Algorithm

1. Start

2. Accept the number of terms (n) from the user

3. Validate that n is a positive integer

4. If n == 1, print 0

5. If n >= 2, initialize first = 0, second = 1, and print them

6. Use a loop from 3 to n:

   o Compute the next term as next = first + second

   o Print next

   o Update first = second, second = next

7. Optionally, save the sequence to a file

8. End

PSEUDOCODE:

```
BEGIN

  PRINT "Enter the number of terms:"

  READ n

  IF n <= 0 THEN

     PRINT "Please enter a positive integer"

     EXIT

  ENDIF

  PRINT "Fibonacci Sequence:"

  first = 0

  second = 1

  IF n >= 1 THEN

     PRINT first

  ENDIF

  IF n >= 2 THEN

     PRINT second

  ENDIF

  FOR i FROM 3 TO n DO

    next = first + second
```

PRINT next

    first =second

    second = next

  ENDFOR

  PRINT "Do you want to save the sequence to a file? (Y/N)"

  READ choice

  IF choice = "Y" THEN

      WRITE sequence to file

  ENDIF

END

FLOWCHART: