. Corrective actions to identified non-conformities shall be taken within the agreed timeframe.

### 1.2.4 Annual audits

Annual audits shall be satisfactorily completed in the three month period, either side of the certificate anniversary date. Annual audits will also include 25% of the branch offices included in the certification scope on a sample basis, with a minimum of one. The audit schedule shall ensure that each branch office is audited at least once during the validity of the certificate, in addition to the initial audit and renewal audit. Possible non-conformities are reported in writing to the organization's management. Corrective actions to identified non-conformities shall be taken within the agreed timeframe.

### 1.2.5 Renewal audits

Renewal audits shall always take place within three months prior to the expiry date of the certificate and cover the full scope of certification, including all branch offices. Non-conformities shall be closed before the expiry date of the certificate.

### 1.2.6 Validity certificate

The certificate has a validity of five years. Validity of the certificate is subject to the organization complying with the requirements for annual audits. The certificate may be renewed following the satisfactory completion of a renewal audit. The organization is responsible for timely requesting annual and renewal audits.

## 1.3 Definitions

### 1.3.1 Terms

**Table 1-1 Terms**

<i>Term</i>	<i>Definition</i>
documented information	documents and records
documented procedure	a written description of a prescribed sequence of actions for a (partial or complete) process, with clearly defined input, output and references to interlinked procedures
documented routine	an activity or process in an organization which follows a regular and predictable pattern and may be substantiated by documented information
guidance note	an advice which is not mandatory, but with which DNV GL, in light of general experience, advises compliance. It is for the organization to decide whether to apply this or not
interested party (or stakeholder)	a person or organization that may affect, be affected, or perceive itself to be affected by a decision or activity
learning plan/curriculum	a document describing the individual training activities. It includes educational elements such as objectives, content, schedule, methods, lesson plans, teaching aids, evaluation and frame conditions
objective evidence	data supporting the existence or validity of something, to be obtained through observation, measurement, test or other means
organization	the company, or part of a company, to be certified
review	activity to determine the correctness, adequacy and effectiveness of a document, activity or process
top management	those who coordinate, direct, and control an organisation, who provide resources and delegate authority and can be held responsible for the success or failure of an organisation
training activities	all activities organised by a training provider in order to transfer knowledge, skills or attitudes, such as courses, seminars, computer based training or self-study programmes
training provider	an institution, academy or training centre offering training leading to the issuance of certificates, diplomas or other relevant competence documentation required by an administration or other party
validation	confirmation, through provision of objective evidence, that the requirements for a specific intended use or application have been fulfilled
verification	confirmation, through provision of objective evidence, that specified requirements are fulfilled



## 1.3.2 Abbreviations

**Table 1-2 Abbreviations**

<i>Abbreviation</i>	<i>Description</i>
ADDIE	analysis, design, development, implementation and evaluation
IMO	International Maritime Organization
ISD	instructional system design
OPITO	Offshore Petroleum Industry Training Organization
STCW	Standards of Training, Certification and Watchkeeping Convention

## SECTION 2 MANAGEMENT

### 2.1 Management responsibility

#### 2.1.1 Management commitment

Top management shall demonstrate accountability, leadership and commitment with respect to the quality management system, communicate the importance of its effective implementation and promote improvement. Top management shall take an active and leading role and understand its own duties in relation to the quality management system.

#### 2.1.2 Policy

The training provider's top management shall establish a quality policy and ensure that it:

- is appropriate to the purpose of the training provider
- includes a commitment to comply with requirements and continually improve the effectiveness of the management system
- provides a framework for establishing and reviewing quality objectives
- is communicated and understood within the organization
- is reviewed for continuing adequacy.

#### 2.1.3 Quality objectives

Top management shall ensure that quality objectives are:

- established, communicated and updated
- in alignment with the strategy and context of the organization
- measurable and consistent with the quality policy.

The arrangements needed for the achievement of these objectives shall be planned, implemented and monitored.

**Guidance note:**

Examples of measurable objectives:

- quality of delivered programmes
- instructor performance
- level of trainees satisfaction
- passing scores/exams
- bench marking against other training providers
- actual time spent compared to time schedules
- design of new learning programmes
- purchasing new equipment
- expansion in a new training market.

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#### 2.1.4 Responsibility and authority

The organization shall ensure that customer requirements are determined and met with the aim of enhancing customer satisfaction.

The organization shall identify and document interested parties/stakeholders (e.g. authorities, customers, developers, suppliers, industry associations), including their expectations and concerns.

The organization shall identify legal, ethical, regulatory and approval requirements that apply to the operations and act in accordance with these.

The organization shall define and document the tasks, responsibility, authority and the interrelation of all personnel who manage, perform and verify work affecting the quality of the organization's activities, particularly for personnel with the responsibility for:

- resource management
- initiating action to prevent the occurrence of non-conformities
- identifying and recording deficiencies related to training
- initiating, recommending or providing solutions through designated channels
- verifying the implementation of solutions
- controlling the processes.

The organization shall identify associated risks and external factors which may influence the quality of the training products and services and take measures to mitigate and manage them. This shall include risks related to the organization and operational environment and risks related to specific learning programmes.

The organization shall determine and maintain the competence necessary to meet current needs and anticipate changes in required competence as a result of new ventures, products and markets, ensuring the ability of the organization to deliver training products and services in line with market expectations.

**Guidance note:**

organizations may need to comply with additional (local) requirements, not specifically mentioned in this standard. (e.g. occupational health and safety, environment)

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## 2.1.5 Management system

The organization shall implement and maintain a documented management system as a means to ensure that the performance of the organization and learning activities conform to specified requirements and are transparent. The organization shall ensure that ample resources are available and effort is put into the management system to:

- identify the processes required
- determine the sequence and interaction of these processes
- ensure that operation and control of the processes are effective
- ensure availability of necessary resources/equipment for development, delivery and maintenance of learning programmes
- identify internal competence development needs
- monitor, measure and analyse the different processes
- maintain the integrity of the management system when modifications are planned and implemented
- ensure continuous improvement of the processes
- communicate quality and safety related updates and information.

Any branch office to which the certification applies shall be included in the scope of the quality management system.

## 2.1.6 Management representation

Top management shall either appoint a member in the organization or establish a functioning structure in which responsibilities and authority are assigned for:

- monitoring that processes needed for the management system are established, implemented and maintained
- reporting on the performance of the management system to the management for review and as a basis for improvement of the management system.
- increasing awareness of customer requirements throughout the organization

## 2.1.7 Management Review

Top management shall review the management system at defined intervals to ensure its:

- continuing suitability
- adequacy
- effectiveness in satisfying the requirements of this standard
- effectiveness in satisfying the management's policy and objectives
- assessment of opportunities for improvement.

Management reviews shall be performed at least annually, and documented information maintained. Reviews shall consist of well-structured and comprehensive evaluations which include, but are not limited to:

- considerations for updating the management system in relation to internal and external changes
- internal and external audit reports
- recommendations for improvement
- feedback from trainees, customers, authorities and other interested parties/stakeholders
- process performance and conformity of training, including non-conforming teaching and non-conforming trainees
- status of preventive and corrective actions and effectiveness
- follow-up actions from previous management reviews
- incidents, accidents and near-misses
- performance of external service providers
- adequacy of resources/equipment
- effectiveness of actions to address risks.

Output from the management review shall include decisions and actions related to:

- improvement of the effectiveness of the management system and its processes
- improvement of teaching, curriculum, equipment and facilities related to trainees and statutory requirements
- reducing risks related to health, safety and environment
- resource needs.

## 2.1.8 Internal audits

The organization shall perform internal audits to monitor the correct implementation of the management system and determine its effectiveness. The audits and follow-up actions shall be documented and records kept. Audit frequency shall be established ensuring that internal audits are at least performed annually.

An audit plan or schedule shall be established and include all areas of the management system and training organization. It shall cover the following items:

- specific areas/courses to be audited in a defined timeframe
- available internal auditors
- reported non-conformities, conclusions and recommendations.

The qualifications of personnel performing internal audits shall be defined. Audits shall be carried out by qualified internal auditors who shall not be directly involved in/responsible for the area being audited.

Internal audits and verification shall include verification if learning programmes are achieving the agreed or stated objectives, are delivered as agreed and are being adequately maintained.

The results of the audits shall be brought to the attention of the manager responsible for the area audited. Responsible management shall take timely corrective action on the deficiencies found during the audit.

## 2.1.9 Non-conformities, unintentional events and complaints

The organization shall establish documented procedures for reporting and dealing with non-conformities and unintentional events. The organization shall plan and implement a monitoring, measurement, analysis and improvement process needed to ensure conformity of the quality management system with defined standard(s).

The organization shall initiate actions to eliminate the cause of potential non-conformities in order to prevent their occurrence (preventive actions). A documented procedure shall be established to:

- determine potential non-conformities and root causes
- evaluate actions to prevent occurrence of non-conformities
- determine and implement action required
- record action taken
- review preventive action taken.

The organization shall initiate action to eliminate the root cause of non-conformities in order to prevent recurrence (corrective actions). A documented procedure shall be established to:

- review non-conformities
- investigate the root cause
- evaluate actions to prevent recurrence
- determine and implement action required
- record action taken
- review corrective action taken.

The organization shall establish effective arrangements for handling complaints. Responsibility for reviewing, handling and follow-up of complaints shall be defined. Documented information shall be kept, status and results shall be reviewed regularly and used as input for the management review.

## 2.1.10 Communication

Top management shall ensure that appropriate communication channels are established and that communication regarding the implementation, changes and effectiveness of the management system takes place.

**Guidance note:**

Examples of communication channels are:

- notice boards
- intranet
- emails
- meetings, briefings, orientations
- internal magazines
- suggestion forms.

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## 2.2 Process control

### 2.2.1 Processes

Processes, including support processes, affecting the overall quality of training activities/services provided, shall be mapped including their interrelations. Documented information demonstrating process control shall be kept. The following shall be described:

- required documented procedures as defined in this standard

- how the management system is implemented and maintained
- the interaction between the processes within the organization
- how and to what extent the organization assesses and mitigates risks
- the ownership of the processes and how they are controlled (KPIs)
- how outsourced processes are controlled (e.g. outsourced courses, externally hired instructors).

## 2.2.2 Managing changes

The organization shall have a documented routine in place to manage changes to the organization, processes and operations in a way that the quality and safety of the services are not negatively affected.

## 2.3 Documented information

### 2.3.1 Document and data control procedures

The training provider shall establish and maintain a documented procedure to control all documents and data related to the requirements of this standard. The structure of the documentation used in the management system shall be outlined.

The organization shall have a process in place to ensure that only approved documentation and learning material are used for learning programme delivery.

The documents and data shall be reviewed and approved for adequacy by authorised personnel prior to release. A master list or equivalent document control procedure identifying the current revision status of documents shall be established and be readily available to prevent the use of invalid and/or obsolete documents or data. The control shall ensure that:

- correct versions of appropriate documents/data are available at all relevant locations
- invalid and/or obsolete documents/data are promptly removed from all points of issue or use, or otherwise assured against unintended use
- changes to documents and data shall be reviewed and approved by the same functions that performed the original review and approval, unless specifically designated otherwise
- changes are emphasized and communicated
- up-to-date documents are available as necessary to meet requirements
- correct learning programmes are delivered consistently
- documents of external origin are identified and their distribution controlled
- documents remain legible, readily identifiable and retrievable.

Arrangements shall also include:

- clear identification of which information is controlled
- clear responsibility for its maintenance.

**Guidance note:**

Controlled documents may be:

- quality documentation
- course manuals/syllabi
- lesson plans
- examination/assessment procedures and documents
- programme information
- regulations and requirements to be met.
- relevant legislation
- contracts.

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## 2.3.2 Records and filing

Records shall be kept and maintained to provide evidence of conformity to requirements and of the effective functioning of the management system. Records shall remain legible, readily identifiable and retrievable. The organization shall establish a documented procedure to define the controls needed for the identification, storage, protection, retrieval, retention time and disposal of records, including trainee records. Procedures for data protection shall be established.

**Guidance note:**

Examples of records:

- reports from external validating bodies
- contract review records
- design review records
- non-conformities
- internal audit records
- management review records
- learning programme review records
- internal communication records
- records demonstrating process control
- approved specialist lectures or advisers.

Examples of trainee records:

- previous experience and qualifications
- medical (self) declaration
- any information pertinent to a trainee's progress
- scores and assessment records of trainees
- issued certificates
- personal details.

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Retention times for quality records shall be established and regulatory requirements shall be considered. Records may be kept in any media or format (electronically, hard copies etc.) unless specifically stated by applicable law or regulations.

## 2.3.3 Maintaining accreditations

The organization shall demonstrate the ability to monitor and maintain other received accreditations, certifications and permits and take timely measures to ensure continuity.

**Guidance note:**

Examples: Approvals from flag states or industry organizations, permits to operate, etc.

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## 2.4 Evaluation of suppliers

### 2.4.1 General

If the organization decides to outsource any of its processes, the organization remains responsible at all times and shall continue to demonstrate control over these outsourced processes. The stipulations of the company's quality management system shall also apply to external parties performing activities or delivering a learning programme on behalf of the organization.

The organization shall evaluate and select suppliers based on their ability to supply products or services in accordance with its requirements. Criteria for selection, evaluation and re-evaluation shall be established. Records of evaluation and re-evaluation of product and service suppliers shall be maintained.

This also applies to externally hired training staff, further described under [2.6.3].

## 2.4.2 Purchasing products and services

The organization shall ensure that acquired products and services conform to specified requirements. The type and extent of control applied to the supplier/service provider and the purchased product or service may vary based on its criticality.

**Guidance note:**

Examples of products might be:

- learning materials (in soft and hard copy forms)
- sub-contracted training
- sub-contracted tutors, lectures, training organizations
- external training locations
- training equipment
- maintenance.

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As part of the purchasing process, purchasing information shall clearly describe the product or service to be acquired, including where appropriate:

- technical specifications
- certification and approval requirements
- requirements for qualification of personnel
- management system requirements.

Adequacy of the specifications and requirements shall be considered before suppliers are contacted.

## 2.5 Identification and traceability

### 2.5.1 General

The organization shall establish a documented routine for identifying programmes and programme elements during all stages of development, delivery and maintenance.

The organization shall establish suitable means to ensure traceability of trainees progress from time of application to the examination.

**Guidance note:**

Examples:

- list of attendants
- who provided the training
- who performed the assessment
- date of examination.

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## 2.6 Staff competency and training

### 2.6.1 Knowledge management

The organization shall identify and maintain the knowledge that is required for its operations and continual improvement of its processes. It shall assess risks related to the loss of knowledge and have a process in place to ensure transfer of knowledge to ensure continuity of products and services.

**Guidance note:**

Required knowledge, understanding and skills are specific to an organization. These can be acquired through formal and informal learning as well as experience and must be used and shared to ensure consistent and continued delivery of its products. Organizational knowledge can be developed, secured and maintained through e.g.:

- training
- experience
- lessons learned
- collected and shared knowledge and experience
- improvements in processes and products
- own intellectual property
- industry standards
- academic education and sources
- conferences
- input from the industry (customers, suppliers, industry organizations).

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### 2.6.2 Staff performance

The organization shall:

- define the necessary competence for personnel performing work affecting the quality of training and education
- determine training needs of internal staff and externally hired resources
- take actions to satisfy these competence development needs
- evaluate the effectiveness of action taken
- ensure that personnel are aware of the importance of their work and how they contribute to the quality objectives.

**Guidance note:**

Training needs may be identified through observation and appraisal interviews. Effectiveness of actions taken can be verified through evaluation of instructors.

The standards [DNVGL-ST-0024 Competence of maritime teaching professionals](#), [DNVGL-ST-0025 Competence of maritime simulator instructors](#) and IMO Model Course 6.09 *Training Course for Instructors* address such competencies.

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### 2.6.3 Staff development

The organization shall have a mechanism in place to improve the competence of teachers/trainers/instructors, ensuring that their knowledge, understanding and skills continue to develop in line with market expectations and regulatory and technological developments.

In addition to content expertise, pedagogical competence development is requirement for instructional staff. Trainers shall have completed a learning programme in instructional techniques/pedagogics. Records of received training or education shall be maintained.



## 2.6.4 Use of externally hired staff

The organization shall ensure that the criteria, familiarisation and staff development processes for own training staff are also applied to any external party delivering training on behalf of the organization. This includes process familiarisation, monitoring and evaluation of performance, pedagogical training, professional development, instructional alignment and use of approved learning programme material and lesson plans as intended by the organization.

## 2.6.5 Non conforming teaching

The organization shall establish documented routines for identifying and handling non-conforming teaching or performance of both internal staff and externally hired resources, influencing the quality of learning.

## SECTION 3 DEVELOPMENT AND MAINTENANCE

### 3.1 Development of learning programmes

#### 3.1.1 General

The organization shall maintain a documented procedure for the development and maintenance of learning programmes.

Learning programmes provided by the organization shall be developed, planned, delivered and evaluated in alignment with recognised instructional system design (ISD) principles. The interrelation of the following educational elements shall be analysed:

- purpose
- objectives
- target group
- contents
- methods
- general conditions
- evaluation.

**Guidance note:**

A recognised instructional system design model is the so-called ADDIE-model. ADDIE is an acronym for the various phases in development of learning programmes, being analysis, design, development, implementation and evaluation.

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#### 3.1.2 Managing development of learning programmes

The organization shall plan and control the development of learning programmes. The organization shall assess the risks associated with the programme to be developed, in relation with own strategy and philosophy and feasibility.

The organization shall manage the interfaces between the different groups involved in the development to ensure effective communication and clear assignment of responsibility.

**Guidance note:**

Examples of stages in development:

- feasibility study and decision
- project plan
- establish input requirements
- curriculum
- course plans and descriptions
- scenario development
- teaching and learning material
- handouts
- evaluation material
- assessment material
- verification
- pilot delivery/validation
- completion and documentation.

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### 3.1.3 Input requirements learning programmes

Requirements relating to learning programmes shall be determined and records maintained. Input shall include:

- customer expectations
- functional and performance requirements
- applicable statutory and regulatory requirements
- other requirements essential for development
- qualification of developers.

The input shall be reviewed for adequacy. Requirements shall be complete, relevant, clear and not in conflict with each other.

**Guidance note:**

Examples of functional and performance requirements are:

- competence tables (STCW, IMCA, governmental, other)
- model courses (IMO, OPITO, GWO, other industries)
- IMCA guidelines
- DNV GL SeaSkill™ competence standards

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### 3.1.4 Output learning programmes

The learning programmes shall be verified against the design and development requirements and shall be approved prior to release.

Output of developed learning programmes shall:

- meet input requirements
- provide appropriate information for further design and implementation
- specify risks and safety aspects related to learning programme
- specify required resources.

Learning programmes shall be developed and delivered using a mixed variety of teaching methods and formats to increase the learning effect and promote active participation.

**Guidance note:**

The standard [DNVGL-ST-0008](#) *Learning programmes* provides requirements for learning programmes with respect to development, content and delivery, independent of location and training methods used.

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## 3.2 Development review

### 3.2.1 General

At suitable stages, development work shall be reviewed in accordance with an established procedure to:

- evaluate if the result so far meets the requirements and/or customer expectations
- identify any problems and propose necessary actions
- assess risks associated with the developed learning programme.

Records of the review results and corresponding actions shall be kept.

**Guidance note:**

A development review should be analytic. Critical questions should be asked, to assure that the learning programme is constructed in a logical and acceptable way. A development review covers, but is not limited to:

- curriculum
- presentations
- time tables
- hand-outs
- lesson plans.

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## 3.3 Development verification and validation

### 3.3.1 Verification

Verification of the final product shall be performed in accordance with an established procedure to ensure that the output meets the input requirements. Records of the result of the verification and corresponding actions shall be kept.

**Guidance note:**

This may be, but is not limited to:

- reviewing learning material prior to issue
- comparing the new learning programme with a similar proven training course or programme
- determining the adequacy of the learning environment, scenarios and resources.

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### 3.3.2 Development validation/pilot courses

A pilot course shall be performed for validation purposes to ensure that all requirements for intended use are met and the learning programme as designed is feasible, before it is released and becomes operational. Results of the pilot/validation, any necessary actions and improvements made shall be communicated with the customer and documented. The final product shall be formally approved for use by the responsible person.


## 3.4 Maintenance of learning programmes

### 3.4.1 Review and revision of learning programmes

The organization shall define the process and authorisations to review and revise learning programmes and associated documentation and the approval process of changes. All changes and modifications shall be identified, documented, reviewed and approved before their implementation.

Reviews shall include the following:

- changes in course or programme criteria
- applicable customer expectations, requirements or regulations
- results from evaluation reports
- feedback on trainee satisfaction
- assessment/examination results
- changes in qualification of instructional staff
- learning programme objectives in relation to obtained results
- risks and incidents in relation to the programme



— condition of learning material and training equipment.

The steps involved in revision of existing learning programmes shall follow the same documented routine as described in [3.1] to [3.3]. The organization may define when an actual revision shall be performed, based on the criticality of changes to be incorporated. Learning programmes shall at least be revised whenever a review reveals a mismatch between the programme and the expectations, demands and/or changes in requirements or regulations.

## SECTION 4 DELIVERY

### 4.1 Planning and responsibilities

#### 4.1.1 Planning

The organization shall plan the delivery of learning programmes, from the booking process, the process of assigning resources to the actual delivery and evaluation. All processes which affect the quality of delivery of the learning programmes shall be controlled and documented.

#### 4.1.2 Frame conditions

The maximum number of participants shall be stated for each learning programme. The training provider shall establish a documented routine for:

- registration of participants
- verifying if participants fulfil prerequisites prior to enrolling
- distribution of confirmation letters/joining instructions, including relevant information such as: programme, participant list, accommodation, deadlines, health requirements (physical/mental aspects of the programme)
- learning programme preparation.

The organization shall define the responsibility for checking the following before any learning programmes are scheduled and delivered:

- availability of competent staff
- availability of complete approved learning programme documentation (lesson plans, audio-visual aids and other support/guidance material, handouts)
- adequacy of training equipment
- adequacy of the premises/location for delivering the learning programme (class rooms, conference rooms, practice location, showers, dressing rooms, ambient noise, safety, hygiene, etc.).

### 4.2 Operation

#### 4.2.1 Delivery of learning programmes

Routines shall be established for:

- delivering learning programmes, running (simulator) exercises and performing assessments
- ensuring that instructors are aligned in their approach and opinions, focus on the purpose and objectives of the learning programmes and present the contents of the learning programme and/or simulator exercise in a structured and aligned way
- ensuring that information is collected of the trainee's expectations and that these are compared to the objectives of the learning programme. Actions to align expectations shall be agreed if these do not correspond
- handling emergency situations during class activities
- ensuring that evaluation or assessment criteria are clearly defined and made known to the trainees at the start of the learning programme.

Routines shall also be established to ensure that:

- at the start of each lesson/session/exercise the trainer focuses on why the topic is important and which learning objectives shall be met
- lessons/sessions/exercises are delivered in accordance with defined time frames

- progression of the learning programme aligns with the schedule
- after each lesson/session/exercise the trainer revisits the content, aim and learning objectives and determines if learning objectives have been met.

## 4.2.2 Use and maintenance of equipment

Documented routines shall be established to ensure proper use of training equipment and facilities.

**Guidance note:**

Such equipment could be:

- machinery systems
- bridge systems
- systems for loading/discharging
- fire/safety equipment
- welding equipment
- simulators
- servers
- instruments
- class rooms
- projectors.

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Procedures shall be established to ensure that:

- risks in relation to the use of training equipment and facilities are recognised
- equipment and systems are operated in a safe and efficient manner
- maintenance of equipment is planned according to manufacturer's instructions
- operators (trainees/instructors) of such systems are provided with, and use, relevant personal protective equipment
- work conditions are according to rules and regulations
- measuring devices which influence safety, health or environment are calibrated periodically.

Documented information of maintenance and calibration shall be kept.

**Guidance note:**

Examples of equipment requiring calibration:

- manometers on compressors
- oxygen meters
- gas detectors.

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## 4.2.3 Hazardous materials, goods and substances

Materials that pose safety, health or environmental hazards shall be identified. A procedure shall be established for safe handling, use, storage and disposal.



**Guidance note:**

Such materials could be:

- sharps
- extinguishing agents
- diesel/lubrication oils
- tools
- pressurized cylinders
- chemicals
- welding rods.

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## 4.2.4 Use of simulators

The Standards of Training, Certification and Watchkeeping (STCW) Convention 1978, as amended, requires that simulators used for mandatory simulator-based training and as a means to demonstrate competence (assessment) and/or to demonstrate continued proficiency required by the same convention, shall be approved by the relevant maritime administration (see STCW Regulations I/12 and A-1/12).

Simulators used for training and assessment against other standards shall be suitable to reach the learning objectives and enable verification of performance against defined criteria.

**Guidance note:**

[DNVGL-ST-0033](#) *Maritime simulator systems* has formed the foundation for simulator certification for several decades. It is used to determine the adequacy, scope and quality of a simulator, both on type approval level intended for the simulator manufacturer (resulting in a statement of compliance) and, more importantly for training providers, as a product certificate, demonstrating that the simulator as installed or embedded performs adequately.

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## 4.3 Customer property

### 4.3.1 General

The organization shall exercise care with customer property while it is under the organization's control or being used by the organization. Confidential information provided by customers shall be stored in a secure location. If customer property is lost or damaged, this shall be reported to the customer and documented information shall be maintained.

**Guidance note:**

Examples of customer property might be:

- sensitive information about trainees
- licensed products (i.e. company specific training programmes)
- equipment, plans, facilities provided by customers for use in the training or learning programme development.

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## SECTION 5 PERFORMANCE

### 5.1 Evaluation

#### 5.1.1 Evaluation of organizational performance

The organization shall ensure that a learning programme is delivered to agreed requirements and that teaching and learning activities are carried out as defined.

**Guidance note:**

Examples of how this can be done:

- observation
- received complaints
- direct communication with trainees
- questionnaires/evaluations.

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The organization shall apply suitable methods for monitoring and, where applicable, measuring the effectiveness of learning programme delivery.

**Guidance note:**

This may be, but is not limited to:

- evaluation forms from trainees
- evaluation forms from teachers
- passing scores from tests
- internal/external audits
- competence of trainers
- progress in line with time schedules.

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#### 5.1.2 Evaluation of trainees

Documented routines shall be established for final assessment and examination of trainees. The scores for academic topics and performance elements shall be leading in defining pass/fail criteria and assessing delegates.

Relative weighing of theoretical understanding and critical performance shall be considered when determining passing scores, based on criticality of the various competencies.

**Guidance note:**

The procedure may include, but is not limited to:

- assessment methods
- proportioning of practical/theoretical tests
- passing level.

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#### 5.1.3 Non-conforming trainees

The organization shall establish routines for handling trainees not performing as expected or required. The organization shall establish routines for re-examination in case a trainee fails to pass an examination.



### 5.1.4 Multiple assessments

The organization shall use unique versions of assessments/examinations to avoid repetition in case of re-examination or for those following a refresher training and assessment. For theoretical examinations shuffling the same questions and/or answers does not meet the criterion of unique examinations.

The training provider shall have a mechanism in place to validate and maintain questions used for summative assessments.

## 5.2 Trainee certificates

### 5.2.1 General

The organization shall establish routines for the certificate generation and storing process and clearly indicate the scope of the training on the certificate.

**Guidance note:**

This may include, but is not limited to:

- content of certificates
- distribution of certificates
- filing.

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## CHANGES – HISTORIC

There are currently no historical changes for this document.

### **About DNV GL**

Driven by our purpose of safeguarding life, property and the environment, DNV GL enables organizations to advance the safety and sustainability of their business. We provide classification, technical assurance, software and independent expert advisory services to the maritime, oil & gas and energy industries. We also provide certification services to customers across a wide range of industries. Operating in more than 100 countries, our experts are dedicated to helping our customers make the world safer, smarter and greener.

SAFER, SMARTER, GREENER